

Ministry of Internal Affairs of Ukraine
DNIPRO STATE UNIVERSITY OF INTERNAL AFFAIRS
EDUCATIONAL AND SCIENTIFIC INSTITUTE
OF LAW AND INNOVATIVE EDUCATION
INTERNATIONAL RELATIONS AND SOCIAL AND HUMANITIES CHAIR

Tetyana Ishchenko
Inna Kozubai
Anna Maksymova
Iryna Nikitina

**LEARNING A FOREIGN LANGUAGE
FROM VIDEO MATERIALS**

Tutorial

Dnipro
2024

УДК 811.111:81'42:81'373.48

В 41

*Recommended for printing by the Scientific Council
of Dnipropetrovsk State University of Internal Affairs
(protocol №12 of December 22, 2022)*

REVIEWERS:

Nataliia TATSENKO – Doctor of Philology, Professor,
Head of the Foreign Languages Chair of Sumy State University;
Kateryna VASYLYNA – Ph.D. in Philology, Associate Professor,
Associate Professor of the English Philology and Linguodidactics Chair,
Dean of the Foreign Philology Department
of Zaporizhzhia National University

V 41 Learning a foreign language from video materials : Tutorial / T. Ishchenko, I. Kozubai, A. Maksymova, I. Nikitina. Dnipro : Dnipro State University of Internal Affairs, 2024. 180 p.

ISBN 978-617-560-048-1

The tutorial was created to improve the study of a foreign language with the help of video materials. It consists of 12 units, each containing authentic video resources on topics provided for in the curriculum and interactive vocabulary exercises based on the platform “Quizlet”. Videos and quizlets have unique qr-codes to facilitate the educational process. There is an appendix with links to the videos, quizlets, scripts of the units, and the wordlist and the keys for all the key vocabulary.

The tutorial aims to improve listening skills and expand vocabulary on the proposed topics. The book can be used in class or as a self-study guidebook. The tutorial is intended for the higher education applicants of the first level of studying (Bachelor's degree) of DSUIA and is a component of the system of methodical materials for independent work of the discipline “Foreign Language”.

© All photos were taken from Internet

В 41 Вивчення іноземної мови за відеоматеріалами : навч. посіб. / Т. В. Іщенко, І. В. Козубай, А. Я. Максимова, І. П. Нікітіна. Дніпро : Дніпров. держ. ун-т внутр. справ, 2024. 180 с.

Посібник був створений для вдосконалення вивчення іноземної мови за допомогою відеоматеріалів. Він складається з 12 розділів, кожен із яких містить автентичні відео ресурси на теми, передбачені робочою програмою навчальної дисципліни, та інтерактивні лексичні вправи, розроблені на платформі «Quizlet». Відео та матеріали в «Quizlet» мають унікальні QR-коди для спрощення навчального процесу. У додатку до посібника містяться посилання на відео, матеріали з «Quizlet», скрипти розділів, словник та відповіді до всіх ключових лексичних завдань.

Метою посібника є покращення навичок аудіювання та розширення словникового запасу з обраних тем. Посібник можна використовувати як на практичних заняттях, так і для самостійного навчання. Він призначений для використання здобувачами першого курсу першого (бакалаврського) рівня вищої освіти ДДУВС та є складовою системи методичних матеріалів для самостійної роботи з навчальної дисципліни «Іноземна мова».

ISBN 978-617-560-048-1

© Authors, 2022

© DSUIA, 2024

CONTENTS

INTRODUCTION	5
Unit 1. FAMILY TIES	7
Video 1. King Charles III's First Speech as Monarch	7
Video 2. How the Nuclear Family Broke Down	11
Unit 2. FOOD, FOOD, FOOD!	15
Video 1. The History of Chocolate	15
Video 2. How It's Made: Tea	20
Unit 3. WONDERS OF NATURE	25
Video 1. Nazca Lines: Peru's Mysterious Geoglyphs	25
Video 2. Seven Wonders of Nature	30
Unit 4. SPECIAL RELATIONS	36
Video 1. A Brief History of Dogs	36
Video 2. Elephants	40
Unit 5. A PLACE TO CALL HOME	45
Video 1. The History of Balmoral Castle	45
Video 2. The Remote Visa – Free Island at the Top of the World	50
Unit 6. STEADY, READY, GO!	55
Video 1. The Ancient Origins of the Olympics	55
Video 2. Ten Most Unusual Extreme Sports	59
Unit 7. EXTREME SITUATIONS	64
Video 1. The Deadly Race to the South Pole	64
Video 2. Mountaineering: Height Doesn't Matter	69
Unit 8. TIME TO SPARE	73
Video 1. The Sahara Desert Ecosystems	73
Video 2. The First Person to Fly a Balloon Around the Globe	77
Unit 9. HIGH-TECH WORLD	81
Video 1. Five Interesting Facts About Atlas by Boston Dynamics	81
Video 2. Building the World's Largest Power Plant	86
Unit 10. THAT'S ENTERTAINMENT	91
Video 1. The Great Barrier Reef	91
Video 2. Beginners Guide To Windsurfing	96

Unit 11. LESSONS TO LEARN	100
Video 1. Oxford University Highlights	100
Video 2. Ten Harvard University Facts	104
 Unit 12. THE BODY BEAUTIFUL	109
Video 1. How to Improve Memory	109
Video 2. Uncovering The Brain's Biggest Secret	114
 ADDITIONAL MATERIALS	118
Video links	118
Quizlets	118
Wordlist	119
Transcripts	141
Unit 1 Video 1	141
Unit 1 Video 2	143
Unit 2 Video 1	144
Unit 2 Video 2	145
Unit 3 Video 1	146
Unit 3 Video 2	147
Unit 4 Video 1	149
Unit 4 Video 2	149
Unit 5 Video 1	151
Unit 5 Video 2	153
Unit 6 Video 1	154
Unit 6 Video 2	155
Unit 7 Video 1	157
Unit 7 Video 2	159
Unit 8 Video 1	159
Unit 8 Video 2	160
Unit 9 Video 1	161
Unit 9 Video 2	163
Unit 10 Video 1	164
Unit 10 Video 2	165
Unit 11 Video 1	167
Unit 11 Video 2	169
Unit 12 Video 1	171
Unit 12 Video 2	173
 Keys	174
 NOTES	178

INTRODUCTION

The tutorial “Learning a Foreign Language from Video Materials” was written to help students develop listening skills, and learn and boost their new vocabulary with the help of modern interactive platforms that will benefit the process of language comprehension and make the whole educational process uncomplicated and enjoyable. This Tutorial provides around 120 hours of English learning. It follows from Close-Up (B1) and is an addition to the language learning series.

The tutorial “Learning a Foreign Language from Video Materials” introduces new features to challenge the students that learning English is interesting and informative.

Key features:

- ***Theme-related video material*** was selected from a wide variety of sources, including authentic shorts. Videos are a great source of “real-life” English language, they are short and exciting. Besides, pictures will help the students to understand what is being said.
- ***Before you watch*** section presents, practice and extend the language in meaningful contexts.
- ***Quizlet*** is a web-based application that allows users to study and train information through interactive tools. Lots of visuals that illustrate the words, lots of language repetition, good pictures and sound quality are available anywhere with an internet connection.
- ***QR codes*** direct users to specific multimedia content (videos, Quizlet) and can be used on various mobile device operating systems.

Videos can also help to:

- become familiar with different accents;
- watch facial expressions, body language and gestures used in different cultures;
- develop their understanding of the world and “real” situations outside the classroom.

Most of all, it can be a great source of motivation – one of the most important factors in language learning.

This book aims to enable students to function effectively in English at Intermediate Level. This book focuses on improving listening skills thanks to authentic videos and boosting the main vocabulary based on video resources with the help of the Quizlet platform. The units of the book are presented in realistic contexts ranging from family-, food-, and relationship-related topics to technology-, education-, entertainment-, and environment-related issues accompanied by a wealth of attractive photographs.

There are twelve units in the book. Each unit consists of two main parts based on videos with subdivisions into pre-watching, while-watching and after-watching activities. The “Before you watch” part includes Quizlet drilling exercises where you can study the main vocabulary of the unit (on average 70-80 items per unit)

easily (studying, matching, testing tasks). The “While you watch” part is presented with contemporary video resources and some traditional exercises such as true or false statements and others the objective of which is improving listening skills. The “After you watch” part aims at checking the main understanding of the video and contains gap-filling activities.

There is an appendix with the video and Quizlet links, scripts of the units, and the wordlist for all the key vocabulary and the keys at the end of the book.

It is very important to keep a record of new words and expressions that you learn. In this book, you will find a ‘note page’ where you can put down useful words and expressions from the units. Keep your notes and review them regularly so that the words and expressions become an 'active' part of your vocabulary.

We also recommend keeping a good dictionary with you and referring to it when necessary. For general vocabulary reference, the Macmillan English Dictionary, the Collins English Dictionary, Longman Dictionary of Contemporary English are also excellent resources.

The units in the book can be used in any order you like, but we should advise starting from the initial ones. When you have been working through a group of units it is a good idea to repeat some of them after a certain period to see how much you have learnt. Repeating work is essential. Although the units and exercises are designed for self-study they can be easily adapted for class work as well. The book is organized around the topics that are included in the curriculum of the discipline “Foreign Language”.

We hope you appreciate using the book.

Unit 1. FAMILY TIES

Video 1. King Charles III's First Speech as Monarch



Before you watch

A. Do you know the answers to these questions?

- When did Princess Elizabeth broadcast her first speech?
- Who succeeds King Charles III as Prince and Princess of Wales?
- How does King Charles III see the Role of the King?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 1 Video 1.1](#)

destiny (n)	the hidden power believed to control future events; fate
assume (v)	take over a throne, office, or other position from
succeed (v)	take or begin to have (power or responsibility)

mourn (n)	feel regret or sadness about
marginal (adj)	relating to or at the edge or margin
lifelong (adj)	lasting for the whole of a person's life
pledge (v)	commit a solemn promise
broadcast (n)	a radio or television programme or transmission
devote (v)	give all or most of one's time or resources to
commitment (n)	the state of being dedicated to a cause, activity, etc.
dedication (n)	the willingness to give a lot of time and energy to something because it is important
service (n)	the action of helping or doing work for someone
realm (n)	a kingdom
testify (v)	give evidence as a witness
tradition (v)	the transmission of customs or beliefs from generation to generation
monarchy (n)	a form of government with a monarch at the head
unique (adj)	being the only one of its kind
unswerving (adj)	not changing or becoming weaker; steady or constant
undertake (v)	commit oneself to and begin (e.g. responsibility)
overseas (adv)	in or to a foreign country, especially one across the sea
decade (n)	a period of ten years
privilege (v)	grant a privilege or privileges to
global (adj)	relating to the whole world; worldwide
vital (adj)	absolutely necessary; essential
condolences (n)	an expression of sympathy, especially on the occasion of the death of a person's relative or close friend

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 1 Video 1.2](#)

1. profound (adj)	a) unmistakable
2. heartfelt (adj)	b) firm
3. passing (n)	c) hardship
4. pledge (v)	d) support
5. abiding (adj)	e) deep
6. unerring (adj)	f) unchangeable
7. privation (n)	g) commitment
8. endeavour (v)	h) promise
9. steadfast (adj)	i) sincere
10. uphold (v)	j) try
11. dedication (n)	k) death
12. unswerving (adj)	l) faithful
13. overseas (adv)	m) abroad

While you watch



[King Charles III's first speech as monarch](#)

D. Watch the video and decide if these statements are True or False.

1. HM The Queen served the people for more than 80 years.
2. In 1947, Queen Elizabeth II pledged in a broadcast from Cape Town to the Commonwealth to devote her life to the service of her people.
3. The sovereign is the Supreme Head of the Church of England.
4. William and his wife Catherine are the new Prince and Princess of England.
5. Harry and Meghan build their lives overseas.

E. Watch the video again and circle the words you hear.

1. On her 21st/27th birthday, she pledged in a broadcast from Cape Town to the Commonwealth.
2. When the Queen came to the throne, Britain and the world were still coping with the privations and aftermath of *World War I/World War II*.
3. King Charles III's wife Camilla becomes the *Queen Consort/Princess Consort*.
4. King Charles III's life will change as he takes up new *charities/responsibilities*.
5. Prince William assumes the *Scottish/Welsh* titles.
6. Prince William succeeds his father as *Duke of Cambridge/Duke of Cornwall*.

After you watch

F. Complete the summary of the video below using these words.

<i>lifelong</i>	<i>background</i>	<i>mourned</i>	<i>assumes</i>	<i>constitutional</i>
<i>heir</i>	<i>the marginal</i>	<i>charities</i>	<i>endeavour</i>	<i>overseas</i>

Queen Elizabeth's was a life well-lived; a promise with destiny kept and she is 1) _____ most deeply in her passing. That promise of 2) _____ service I renew to you all today. As the Queen herself did with such unswerving devotion, I too now solemnly pledge myself, throughout the remaining time God grants me, to uphold the 3) _____ principles at the heart of our nation. In the course of the last 70 years, we have seen our society become one of many cultures and many faiths. The institutions of the state have changed in turn. Whatever may be your 4) _____ or beliefs, I shall 5) _____ to serve you with loyalty, respect and love.

My life will of course change as I take up my new responsibilities. It will no longer be possible for me to give so much of my time and energy to the 6) _____ and issues for which I care so deeply. But I know this important work will go on in the trusted hands of others. As my 7) _____, William now 8) _____ the Scottish titles which have meant so much to me. With Catherine beside him, our new Prince and Princess of Wales will, I know, continue to inspire and lead our national conversations, helping to bring 9) _____ to the center ground, where vital help can be given. I want also to express my love for Harry and Meghan as they continue to build their lives 10) _____.

Video 2. How the Nuclear Family Broke Down



Before you watch

A. Do you know the answers to these questions?

- Is family important to you? Why? Why not?
- Do you know the difference between an extended family and a nuclear one?
- Would you prefer to live in a big extended family or in a nuclear one?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 1 Video 2.1](#)

extended family (n)	a family which includes grandparents and other relatives
nuclear family (n)	a couple and their dependent children, regarded as a basic social unit
traditional (adj)	existing in or as part of a tradition; long-established
freakish (adj)	strange
slavery (n)	the practice or system of owning slaves
breakdown (n)	a failure of a relationship or system

equitable (adj)	fair and impartial
unconditional (adj)	not subject to any conditions
transactional (adj)	relating to exchange or interaction between people
burden (n)	a load, typically a heavy one
recent (adj)	having happened, begun, or been done not long ago
pick up (v)	take hold of and lift or move someone or something
Victorian era (n)	the period of Queen Victoria's reign (1837-1901)
threat (n)	a statement of an intention to inflict pain, injury, damage
chase (v)	run after
dominate (v)	be the most important or conspicuous person or thing in
relegate (v)	assign an inferior rank or position to
household (n)	a house and its occupants regarded as a unit
profit (n)	a financial gain
stable (adj)	not likely to move or change
cultish (adj)	person or thing that is popular among a particular group
affluent (adj)	having a great deal of money; wealthy
cataclysmic (adj)	large-scale and violent
kinship (n)	blood relationship
adrift (v)	float without being either moored or steered

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 1 Video 2.2](#)

1. freakish (adj)	a) benefit
2. stable (adj)	b) housekeeping
3. household (n)	c) load
4. chase (v)	d) relationship

5. affluent (adj)	e) lasting
6. cataclysmic (adj)	f) wealthy
7. profit (n)	g) fair
8. relegate (v)	h) fame
9. prominence (n)	i) downgrade
10. breakdown (n)	j) disastrous
11. kinship (n)	k) run after
12. equitable (adj)	l) abnormal
13. burden (adv)	m) collapse

While you watch



[How the Nuclear Family Broke Down](#)

D. Watch the video and decide if these statements are True or False.

1. Today a minority of American families are traditional two-parent nuclear families.
2. In the north, slavery separated many black families.
3. Big extended families had uncles, nieces, nephews around.
4. In the past, the extended family functioned as a moral unit.
5. Over the past half century, people are marrying later and divorcing more.
6. The general fertility rate in America is growing.
7. In an extended family people are always alone.

E. Watch the video again and circle the words you hear.

1. There was tremendous social *pressure/pleasure* to live in one of these nuclear families.
2. By 1960 the *nuclear /extended* family dominated.
3. When factories opened in big US cities in the late 19th and early 20th centuries, young people *left home/stayed at home*.
4. Over the past half century, the share of people living *alone/with a partner* in America has doubled.
5. But around the globe 38/83 percent of people still live in extended family units.
6. During the Victorian era *nuclear /extended* families reached its peak in the US and Britain.
7. We're in a moment of cultural lag. We have an *old archaic/modern* idea of what family is.

After you watch

F. Complete the summary of the video below using these words.

<i>married</i>	<i>extended</i>	<i>divorcing</i>	<i>chase</i>	<i>nuclear</i>	<i>slavery</i>
	<i>marrying</i>	<i>share</i>	<i>traditional</i>	<i>moral</i>	

It's an image that has been etched in our minds: a family is a 1) _____ couple with two-and-a-half kids. But today only a minority of American families are traditional two-parent nuclear families.

In 1875, 75 percent of American workers were farmers and most of the other 25 % worked in small family businesses. In the south, of course, 2) _____ separated many black families. But across most of society people lived in big 3) _____ families.

So, the extended family functioned as a 4) _____ unit. In it children were taught right from wrong and 5) _____ values were preserved. Then as factories opened in big US cities in the late 19th and early 20th centuries, young people left home to 6) _____ the American dream. The families they started were 7) _____ families. By 1960 the nuclear family dominated. Nearly 78 percent of children were living in one. Over the past half century, the 8) _____ of people living alone in America has doubled. People are 9) _____ later and 10) _____ more. The general fertility rate is dropping. And the stress from this change has fallen disproportionately on less affluent households who must perform all the work that was once done by members of an extended family. This burden isn't evenly distributed. Women still spend significantly more time on housework and childcare according to recent data.

Unit 2. FOOD, FOOD, FOOD!

Video 1. The History of Chocolate



Before you watch

A. Do you know the answers to these questions?

- When did chocolate get to Europe from Mesoamerica?
- Who was the first European to try chocolate drink?
- When did chocolate become a common delicacy for ordinary people?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 2 Video 1.1](#)

Mesoamerica (n)	the area extending approximately from central Mexico to Honduras and Nicaragua in which diverse pre-Columbian civilizations flourished
cornmeal (n)	meal made from ground, dried corn

concoction (n)	a mixture of various ingredients or elements
cacao bean (n)	a seed of the cacao tree
invigorating (adj)	making one feel strong, healthy, and full of energy
froth (n)	a mass of small bubbles in liquid caused by agitation, fermentation, etc.
ritual (n)	a ceremony consisting of a series of actions performed according to a prescribed order
encounter (v)	unexpectedly experience or be faced with
delicacy (n)	an expensive food
ailment (n)	an illness, typically a minor one
dedicated (adj)	exclusively intended for a particular purpose
ware (n)	articles made of ceramics or used for serving food
plantation (n)	an estate on which crops such as coffee, sugar, and tobacco are cultivated by resident labor
separate (v)	cause to move or be apart
drinkable (adj)	(of a liquid) fit to drink
chocolatier (n)	a maker or seller of chocolate
fashionable (adj)	representing a current popular trend or style
BCE	refers to the Common Era and is used in place of A.D.
unwrap (v)	remove the wrapping from (a package)
slave (n)	a person who is the legal property of another
treat (n)	an item that gives great pleasure
shift (v)	move or cause to move from one place to another
horrific (adj)	causing horror
originate (v)	have a specified beginning
colony (n)	a country under the full political control of another country

C. Match the synonyms and practice them in Quizlet.[Quizlet Unit 2 Video 1.2](#)

1. concoction (n)	a) transfer
2. froth (n)	b) growing
3. Mesoamerica (n)	c) BC
4. ailment (n)	d) pleasure
5. treat (n)	e) illness
6. shift (v)	f) atmosphere
7. cultivation (n)	g) prohibited
8. horrific (adj)	h) mixture
9. originate (v)	i) arise
10. aura (n)	j) terrifying
11. cruel (adj)	k) foam
12. forbidden (adj)	l) fierce
13. BCE	m) (loosely) Central America

While you watch



[The History of Chocolate](#)

D. Watch the video and decide if these statements are True or False.

1. At first, the bitter taste of chocolate made it suitable as a medicine for ailments.
2. By the 20th century, chocolate was still an elite luxury.
3. Cocoa beans can only grow near the equator.
4. In 1815, West Africa with Cote d'Ivoire provided two-fifths of the world's cocoa.
5. None of the plantations throughout West Africa, which supply Western companies, use child labor.
6. By the 20th century, chocolate had become a treat for the public.

E. Watch the video again and circle the words you hear.

1. The world of chocolate would change forever in 1828/1928 with the introduction of the cocoa press by Coenraad van Houten of Amsterdam.
2. As far back as 1900 BCE/AD, the people of Mesoamerica had learned to prepare the beans of the native cacao tree.
3. *Hernán Cortés*/ *Cortés's lieutenant* was the first European to try chocolate.
4. *A Swiss chocolatier named Daniel Peter*/ *Coenraad van Houten of Amsterdam* added powdered milk to the mix, thus inventing milk chocolate.

5. The big chocolate companies don't want partnerships with African countries that use *child/slave* labor practices.
6. Due to its *colonial association/ history of Mesoamerica* combined with the power of advertising, chocolate retains an aura of something sensual, decadent, and forbidden.

After you watch

F. Complete the summary of the video below using these words.

<i>Mesoamerica</i>	<i>drink</i>	<i>chocolate</i>	<i>rituals</i>	<i>tree</i>	<i>milk chocolate</i>
	<i>currency</i>	<i>delicacy</i>	<i>introduction</i>	<i>BCE</i>	

If you can't imagine life without 1) _____, you're lucky you weren't born before the 16th century. By the 20th century, chocolate was no longer an elite luxury but had become a treat for the public. Until then, chocolate only existed in 2) _____ in a form quite different from what we know. As far back as 1900 3) _____, the people of that region had learned to prepare the beans of the native cacao 4) _____.

The earliest records tell us the beans were ground and mixed with cornmeal and chili peppers to create a 5) _____ – not a relaxing cup of hot cocoa, but a bitter, invigorating concoction frothing with foam. The fashionable drink was difficult and time consuming to produce on a large scale.

Aztecs used cocoa beans as 6) _____ and drank chocolate at royal feasts, gave it to soldiers as a reward for success in battle, and used it in 7) _____. Hernán Cortés brought cacao beans to Europe. Sweetened with honey, sugar, or vanilla, chocolate became a popular 8) _____ in the Spanish court. And soon, no aristocratic home was complete without dedicated chocolate ware. Today, chocolate has established itself in the rituals of our modern culture.

The world of chocolate would change forever in 1828 with the 9) _____ of the cocoa press which could separate the cocoa's natural fat, or cocoa butter. This left a powder that could be mixed into a drinkable solution or recombined with the cocoa butter to create the solid chocolate we know today. Not long after, a Swiss chocolatier named Daniel Peter added powdered milk to the mix, thus inventing 10) _____.

By the 20th century, chocolate was no longer an elite luxury but had become a treat for the public. Today, chocolate has established itself in the rituals of our modern culture.

Video 2. How It's Made: Tea



Before you watch

A. Do you know the answers to these questions?

- What is the difference between black tea and green tea production?
- What tea is called oolong?
- How many steps does tea production have?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 2 Video 2.1](#)

beverage (n)	a drink, especially one other than water
consume (adj)	eat, drink, or ingest (food or drink)
Camellia sinensis	a type of small tree whose leaves are used to make tea
fermentation (n)	the chemical breakdown of a substance by bacteria, yeasts, or other microorganisms
solar withering (n)	wilting (leaves) in the sun

oolong (n)	semi-oxidized dark Chinese tea
amber (n)	hard fossilized resin, usually yellow in color
smooth (adj)	having an even and regular surface or consistency
species (n)	a set of animals or plants in which the members have similar characteristics to each other
handpick (v)	pick (fruit or vegetables) by hand
flush (n)	a grouping of two young lives and a bud, which grows out the top of the plant
process (v)	perform a series of actions to achieve a particular end
chlorophyll (n)	a green pigment, present in all green plants
evaporate (v)	turn from liquid into vapor
stir (v)	move the item to mix thoroughly
disruption (n)	an interruption in the usual way that a system, process, or event works
tumble (v)	fall suddenly, clumsily, or headlong
bruise (v)	crush or pound (food)
tear (v)	pull (something) apart or to pieces with force
sieve (n)	a utensil consisting of a wire or plastic mesh held in a frame, used for separating coarser from finer particles
accelerate (v)	begin to move more quickly, speed up
penetrate (v)	succeed in forcing a way into or through (a thing)
pellet (n)	a small, rounded, compressed mass of a substance
release (v)	allow (something) to move, act, or flow freely
fixation (n)	the action of making something firm or stable

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 2 Video 2.2](#)

1. release (n)	a) liquid
2. fixation (n)	b) drink
3. pellet (n)	c) extrication
4. filter out (v)	d) separate
5. beverage (n)	e) ball
6. accelerate (v)	f) step
7. evaporate (v)	g) vaporize
8. amber (adj)	h) decisive
9. process (v)	i) work on
10. phase (n)	j) speed up
11. moisture (n)	k) oxidate
12. critical (adj)	l) honey-yellow
13. oxidize (v)	m) fixing

While you watch



[How It's Made: Tea](#)

D. Watch the video and decide if these statements are True or False.

1. After water, tea is the most consumed drink in the world.
2. By fermentation, oolong falls somewhere in between green and black tea.
3. Oolong is fermented more than black tea, yet less than green tea.
4. Taste of oolong varies according to how the tea leaves are picked.
5. From May to November the tea plant produces a new flush every three days.
6. Tea production is a long and complicated process.

E. Watch the video again and circle the words you hear.

1. The most consumed beverage in the world is *tea/water*.
2. In *Chinese/ Thai* oolong means “black dragon”.
3. *Harvest/Planting* time is during the plant's peak growing season, which in Thailand is from May to November.
4. The traditional way to brew oolong is in a clay teapot, using about 2/3 teaspoons of tea per cup.
5. The moisture content in the final product must be *less/more* than 5%.
6. When brewing oolong, the water temperature should be 190 – 210 degrees *Fahrenheit/Celsius*.

After you watch

F. Complete the summary of the video below using these words.

<i>Camellia sinensis</i>	<i>summer</i>	<i>flavor</i>	<i>range</i>	<i>harvested</i>
<i>quality</i>	<i>raw material</i>	<i>soon</i>	<i>reactions</i>	<i>ten</i>

Oolong Tea traditionally comes from southern China and Taiwan, and like most teas, is made from leaves of the 1) _____ plant. Like other teas, the unique 2) _____ of Oolong Teas come from the way they are processed. The oxidation level of Oolong Teas varies from 8-85%, which is between Green Tea (0% oxidation) and Black Tea (100% oxidation). This degree of oxidation, and the many ways of processing it, give Oolong Tea its broad spectrum of flavor and character. Flavors 3) _____ from floral and green to sweet and fruity, and on to woody and smoky. In Taiwan alone, there are over 4) _____ different types of Oolong Teas.

Tea leaves for Oolong Tea production in Taiwan are typically 5) ----- three to four times a year. Spring and 6) _____ harvest is usually the best in terms of quantity as well as 7) _____. The top three to four leaves of new growth (within 60 days) from a tea plant provide the ideal 8) _____ for making Oolong Tea.

Once tea leaves are harvested, transformations on the cellular level that affect the taste of tea begin, so tea makers must start processing the tea as 9) _____ as possible, and continually tend to the leaves until the final product is made. After tea leaves are harvested, enzymes inside the leaves immediately start chemical 10) _____ that create the flavor and aroma profile of the final tea.

Depending on the type of tea being made, the tea leaves are then roasted. Tea roasters take into account everything from the environment in which the leaves were grown, to the time of harvest, the condition of the harvested leaves, how they were processed, and finally, how they are responding to the roasting process to bring them to their optimal potential.

The traditional way to brew oolong is in a clay teapot, using about 2 teaspoons of tea per cup. Ideally, the water should be 190 to 210 degrees Fahrenheit. Steeping time is from 3 to 10 minutes, and you can brew the same leaves up to five times.

Unit 3. WONDERS OF NATURE

Video 1. Nazca Lines: Peru's Mysterious Geoglyphs



Before you watch

A. Do you know the answers to these questions?

- What is the mystery behind the Nazca Lines?
- What is geoglyph?
- How many Nazca Lines are there in Peru?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 3 Video 1.1](#)

geoglyph (n)	a large picture on the ground made by durable elements such as stones, stone fragments, gravel or earth
culture (n)	social behavior, institutions and norms found in human societies
plain (n)	a large area of land without trees that generally does not change much
meetings (n)	when two or more people come together to discuss one or more topics
drawing (n)	a picture made with a pencil, pen or crayon rather than paint
road (n)	way for cars and pedestrians. Unlike streets, the main function of roads is transportation
researcher (n)	a person who conducts scientific research to advance knowledge in an area of interest
god (n)	a supernatural being who is considered divine or sacred
pilgrim (n)	a traveler who is on a journey to a holy place
line (n)	long, narrow mark or band
Peruvian (adj)	something that refers to Peru (country)
massive (adj)	an adjective related to mass
ancient (adj)	very old
giant (adj)	very big
advanced (adj)	modern and recently developed
annual (adj)	occurring once every year
ritual (adj)	relating to or done as a religious or solemn rite
intersecting (adj)	something like lines that can cross or meet
straight (adj)	moving in one direction only without a curve or bend
create (v)	to build or produce something

flourish (v)	to grow or develop in a healthy way
remove (v)	to take something away or off from the position occupied
increase (v)	to make bigger in size, amount or degree
debate (v)	to argue about (a subject) in a formal manner
smash (v)	to break or crack something into pieces

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 3 Video 1.2](#)

1. plain (n)	a) huge
2. massive (adj)	b) beast
3. approximately (adv)	c) valley
4. animal (n)	d) picture
5. plant (n)	e) false
6. depiction (n)	f) about
7. nickname (n)	g) suggest
8. pseudo (adj)	h) flora
9. postulate (v)	i) dry
10. advanced (adj)	j) pseudonym
11. alien (adj)	k) aim
12. arid (adj)	l) modern
13. purpose (n)	m) strange

While you watch



Nazca Lines: Peru's Mysterious Geoglyphs

D. Watch the video and decide if these statements are True or False.

1. The Nazca lines are located in the Peruvian coastal plain some 250 miles south of Lima.
2. The Nazca lines are a massive collection of geoglyphs created by the modern Nazca people of Central America
3. There are more than 80 straight lines on the coastal plain with 17 animal and plant depictions
4. In the 1960s and 70s it was believed that the giant rock drawings were the result of an advanced alien culture who paid a visit to the Nazca people.
5. The Rio Grande del Nasco river basin is one of the driest places on earth
6. Researchers have long debated the purpose for these massive geoglyphs including an homage to the gods above in hopes of sending rain to such an arid bone-dry region.
7. In 2018 Peruvian archaeologists announced the discovery of 50 more geoglyphs previously unrecorded and unknown.
8. The ancient Nazca people used drone technology to map the landmarks in greater detail.

E. Watch the video again and circle the words you hear.

1. The Nazca lines are a massive collection of geoglyphs created by the ancient Nazca people of South America approximately 1300 to 2000/ 130 to 2000/30 to 200 years ago taken as a whole.
2. In 2018 Peruvian archaeologists announced the discovery of 500/50/15/5 more geoglyphs previously unrecorded and unknown.

3. There are more than 800 straight lines on the coastal plain, some as long as 30 miles including geometric *figures/flower* depictions.
4. The Nazca lines cover an area of 7 500/750 hectares all created by a culture that flourished a long time ago.
5. The Nazca people created their massive geoglyphs by removing the top *foot/root* of rock
6. Researchers argued that the purpose of the Nazca lines *morphed/mourned* over time.
7. After they used *drone/phone* technology to map the landmarks in greater detail making the Nazca lines one of the ongoing mysteries of ancient man.

After you watch

F. Complete the summary of the video below using these words.

<i>ancient</i>	<i>Peruvian</i>	<i>straight</i>	<i>collection</i>	<i>driest</i>	<i>depictions</i>
<i>technology</i>	<i>human-like</i>	<i>geoglyphs</i>	<i>ritual</i>	<i>purpose</i>	<i>gods</i>

The Nazca lines are located in the 1) _____ coastal plain some 250 miles south of Lima. The Nazca lines are a massive 2) _____ of geoglyphs created by the 3) _____ people of South America. There are more than eight hundred 4) _____ lines some as long as 30 miles including rectangles, trapezoids, zigzags and spirals along with 70 animal and plant 5) _____. Others appear 6) _____ including one that has been nicknamed the Astronaut. Located in the desert plains of the Rio Grande del Nasco river basin – one of the 7) _____ places on earth the Nazca lines cover an area of 7 500 hectares all created by a culture that flourished from 100 BC to 700 a.d. It's thought that the Nazca people created their massive 8) _____ by beginning with the small-scale pre-construction model before increasing the size and scope into what can be seen today. Researchers have long debated the 9) _____ for these massive geoglyphs including an homage to the 10) _____ above in hopes of sending rain to such an arid bone-dry region. Initially researchers argued pilgrims heading to Peruvian temple complexes used the geoglyphs as a 11) _____ processional root. In 2018 Peruvian archaeologists announced the discovery of 50 more geoglyphs previously unrecorded and unknown. After they used drone 12) _____ to map the landmarks in greater detail making the Nazca lines one of the ongoing mysteries of ancient man.

Video 2. Seven Wonders of Nature



Before you watch

A. Do you know the answers to these questions?

- What are the greatest wonders of nature?
- Where are the greatest natural wonders located?
- Why are people so attracted to them?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 3 Video 2.1](#)

dive in (v)	to go deep into what is important or necessary
rainforest (n)	dense forest rich in flora and fauna species, found in tropical areas
contender (n)	a person who competes with others to get something
biodiversity (n)	a variety of life in a particular habitat or ecosystem
animal species (n)	different kinds of animals

environment (n)	the natural world
piranhas (n)	a kind of very dangerous fish
mammal (n)	an animal that nourishes its babies with milk
victim (n)	a person harmed, injured or killed as a result of a crime or accident
deforestation (n)	the action of cutting down a wide area of trees
bay (n)	a wide inlet of a sea
limestone (n)	a hard rock, composed of calcium carbonate or dolomite, used in the making of cement
jade walls (n)	walls made of green stone
waterfalls (n)	a cascade of water falling from a height
pollution (n)	introduction into the environment of a substance that has harmful effects
inhabitants (n)	people living in a certain place
fire breathing (adj)	something or someone that can breathe with a fire
predator (n)	an animal that naturally preys or hunts on others
prey (n)	an animal that is killed by another for food
cableway (n)	a transportation system with a continuous moving cable or rope to carry goods
vegetation (n)	plants found in a particular area or habitat
debatably (adv)	the way that many people argue about an issue
incredibly (adv)	to a great degree; extremely or unusually
deadly (adv)	very dangerous; able to cause to death
hollow (adj)	having a hole or empty space inside

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 3 Video 2.2](#)

1. man-made (adj)	a) best-loved
2. worldwide (adj)	b) tropical forest
3. favorite (adj)	c) artificial
4. rainforest (n)	d) injured party
5. victim (n)	e) global
6. forest (n)	f) empty
7. hollow (adj)	g) grotto
8. vehicles (n)	h) special
9. cave (n)	i) wood
10. unique (adj)	j) major
11. habitat (n)	k) huge
12. substantial (adj)	l) transport
13. massive (adj)	m) natural environment

While you watch



Seven Wonders of Nature

D. Watch the video and decide if these statements are True or False.

1. The Amazon is the largest river in the world, which counts both the River itself and the Rainforest.
2. The Nile River is longer than its contender the Amazon.
3. The rainforest that follows this river is known for its biodiversity, with one in ten animal species living in the rainforest.
4. This is also an incredibly deadly environment, including piranhas, anacondas, poison dart frogs, electric eels, and large mammals such as jaguars.
5. This land has been a victim of deforestation, with nearly 70% of the forest destroyed by 2018.
6. Halong Bay is home to over 1,600 islands, created by rising limestone from the water.
7. All islands are large and occupied, with hotels and homes and tourism attractions.
8. Jeju Island in South Korea is the highest mountain in South Korea, which is also an active volcano.
9. Almost 70,000 people live on Jeju Island in South Korea.
10. Igazu Falls are a series of waterfalls. It is the largest waterfall system in the world, which flows through Brazil and falls into Argentina.
11. The Puerto Princesa Subterranean River in the Philippines is a river which

- includes a variety of underground caves and river channels.
12. Komodo Island is the place with the only inhabitant – the Komodo dragon.
 13. Massive size of the Komodo dragon is attributed to there being no other predators on these islands.
 14. Table Mountain in South Africa, a massive table-like mountain that overlooks Cape Town.

E. Watch the video again and circle the words you hear.

1. The rainforest that follows the Amazon is known for its biodiversity, with *in* *10/1* in 5 animal species living in the rainforest.
2. This land has been a victim of deforestation, with nearly *17/70/700%* of the forest destroyed by 2018.
3. While there's *16/160/1,600* islands in Halong Bay, Vietnam, only about *40/14* have people living on them.
4. The volcano erupted about 2 millions years ago, creating the island as we know it, now *flush/flash* with forests.
5. Almost *700,000/70,000/700/70/7* people live on Jeju Island, with a native language that is also distinct from the rest of South Korea.
6. The economy on this island is focused heavily on tourism, so it's also a *negative/positive/neutral* factor for the locals that attempt to run their own businesses.
7. The Puerto Princesa Subterranean River enters a mountain *range/top/bottom* and includes a variety of underground caves and river channels.
8. This river is incredibly difficult to *explore/discover*, so some areas are completely uncharted.
9. Komodo Island in Indonesia is the primary *habitat/ inhabitant* of the Komodo dragon.
10. Table Mountain in South Africa, a massive *table-like/table-liked* mountain that overlooks Cape Town.

After you watch

F. Complete the summary of the video below using these words.

<i>biodiversity</i>	<i>habitat</i>	<i>river</i>	<i>grottos</i>	<i>hollow</i>	<i>longest</i>	<i>volcano</i>
<i>deforestation</i>	<i>environment</i>	<i>waterfall</i>	<i>system</i>	<i>underground</i>		
	<i>cableway</i>	<i>unique</i>	<i>ago</i>			

We begin with what's debatably the largest 1) _____ in the world, the Amazon. The river runs almost the entire width of South America. It's debatably 2) _____ because the true start and end points of the river are debated. The rainforest that follows this river is known for its 3) _____. This is also an incredibly deadly 4) _____, including piranhas, anacondas and large mammals such as jaguars. This land has been a victim of 5) _____, with nearly 17% of the forest destroyed by 2018.

Halong Bay, Vietnam, is home to over 1,600 islands, created by rising limestone from the water. Some islands are large and occupied. Other islands are small, and some are even 6) _____, with intricate caves and 7) _____.

Next up is Jeju Island in South Korea, housing the highest mountain in South Korea, an active 8) _____. It erupted about 2 millions years 9) _____, creating the island as we know it, now flush with forests.

We now head to South America, to the border of Brazil and Argentina, Igauzu Falls. This series of waterfalls is the largest 10) _____ in the world, flowing through Brazil but falling into Argentina.

Now to the Philippines, to the Puerto Princesa Subterranean River, a river which enters a mountain range and includes a variety of underground caves and river channels. It's incredibly difficult to explore, so some areas are completely uncharted. The 11) _____ section is about 5 miles long and holds some of the largest cave rooms in the world. There's also a wide variety of animal life in and around this river, including many bats, pigs, and my favorite animal in the world, the Binturong.

Speaking of animals, let's head to our next site, Komodo Island in Indonesia. This is the primary 12) _____ of the Komodo dragon. Originally, tales of these dragons included fire breathing and many monster-like qualities, but Dutch explorers decided they were large lizards. They were almost immediately declared a protected species, given their 13) _____ and limited habitat. Their massive size is attributed to there being no other predators on these islands, only prey for them to feed on.

Our last natural wonder is Table Mountain in South Africa, a massive table-like mountain that overlooks Cape Town. It's popular to either hike to the top or to use a 14) _____ that can take them to the top. At the top of this range, there is substantial life, including massive vegetation and a variety of wildlife, making this location feel like a whole new world. And that's it for our natural wonders.

Unit 4. SPECIAL RELATIONS

Video 1. A Brief History of Dogs



Before you watch

A. Do you know the answers to these questions?

- Are dogs really "a man's best friend"? Why do you think so?
- In what ways are dogs helpful to humans?
- What kinds of dogs do you like and dislike?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 4 Video 1.1](#)

descendant (n)	a person, plant, or animal that is descended from a particular ancestor
transformation (n)	a thorough or dramatic change in form or appearance

proximity (n)	nearness in space, time, or relationship
DNA (n)	the carrier of genetic information
loyal (adj)	showing firm and constant support to a person or institution
breed (n)	biology: a group of usually domesticated animals related by descent from common ancestors and visibly similar in most characters
select (v)	carefully choose as being the best or most suitable
breeding (n)	the mating and production of offspring by animals
wealthy (adj)	having a great deal of money, resources, or assets; rich
utility (n)	the state of being useful, profitable, or beneficial
domestication (n)	the process of taming an animal and keeping it as a pet or on a farm
trait (n)	a distinguishing quality or characteristic
appearance (n)	the way that someone or something looks
suffer (v)	experience or be subjected to (something bad or unpleasant)
disorder (v)	disrupt the systematic functioning or neat arrangement of
craze (n)	enthusiasm for a particular activity which appears suddenly and achieves widespread but short-lived popularity
diverse (adj)	showing a great deal of variety; very different
underway (adj)	having started and in progress; being done or carried out
pronounced (adj)	very noticeable or marked; conspicuous
therapy (n)	treatment intended to relieve or heal a disorder
canine (n)	relating to or resembling a dog or dogs
pack (n)	a group of wild animals, especially wolves, living and hunting together
furry (adj)	covered with fur
breathing (n)	the process of taking air into and expelling it from the lungs
veterinary (n)	the science of prevention and cure of disease in animals, especially domestic ones

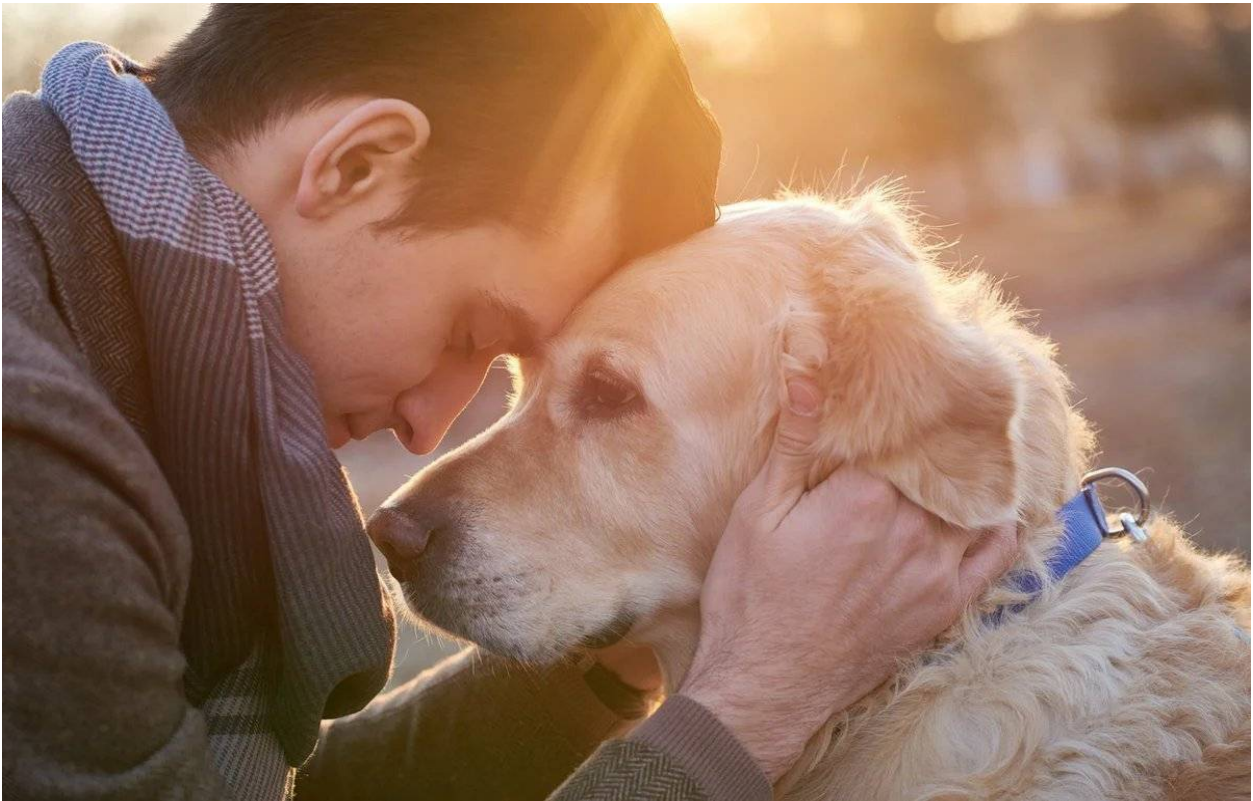
C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 4 Video 1.2](#)

1. loyal (adj)	a) rich
2. transformation (n)	b) nearness
3. descendant (n)	c) in action
4. breeding (n)	d) offspring
5. wealthy (adj)	e) converting
6. diverse (adj)	f) reproduction
7. proximity (n)	g) be in pain
8. select (v)	h) varied
9. trait (n)	i) feature
10. suffer (v)	j) usefulness
11. utility (n)	k) devoted
12. craze (n)	l) choose
13. underway (adv)	m) mania

While you watch



[A Brief History of Dogs | National Geographic](#)

D. Watch the video and decide if these statements are True or False.

1. Now dogs are our fierce companions.
2. By about fifteen thousand years ago dogs were found virtually everywhere people were.
3. In ancient China dogs were bred for specific uses such as hunting, guarding and war.
4. Selective breeding eventually gave rise to many different looking dogs.
5. Breeding offspring sometimes suffer from genetic disorders.
6. Domesticated canines still live in packs.

E. Watch the video again and circle the words you hear.

1. DNA of dogs and wolves is virtually *identical/different*.
2. Over many generations, they became tamer and lost some of their *domestic/predatory* qualities such as big sharp teeth.
3. The dog is the *very first/second* domesticated animal.
4. The ancient *Egyptians/Chinese* may have been the first to breed dogs for specific uses.
5. And the *18th/19th* century purebred dogs were becoming more of a status symbol among wealthy households.
6. Today we have over *300/3000* different breeds of dogs.

After you watch

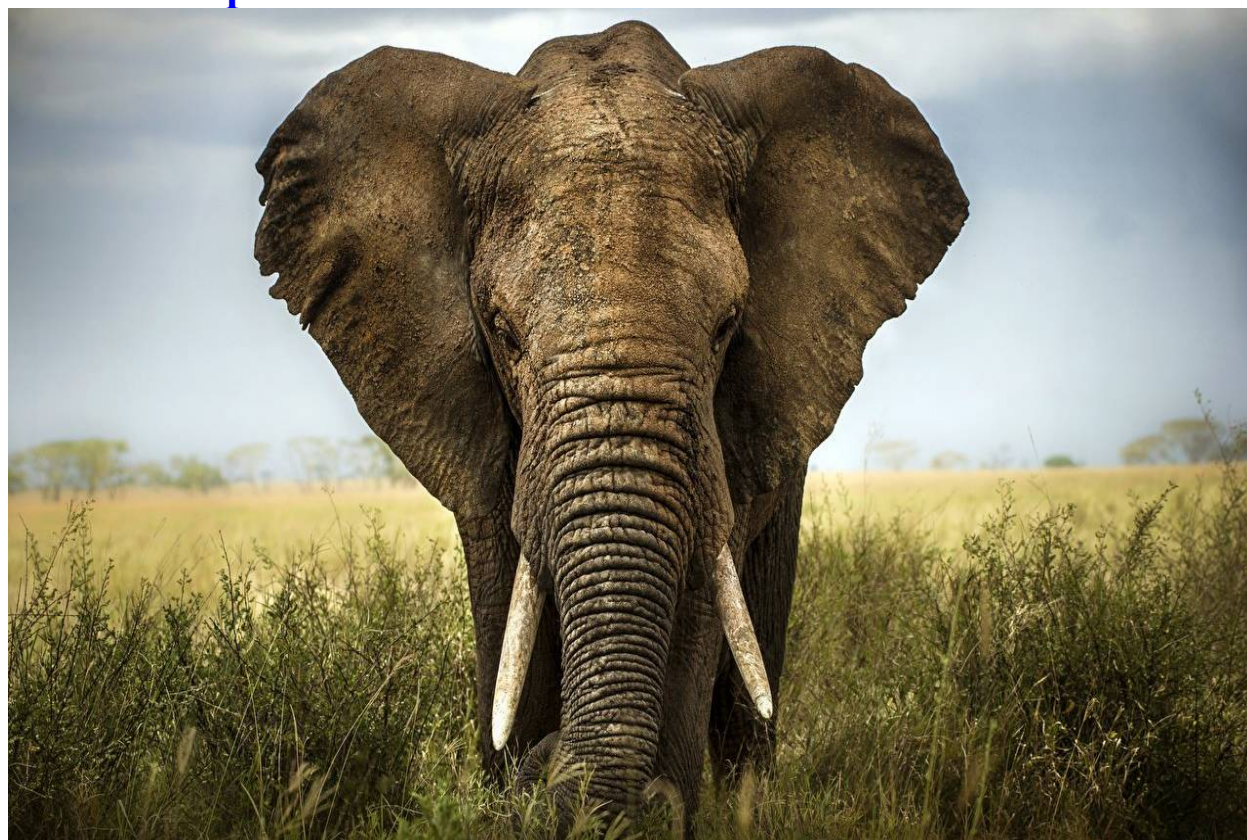
F. Complete the summary of the video below using these words.

<i>descendants</i>	<i>transformation</i>	<i>DNA</i>	<i>breeding</i>	<i>fierce</i>	<i>loyal</i>
<i>ancient</i>	<i>wealthy</i>	<i>proximity</i>		<i>selective</i>	

Long before we raised livestock and grew crops, humans lived side by side with dogs. It's widely accepted among scientists that dogs are 1) _____ of wolves. In fact, their 2) _____ is virtually identical. But how exactly did a 3) _____ wild animal become our 4) _____ companion? According to DNA analysis, the 5) _____ from wolf to dog began some twenty to forty thousand years ago when people and wolves were living and hunting in close 6) _____. By about fifteen thousand years ago dogs were found virtually everywhere people were.

Thousands of years later humans began to play a more active role in the 7) ----- of dogs. The 8) _____ Egyptians may have been the first to breed dogs for specific uses such as hunting, guarding and war. 9) _____ breeding eventually gave rise to many different looking dogs or pure breeds. And the 18th century purebred dogs were becoming more of a status symbol among 10) _____ households. Humans were mixing and matching dogs no longer just for their utility but also for their appearance. Today we have over 300 different breeds making dogs the most diverse species on earth.

Video 2. Elephants



Before you watch

A. Do you know the answers to these questions?

- What is the largest living land animal?

- How much did the largest elephant in recorded history weigh?
- What do you know about the intellect of elephants?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 4 Video 2.1](#)

intelligence (n)	the ability to acquire and apply knowledge and skills
endangered (adj)	(of a species) seriously at risk of extinction
mammal (n)	any animal of which the female feeds her young on milk from her own body
foot (n)	a unit of measurement equal to $\frac{1}{3}$ yard
enormous (adj)	very large in size, quantity, or extent
superb (adj)	of excellent quality; very great
recognize (v)	identify (someone or something) from having encountered them before
powerful (adj)	having great power or strength
migrate (v)	move from one region or habitat to another
tool (n)	a device used to carry out a particular function
memory (n)	the ability to remember information
trunk (n)	the long, tube-shaped nose of an elephant
precise (adj)	marked by exactness and accuracy of expression or detail
reassure (v)	say or do something to remove the doubts or fears
tusk (n)	a long protruding tooth
contain (v)	have or hold (someone or something) within
intertwine (v)	twist or twine together
permanent (adj)	lasting or intended to last or remain unchanged indefinitely
decline (v)	become smaller, fewer, or less
vulnerable (adj)	susceptible to physical or emotional attack or harm
luster (n)	a soft glow, especially that of a partly reflective surface
grasp (v)	seize and hold firmly

illegally (adv)	in a way that is contrary to or forbidden by law
isolated (adj)	far away from other places, buildings, or people
overpopulation (n)	the condition of being populated with excessively large numbers

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 4 Video 2.2](#)

1. reassure (v)	a) identify
2. enormous (adj)	b) excellent
3. intelligence (n)	c) huge
4. recognize (v)	d) intellect
5. superb (adj)	e) instrument
6. precise (adj)	f) exact
7. tool (n)	g) remote
8. decline (v)	h) gloss
9. powerful (adj)	i) calm down
10. contain (v)	j) decrease
11. luster (n)	k) complex
12. isolated (adj)	l) hold
13. complicated (adj)	m) strong

While you watch



[Elephants 101 | Nat Geo Wild](#)

D. Watch the video and decide if these statements are True or False.

1. Elephants are the largest animals on the Earth.
2. Elephants don't have any spring in their legs since they stand on their toes.
3. Elephants are able to recognize themselves in a mirror.
4. Elephants can remember locations of water sources along their migration routes.
5. Elephant tusks are made of a material called dentine.
6. Asian elephants are not endangered but their African cousins are.

E. Watch the video again and circle the words you hear.

1. To sustain this massive size, an adult elephant has to consume 70,000/7,000 calories every day.
2. While they can walk, elephants are one of the few mammals that can't swim/jump.
3. Elephants are *intelligent/cruel* creatures.
4. The only other animals capable of recognizing themselves in a mirror are humans, great apes, *dolphins/whales*, and Magpies.
5. Trunks are a combination of a nose and a *tongue/upper lip* and are heavy and powerful.
6. Trunks contain about 150,000/15,000 muscle units and can weigh nearly 300 pounds.

After you watch

F. Complete the summary of the video below using these words.

<i>land</i>	<i>problem-solve</i>	<i>illegally</i>	<i>intelligence</i>	<i>intellect</i>
<i>pounds</i>	<i>decline</i>	<i>intelligent</i>	<i>migration</i>	<i>weigh</i>

Elephants are the largest living 1) _____ animal. On average, African elephants are about ten feet tall at the shoulder and 2) _____ up to 18,000 pounds. The largest elephant in recorded history however was 13 feet tall and weighed about 24,000 3) _____.

Elephants are 4) _____ creatures. One sign of their 5) _____ is their ability to recognize themselves in a mirror. The only other animals capable of doing this are humans, great apes, dolphins, and Magpies. Intelligence is also found in elephant's ability to 6) _____ with tools but probably the most well-known form of elephant 7) _____ is their superb memory. As they migrate from place to place throughout their lives, elephants can remember locations of water sources along their 8) _____ routes.

Elephants are the only living animals with long trunks. Trunks which are a combination of a nose and upper lip can be heavy and powerful. They contain about 150,000 muscle units and can weigh nearly 300 pounds!

Unfortunately, elephants have been 9) _____ hunted for their tusks. African elephants are not endangered but their Asian cousins are. African elephants are listed as vulnerable. Demand for ivory products which are made from tusks has caused elephant populations to 10) _____. Habitat fragmentation, poaching for ivory, and conflict with local farmers are all factors that put elephant populations at risk.

But by studying the complicated nature of conservation, we can come closer to finding a way that both people and elephants with their exceptional intelligence and larger than life presence can peacefully coexist.

Unit 5. A PLACE TO CALL HOME

Video 1. The History of Balmoral Castle



Before you watch

A. Do you know the answers to these questions?

- When was Balmoral Castle constructed?
- How much did Prince Albert pay for the property?
- What do you hear about Balmoral Castle?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 5 Video 1.1](#)

estate (n)	a large area of land in the country that is owned by family and is often used for growing crops or raising animals
a property (n)	an object or objects that belong to someone
encounter (n)	a meeting, especially one that happens by chance

accommodate (v)	provide with a place to live or to be stored in
assume (v)	accept something to be true without question or proof
notable (adj)	important and deserving attention, because of being very good or interesting
untimely (adj)	not expected or planned
suspicion (n)	a belief or idea that something may be true
valley (n)	an area of low land between hills or mountains, often with a river running through it
complete (v)	to finish doing something
herd (n)	a large group of animals of the same type that live and feed together
creature (n)	any large or small living thing that can move independently
endangered (adj)	animals or plants that may soon not exist because there are very few now alive
decline (v)	gradually become less, worse, or lower
survival (adj)	continuing to exist or wanting to continue to exist
reverse (adj)	in the opposite order or way
initiation (n)	an occasion when something starts
navigate (v)	deal effectively with a difficult situation
engage (v)	become involved, or have contact, with someone or something
reveal (v)	make known or show something that is surprising or that was previously secret
inheritance (n)	money or objects that someone gives you when they die
touching (adj)	making you feel sadness, sympathy
crucial (adj)	extremely important or necessary
statue (n)	a carved or cast figure of a person
garden (n)	a small piece of ground used to grow vegetables, fruit, herbs, or flowers

C. Match the synonyms and practice them in Quizlet.**[Quizlet Unit 5 Video 1.2](#)**

1. complete (v)	a) unluckily
2. breathe (v)	b) finish
3. available (adj)	c) being
4. schedule (n)	d) heartwarming
5. decline (v)	e) take air
6. spot (n)	f) possession
7. unfortunately (adv)	g) decrease
8. character (n)	h) pivotal
9. reveal (adj)	i) individuality
10. creature (n)	j) accessible
11. property (n)	k) place
12. crucial (adj)	l) disclose
13. touching (adj)	m) plan

While you watch



[The History of Balmoral Castle](#)

D. Watch the video and decide if these statements are True or False.

1. Queen Victoria added several cottages to the property.
2. Prior to this time the Queen spent her winter in the Balmoral Castles.
3. Balmoral Castle is located in England.
4. Prince Albert assumed ownership of the Balmoral Castle in autumn of 1872.
5. William Kate and their children visited the estate in 2019 and stayed in Tam Nagar, a three-bedroom house.

E. Watch the video again and circle the words you hear.

1. Princess Eugenie revealed that she thinks her grandmother Queen Elizabeth is *happier/luckier* when she's at Balmoral Castle.
2. Balmoral Castle is one of few places where Queen Elizabeth could be seen riding horses or *driving a Range Rover/speaking with her husband*.
3. Over the years more structures were added to the Balmoral Castle before the death of *Prince Albert/King George VI*.
4. The new monarch king Charles and his first wife Princess Diana had their *honeymoon/wedding* at Burkhart lodge in Balmoral Castle.
5. Presently there are 150 buildings in *50 000/100000* acre estate.
6. *Prince Philip/ Duke of Edinburgh* made some improvements to the garden by adding a water garden.

After you watch**F. Complete the summary of the video below using these words.**

<i>untimely</i>	<i>encounter</i>	<i>property</i>	<i>to accommodate</i>	<i>assumed</i>
<i>acquired</i>	<i>revenues</i>	<i>suspensions</i>	<i>notable</i>	<i>appointing</i>

There are 150 buildings in the 50 000 acre estate, but going back in history, the royal castle did not start out like that as at 1390. There was already a structure on the land, but it was not yet 1) _____ of the Royal Family the first 2) _____. This property belonged to any member of the Royal Family, since Queen Victoria visited Scotland with her husband Prince Albert in 1842. Queen Victoria immediately fell in love with the Highlands. Later in 1852 Prince Albert bought the property for the Queen as a gift from Farquharson family 3) _____ the large family. The magnificent residence was constructed on the land in 1856 and the old building was destroyed. One of the regular autumn visits of Queen Victoria she showed her support for the construction by laying the foundation stone on the 28 th of September, 1853. Prince Albert 4) _____ ownership of Balmoral Castle in autumn of 1852. The Prince paid 32000 pounds in total for the property at this time. There were other estates close to Balmoral Castle such as Burke Hill Estate and Abergeldie Castle. These estates were also bought and a purchased cairn was built in the hills close to the estate. The main rooms were southwestern side while the service wings were on the north eastern side of the building. Since the property was initially 5) _____ by Prince Albert.

Balmoral Castle belongs to the monarch and not to the Crown Estate. This means that the 6) _____ generated by the estate is not credited to the Parliament or the public account notable activities. Several 7) _____ events have taken place in this famous castle. The granddaughter of Queen Victoria, Eugenie, was born in 1887 at Balmoral Castle. The new monarch King Charles and his first wife Princess Diana had their honeymoon at Burkhardt lodge in Balmoral Castle. The children of Princess Diana, Prince Harry and Prince William, got to know 8) _____ death of their mother in the same place in 1997. More recently in 2022 Queen Elizabeth appointed the new Prime Minister Liz Truss at Balmoral Castle. This raised a lot of 9) _____ about the health of the Queen because an event of such magnitude normally takes place at Buckingham palace in London. Two days after 10) _____ Liz Truss as Prime Minister Queen Elizabeth II died at the age of 96.

Video 2. The Remote Visa – Free Island at the Top of the World



Before you watch

A. Do you know the answers to these questions?

- Do you know where people can live? Why?
- How are people living in a very cold climate?
- Do you want to live in a severe climate?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 5 Video 2.1](#)

edge (n)	the outer or furthest point of something
rule (v)	control influence on someone, something
squeeze (v)	press something firmly in order to change its shape, reduce its size
swabber (n)	person who does cleaning

god (n)	who strongly influences you
spar (n)	a thick, strong pole such as is used for a mast or yard on a ship
maternity (adj)	relating to a period during which a woman is pregnant
ward (n)	one of the parts or large rooms into which a hospital is divided, usually with beds for patients
ship (v)	transport something or someone by air, train, boat, or truck
fit (v)	be the right size or shape for someone or something
reindeer (n)	a type of deer with large horns
inner (adj)	situated inside or further in; internal
instinct (n)	a natural ability that helps you decide what to do or how to act without thinking
flourish (v)	grow or develop in a healthy or vigorous way
awake (v)	not asleep
aware (adj)	having knowledge or perception of a situation or fact
mounting (n)	a backing, setting, or support for something
settlement (n)	a place where people come to live
random (adj)	happening, done, or chosen by chance
shame (n)	an uncomfortable feeling of guilt or of being ashamed
pure (adj)	clean and free from harmful substances
slobber (v)	allow saliva or food to run out of the mouth
bury (v)	to put a dead body into the ground
immediately (adj)	at once; instantly
damage (v)	cause physical harm to something

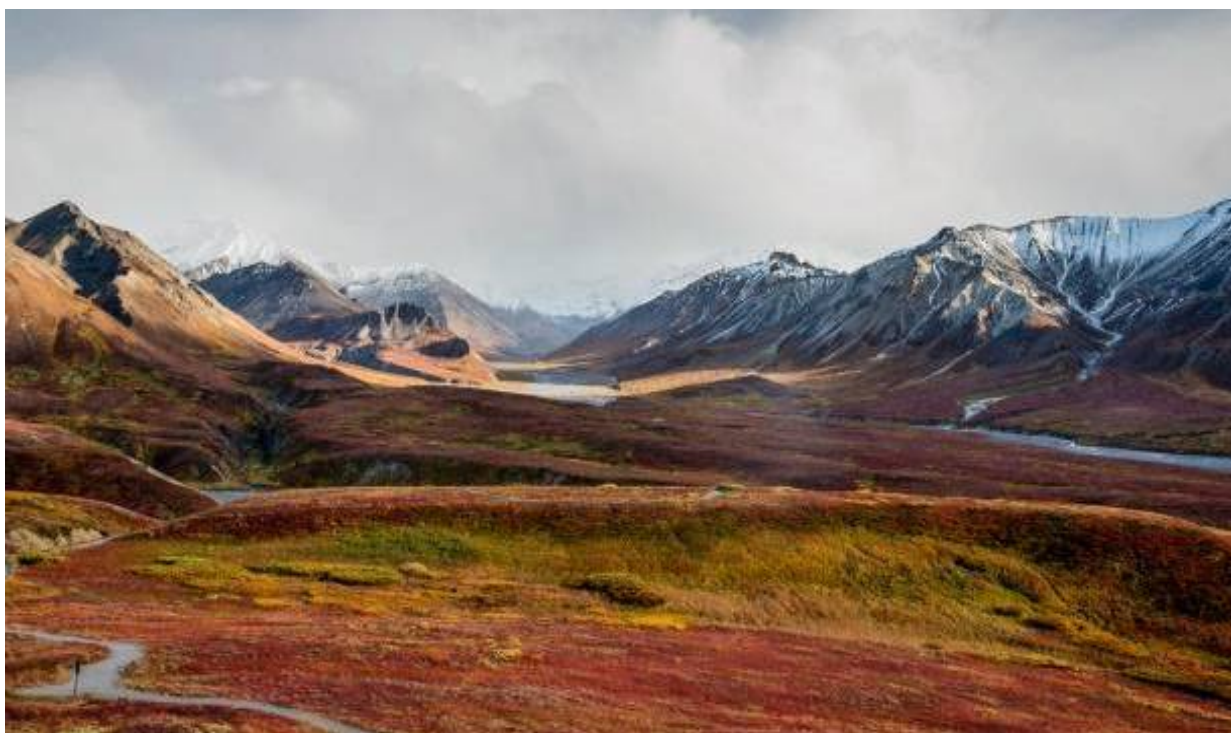
C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 5 Video 2.2](#)

1. squeeze (v)	a) intuition
2. awake (adj)	b) cleaner
3. flourish (v)	c) chamber
4. instinct (n)	d) press
5. inner (adj)	e) inside
6. ward (n)	f) blossom
7. swabber (n)	g) sleepless
8. edge (n)	h) conscious
9. aware (adj)	i) end
10. mounting (n)	j) drool
11. settlement (n)	k) chance
12. slobber (v)	l) montage
13. random (adj)	m) inhabitation

While you watch



The Remote Visa – Free Island at the Top of the World

D. Watch the video and decide if these statements are True or False.

1. We're literally at the edge of the world and everyone here is a guest.
2. Places outside are ruled by men, here are ruled by animals.
3. I'm the director of the northernmost sporting store in the world.
4. We don't have a maternity ward and even if you are unlucky enough to die here, you're going to be shipped off.
5. I mean this place belongs to the bears, the sharks, elephants, reindeers, and lions.
6. Also the inner tent got damaged so I will try to fix these ones here but I've got many tents that they're too damaged.
7. Your human instinct flourishes in Svalbard

E. Watch the video again and circle the words you hear.

1. We're literally at the edge of the *world/mountain* and everyone here is a guest.
2. I come from south of *Brazil/Spain* and I'll be working as a *photographer, videographer/mechanic*.
3. We had a friend who was living in *Svalbard/Sitka* and working here.
4. I think after *six/ten* months I realized that I was in love with the place.
5. We don't have a *maternity ward/department store* and even if you are unlucky enough to die here, you're going to be shipped off.
6. This place belongs to the *bears/people*.

7. Your human instinct *flourishes/fades* in Svalbard.
8. We have *four/six* months of darkness.
9. When I post a video or photo on Facebook/*Instagram* and most of my friends see it they're quite surprised.

After you watch

F. Complete the summary of the video below using these words.

<i>flourish</i>	<i>edge</i>	<i>maternity ward</i>	<i>flourish</i>	<i>realized</i>
<i>shipped</i>	<i>scared</i>	<i>reindeer</i>	<i>inner</i>	<i>ruled</i>

We're literally at the 1) _____ of the world and everyone here is a 2) _____. Places outside are ruled by men, here is 3) _____ by nature. I'll be here for eight years in Svalbard. I come from the south of Brazil and I'll be working as a photographer, videographer. I think after six months I 4) _____ that I was in love with the place. The first six months I was too 5) _____. I'm the manager of the northernmost sporting store in the world. You're not meant to be born here that's for sure. We don't have a 6) _____ and even if you are unlucky enough to die here, you're going to be 7) _____ off. This place belongs to the bears, the 8) _____, the seals and the whales. This is a tent that a polar bear came in. As you can see here there are many holes. Also the 9) _____ tent got damaged so I will try to fix these ones here but I've gotten many tents that they're too damaged. Your human instinct 10) _____ in Svalbard.

It is enough for me to say I've seen the effects of climate change here. It's not, it's not just a random weather pattern for a couple of years in this place as I know. I'm not sure if I've got to show my grandchildren and that's a shame

When you get driven to live here, your life in a place like Svalbard is as pure as well buried. People that live here, they like real life, they don't accept the model of how the world is down there. If you don't fit in the world out there maybe here is your place.

Unit 6. STEADY, READY, GO!

Video 1. The Ancient Origins of the Olympics



Before you watch

A. Do you know the answers to these questions?

- Where did the Olympics originate?
- Who invented the Olympics and why?
- Who could take part in those competitions?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 6 Video 1.1](#)

honor (v)	to respect
increment (n)	an addition, an increase
foster (v)	to stimulate or encourage for the next development
competition (n)	the activity or condition of competing, contest
contest (n)	an event where people compete with each other for supremacy in sport

mythical (adj)	legendary or folkloric, not real
appreciate (v)	to respect or hold in high regard
exciting (adj)	spectacular or thrilling event
chariot (n)	two-wheeled horse-drawn transport used in ancient warfare or racing
competitor (n)	a person who takes part in an athletic contest
suit of armor (n)	metal coverings worn by soldiers to protect the body in a battle
entice (v)	to attract to take part in something
pentathlon (n)	an athletic event of five different sporty events for each competitor
inspire (v)	to motivate someone to do something
no-holds-barred fight (n)	a fight without any rules
fight (n)	a violent struggle involving the exchange of physical blows
gouge (v)	to press or squeeze something
prohibit (v)	to ban
tough (adj)	very strong
loincloth (n)	a single piece of cloth wrapped around the hips
unimpeded (adj)	without difficulties
inaugurate (v)	to begin or to start a new period
ban (v)	to taboo, to forbid
pagan (adj)	ethnic, something relating to pre-Christian era
billion (n)	a thousand and a million

C. Match the synonyms and practice them in Quizlet.**[Quizlet Unit 6 Video 1.2](#)**

1. great (adj)	a) stimulate, encourage
2. foster (v)	b) competition
3. ancient (adj)	c) opponent, rival
4. contest (n)	d) excellent, wonderful
5. competitor (n)	e) relay, drive
6. prohibit (v)	f) old, antique
7. race (n)	g) match, tournament
8. game (n)	h) supernatural being
9. foremost (adv)	i) to ban
10. god (n)	j) winner
11. cheer (n)	k) first of all
12. victor (n)	l) a sport event of five actions
13. pentathlon (n)	m) applause

While you watch



[The Ancient Origins of the Olympics](#)

D. Watch the video and decide if these statements are True or False.

1. The Olympic games began as a pagan religious festival.
2. Town of Olympia was chosen as a place to honor the god Athena.
3. The Greeks used the earliest calendar where time was marked in four-year periods called Olympiads.
4. During the sporting events contests were also held for music, singing and poetry.
5. The ancient Greek Olympics always featured just one event.
6. The ancient Greek tradition was to compete in the nude.
7. During the Roman Empire the Olympics were also held.
8. Sitius, Altius, Fortius are three cheers for the Olympics.

E. Watch the video again and circle the words you hear.

1. For the first 13/30 games the ancient Greek Olympics featured just one event – the 200 yard dash.
2. Over time new exciting contests like *boxing/boxer/box*, chariot and mule racing and even a foot race enticed many hopeful champions into the Olympic stadium.
3. The Christian Roman emperor Theodosius *banned/welcomed* pagan practices so the world soon bid a fond farewell to the Olympic games.
4. Today the summer and winter Olympics bring *international/national* world-class athletes together.

After you watch**F. Complete the summary of the video below using these words.**

*Olympiads athletes chariot religious pentathlon cheers prohibited
pagan event armor*

Olympic games began as part of a 1) _____ festival in honor of the Greek god Zeus. Today it became the greatest show of sporting excellence on Earth. The Greek's earliest calendar marked the time in four-year increments called 2) _____. For the first 13 games the ancient Greek Olympics featured just one 3) _____ – the 200 yard dash, but over time new exciting contests like boxing, 4) _____ and mule racing and even a foot race where the competitors wore a full suit of 5) _____ enticed many hopeful champions into the Olympic stadium. The combined running, jumping, wrestling, javelin throwing and hurling the discus events known as the 6) _____ inspired world-class competition and the pancration a no-holds-barred fight where only biting and eye gouging were 7) _____ ensured the toughest men were victorious. But in 391 AD the Christian Roman emperor Theodosius banned 8) _____ practices. 1500 years later in 1896 the modern Olympic games kicked off in Athens, Greece. Today the summer and winter Olympics bring international world-class 9) _____ together by the thousands uniting fans by the billions for the world's foremost sporting competition. Sitius Altius Fortius – three 10) _____ for the Olympics.

Video 2. Ten Most Unusual Extreme Sports**Before you watch****A. Do you know the answers to these questions?**

- How would you describe extreme sports?
- What are the 10 most extreme sports from your point of view?

- What are the benefits and risks of extreme sports?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 6 Video 2.1](#)

boast (v)	to talk about something with too much pride or self-satisfaction
compete (v)	to take part in a competition to reach a goal or win something by defeating others
dual (adj)	consisting of two parts
pugilistic (adj)	power of a fist
competitor (n)	a person who is your rival or enemy
opponent (n)	someone who fights another in a contest or game
sustain (v)	to support physically or mentally
participate (v)	to take part in a contest or any event
rugged (adj)	having a broken, rocky or uneven surface
terrain (n)	land or territory
plywood (n)	a strong, thin, wooden board
bruise (n)	an injury on the body
pursuit (n)	the action of following or chasing someone
annual (adj)	an event that occurs every year
piddling (adj)	trivial, little, insignificant
dignified (adj)	having something serious that is worthy of respect
awkwardness (n)	the quality of being clumsy, the feeling of discomfort
remote (adj)	very far from a certain place
strike (v)	to hit or beat with a force
zorb (v)	to roll in a large transparent capsule
ferret (n)	a small animal with sharp teeth
trampoline (n)	a piece of sport equipment to do acrobatic or gymnastic exercises

slam (v)	to catch or shut something forcefully or loudly
fascination (n)	charm, glamor or beauty
buoyant (adj)	cheerful or optimistic

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 6 Video 2.2](#)

1. compete (v)	a) champion
2. winner (n)	b) opponent, rival
3. difficult (adj)	c) clumsy
4. participant (n)	d) to contest
5. dignified (adj)	e) problem
6. focus on (v)	f) hard, complex
7. awkward (adj)	g) to roll
8. challenge (n)	h) amazing
9. unpredictable (adj)	i) respectful
10. zorb (v)	j) cheerful, optimistic
11. stunning (adj)	k) concentrate on
12. unsafe (adj)	l) hard to foresee
13. buoyant (adj)	m) hazardous, dangerous

While you watch



Ten Most Unusual Extreme Sports

D. Watch the video and decide if these statements are True or False.

1. Chessboxing has a dual nature which means the mix of the pugilistic power of boxing with the mental acuity of chess.
2. Volcano boarders are dressed in protective jumpsuits, knee pads and helmets to protect against the rugged terrain of the volcano.
3. Volcano boarders use plywood to help them stay upright as they reach speeds of 180 km/h.
4. Cheese rolling is an event where a judge rolls a wheel of cheese down a hill and numerous participants follow it.
5. Zorbing is a very easy sport inside a huge cushion.
6. Train surfing is an incredibly safe and legal sport, which usually involves climbing and surfing a top moving trains and subway cars.
7. Very large locally grown pumpkins are hollowed out and raced along a lake.

E. Watch the video again and circle the words you hear.

1. In chessboxing the first competitor to earn a *knockout/knockdown* or to checkmate their opponent is declared the winner.
2. Since its creation in 2005 volcano boarding has attracted more than *1,000/10,000/100,000* participating daredevils.
3. It is certainly a different *change/challenge* to attempt competing on one wheel rather than being balanced on a four-legged horse.
4. To “zorb” is to roll around in what is essentially an *oversized/undersized* cushioned hamster ball.

5. Originally made popular in the *1980s/1980* in Germany when train surfing was known as *s-bahn surfing*.
6. In bossaball the court includes a trampoline on each side with each team's respective attacker positioned to *slam/hit* the ball into the opposite side of the net.

After you watch

F. Complete the summary of the video below using these words.

cheese surfing mental injured helmets piddling
unpredictable regatta competitor unsafe

Chessboxing marries the pugilistic power of boxing with the 1) _____ acuity required in chess. It is comprised of five two-minute sparring rounds and six games of speed chess. The first 2) _____ to earn a knockout or to checkmate their opponent is declared the winner.

Every year thousands of thrill-seeking travelers participate in the 3) _____ of an active volcano. Boarders are dressed in protective jumpsuits, knee pads and 4) _____ to protect against the rugged terrain.

The cheese rolling event where a judge rolls a wheel of 5) _____ down a hill and numerous participants follow takes place annually. The wheel of cheese may seem like a 6) _____ prize to risk life and limb.

Zorbing means rolling around in an over-sized ball. There's an undeniable rush in the disorienting feel of the 7) _____ out-of-control movement of rolling around within the ball where you are situated in the middle of two plastic balls. The air in between them serves as a shock absorber as you experience the impact of the bouncing ball.

Train surfing is the incredibly 8) _____ and illegal sport which usually involves climbing and surfing atop moving trains and subway cars made its return to prominence in 2005. This practice has been a serious issue in South Africa where many people have been killed or 9) _____ via ill-advised surfing stunts.

Giant pumpkin kayaking. 600 to 800 pound locally grown pumpkins are hollowed out and raced along a lake. In addition to the elements 10) _____ participants have to contend with vessels that aren't necessarily hydrodynamic or buoyant.

Unit 7. EXTREME SITUATIONS

Video 1. The Deadly Race to the South Pole



Before you watch

A. Do you know the answers to these questions?

- What explorers of the South Pole can you name?
- What attracts people to the Pole?
- What are the main problems people may have there?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 7 Video 1.1](#)

anomaly (n)	something that is not normal, standard or expected
blizzard (n)	severe snowstorm with high winds and low visibility
bid (n)	offer for something
collapse (n)	crash, wreck or failure of something
crevasse (n)	deep open crack, especially one in a glacier

data (n)	facts and statistics collected for analysis
defeat (n)	loss or collapse in a contest
explorer (n)	person who discovers a new area; an adventurer
frostbite (n)	injury to a body (nose, fingers or toes) because of very low temperature
glacier (n)	slowly moving ice
hike (n)	long walk in the country or wilderness
supply depot (n)	a place for the storage of large quantities of equipment, food etc.
obstacle (n)	a problem
occur (v)	happen
predictions (n)	forecast; to tell what will happen in the future
research (n)	systematic study of material to reach new conclusions
snowstorm (n)	heavy fall of snow, especially with a high wind
starting point (n)	departure to a place
venture (n)	risky journey
endure (v)	suffer patiently or to cope with something
escape (v)	break free from control; to run away
haul (v)	pull or drag something with effort or force
sacrifice (v)	offer or kill as a religious victim
prematurely (adv)	before the due time; ahead of time
roughly (adv)	about, approximately

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 7 Video 1.2](#)

1. glance (n)	a) short travel
2. brutal (adj)	b) massive
3. journey (n)	c) crash, fail

4. occur (v)	d) look quickly
5. huge (adj)	e) try
6. hard (adj)	f) cruel
7. route (n)	g) professional
8. collapse (n)	h) happen
9. effort (n)	i) partner
10. obstacle (n)	j) way, road
11. expert (n)	k) goal, aim
12. companion (n)	l) problem
13. ambition (n)	m) difficult

While you watch



[The Deadly Race to the South Pole](#)

D. Watch the video and decide if these statements are True or False.

1. Two teams, one British, one Norwegian, trekked 900 miles into brutal territory.
2. Robert Falcon Scott's dream was to be the first person to reach the South Pole.

3. Scott's team of explorers had been conducting research in Antarctica and collected years of data on seasonal cycles on the continent.
4. Scott's team was the first to reach the South Pole.
5. By the time Scott reached his goal, Amundsen's flag was there waiting for him.
6. Amundsen's team safely reached the Pole and came back.
7. Scott's team got trapped in their tent by a blizzard. The tent, along with the bodies, journals, and photographs, was found 8 months later by a search team.
8. Weather conditions were survivable.
9. The teams of Scott and Amundsen reached the South Pole at the same time.

E. Watch the video again and circle the words you hear.

1. These are *British/ Norwegian/French* explorers standing at the South Pole in January 1912.
2. Two teams, one British, one Norwegian, trekked *900/90* miles into brutal territory and had to get back to safety before winter hit.
3. Robert Falcon Scott's *dream/aim/ambition* was to be the first person to reach the South Pole.
4. Scott planned to use pony transport for the first *425/42/25* miles across the Ross Ice Shelf
5. They believed man-hauling was the *surest/quickest/best* way to make the tricky climb up the glacier and on to the Polar Plateau, where the South Pole sits.
6. It was hard, slow work, but the route they were on had reached the *plateau/glacier* before and it seemed to be worth the effort.
7. The Norwegian team, *all/some/none/any* of them expert skiers, knew how to travel in cold conditions.
8. By the time Scott reached his goal, Amundsen's flag was there *waiting/waving* for him.
9. What Scott couldn't have known is that 1912 was an anomaly — the temperatures his party suffered through occur roughly once every *15/50* years, turning an already risky venture into a hopeless one.
10. The photo they took outside of Amundsen's tent was meant to be a gentlemanly admission of *defeat/victory* at the end of a long race.

After you watch

F. Complete the summary of the video below using these words.

*flag dream brutal heartbroken died blizzard survivable
man-hauling by the time explorers collapsed sacrificed data*

Everyone in this photo 1) _____ soon after it was taken. These are British 2) _____ standing at the South Pole in January 1912. The photo marks the finish line of a race into the unknown. Two teams, one British, one Norwegian, trekked 900 miles into 3) _____ territory and had to get back to safety before winter hit.

Robert Falcon Scott's 4) _____ was to be the first person to reach the South Pole. He collected years of 5) _____ on seasonal cycles on the continent. Scott planned to use pony transport for the first 425 miles across the Ross Ice Shelf, shoot them at the base of the Beardmore Glacier, and finish the rest of the journey on foot hauling hundreds of pounds of equipment.

They believed 6) _____ was the surest way to make the tricky climb up the glacier and on to the Polar Plateau, where the South Pole sits. It was hard, slow work.

Norwegian explorer Roald Amundsen also wanted to get to the Pole first.

The Norwegian team, all of them expert skiers, knew how to travel in cold conditions. Amundsen had started about 60 miles closer to the pole but was taking a route not yet proven to be passable. By the time Scott reached his goal, Amundsen's 7) _____ was there waiting for him. The Norwegians and their dogs had comfortably reached the Pole five weeks earlier and were almost back to their starting point 8) _____ the English arrived. Scott and his team were 9) _____.

They took this photo outside of Amundsen's tent the day they started their long journey back but weather conditions were not 10) _____.

The first man 11) _____ and soon went comatose following several falls on the glacier. The next man died about a month later, after crippling frostbite in his hands and feet. Nearly unable to walk, he left the tent and 12) _____ himself to a snowstorm. The last three, including Scott, made it here before getting trapped in their tent by a 13) _____, just 11 miles from the supply depot that would have saved their lives. The tent, along with the bodies, journals, and photographs, was found 8 months later by a search team.

The photo they took outside of Amundsen's tent was meant to be a gentlemanly admission of defeat at the end of a long race.

Video 2. Mountaineering: Height Doesn't Matter



Before you watch

A. Do you know the answers to these questions?

- What makes mountains so unique and so hazardous?
- When is Mount Everest Climbing Season?
- Is Mount Everest safe to climb?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 7 Video 2.1](#)

climbing (n)	the sport or activity of ascending mountains
subset (n)	a part of a larger group
safety (n)	the condition of being protected from danger, risk or injury
gentle (adj)	mild, soft substance
impression (n)	an idea, feeling or opinion

experience (n)	personal knowledge about facts or events
guide (v)	to show the way
summit bed (n)	flat surface on the top of the mountain
hike (n)	a journey on foot
regardless of (adj)	without paying attention to something
altitude (n)	height above sea level
fit (adj)	be in a good physical condition
survive (v)	to be or stay alive in a difficult situation
pros and cons (n)	good and bad things
gear (n)	a kind of a mechanism or machine
sleeping bag (n)	equipment to sleep at in a hike
margin (n)	a limit or border of something
boundary (n)	a border, frontier
blizzard (n)	a heavy storm with snow
enjoy (v)	to be happy
thrive on (v)	to do well or to achieve your goal
consider (v)	to think about smth carefully
exertion (n)	physical or mental effort
error (n)	a mistake
steep (adv)	sharp and abrupt

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 7 Video 2.2](#)

1. be sure (v)	a) tender, delicate
2. chance (n)	b) to inquire, to demand
3. climbing (n)	c) be certain
4. gentle (adj)	d) lucky, fortunate

5. ask (v)	e) main, significant
6. successful (adj)	f) possibility
7. extremely (adv)	g) effort
8. essential (adj)	h) mountaineering
9. option (n)	i) succeed, do well
10. exertion (n)	j) highly, very much
11. safely (adv)	k) extra, additional
12. fringe (adj)	l) version, variant
13. thrive on (v)	m) without trouble

While you watch



Mountaineering: Height Doesn't Matter

D. Watch the video and decide if these statements are True or False.

1. There's always some percentage chance that you're going to fall when you're climbing a mountain without a rope.
2. To experienced climbers the highest mountain doesn't always mean the hardest.
3. Everest is a difficult climb from the point of view of climbers.
4. The world's best alpinists consider Everest to be pretty much a hike in the hills.

5. Speed and efficiency are essential to survival so the pros and cons of every bit of gear are weighed before a big route.

E. Watch the video again and circle the words you hear.

1. Colin Haley is part of a small *subset/sunset* of climbers dedicated to climbing the world's most difficult and dangerous mountains.
2. In 2010 there were *560/516* successful summit beds on mount Everest.
3. The pros and cons of every bit of gear are weighed before a big *route/road*.
4. Climbing a route that big with that little equipment leaves you a small margin of *terror/error*.
5. Without anything to sleep or food or water you're just *gonna/going to* die pretty quick.
6. I would consider what I do a *fringe/strange* activity.

After you watch

F. Complete the summary of the video below using these words.

fit error impression climbing hike altitude thrive
survival quick fringe

When you're climbing a mountain without a rope are you sure that you're not going to fall to your death. I think there's always some percentage chance that you're going to fall. Colin Haley is part of a small subset of climbers dedicated to 1) _____ the world's most difficult and dangerous mountains. To this core group, highest doesn't mean hardest. Non-climbers generally have this 2) _____ that 'the highest means the hardest', but Everest is not a difficult climb. In 2010 there were 516 successful summit beds on mount Everest, which means to the world's best alpinists Everest is pretty much a 3) _____ in the hills. I have much more interest in mountains that regardless of their 4) _____ are difficult to climb because they're big and steep. For a lot of the routes in Patagonia or Pakistan you have to be a really good rock climber, you have to be a really good ice climber, you have to be extremely 5) _____. Speed and efficiency are essential to 6) _____ so the pros and cons of every bit of gear are weighed before a big route. Sometimes alpinists forget tents and sleeping bags. Climbing a route that big with that little equipment leaves you a small margin of 7) _____.

On a recent trip to Alaska's mount forwarder Haley tested the boundaries of this light and fast approach after completing a new route the storm moved in they had less than a half a day's worth of food left. Without anything to sleep or food or water you're just gonna die pretty 8) _____. Haley's only option was to keep moving in blizzard conditions after 72 hours of constant exertion without sleep. He made it safely back to camp.

It doesn't sound like a fun thing but just the intensity of that situation is something that I really enjoy and 9) _____ on. I would consider what I do a 10) _____ activity but definitely anyone who is dedicated to alpine climbing accepts the fact that they might die doing it.

Unit 8. TIME TO SPARE

Video 1. The Sahara Desert | Ecosystems



Before you watch

A. Do you know the answers to these questions?

- What is the Sahara Desert famous for?
- Is the Sahara Desert safe?
- Is Sahara fully explored?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 8 Video 1.1](#)

desert (n)	a dry, desolate land covered with sand
dune (n)	ring of sand in a desert formed by the wind
oasis (n)	a fertile piece of land where water and plants are found
permanent (adj)	something that lasts for a long time or remains unchanged

substantial (adj)	of considerable size, worth or importance
aquifer (n)	groundwater
exceed (v)	be greater in number or size
inch (n)	1/12 of a foot that is equal to 2.54 cm
annual (adj)	something that takes place every year
rainfall (n)	the fall of rain
harsh (adj)	unpleasantly hard, tough or rigid
arid (adj)	very dry place
survival (n)	fact of being alive in an accident
cross (v)	to go, pass or swim to another side of an area
particle (n)	a very small part or portion of an object or thing
moisture (n)	water or other liquid diffused in a small quantity or condensed on a surface
fertilize (v)	to make the land more fruitful
provide (v)	to give or to supply with products
climate change (n)	a change in global or regional climate
due to (prep)	thanks to somebody or something
expansion (n)	the action of becoming larger or more extensive
estimates (n)	an approximate calculation of the value, number or extent of something
arable (adj)	a land that is possible to grow crops on
desertification (n)	the process when a fertile land becomes desert
journey (n)	a short travel

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 8 Video 1.2](#)

1. enormous (adj)	a) normal, ordinary
2. roughly (adv)	b) great, considerable

3. dune (n)	c) to be equivalent to sth
4. approximately (adv)	d) huge
5. substantial (adj)	e) whole
6. average (adj)	f) approximately
7. entire (adj)	g) ruin
8. arid (adj)	h) sand hill
9. humid (adj)	i) about, nearly
10. equal (v)	j) collect
11. rain (n)	k) wet
12. pick up (v)	l) shower
13. destroy (v)	m) dry

While you watch



[The Sahara Desert | Ecosystems](#)

D. Watch the video and decide if these statements are True or False.

1. The Sahara Desert is the largest hot desert in the world.

2. The Sahara Desert spans over 11 countries and covers the territory roughly the size of the United States of America.
3. Sahara has only one permanent river the Nile but it has a substantial amount of aquifers and a handful of lakes.
4. The temperature during the whole year exceeds 50 degrees Celsius.
5. The Amazon rainforest depends on the Sahara for its very survival.

E. Watch the video again and circle the words you hear.

1. Sahara spans over 11 countries *excluding/including* Algeria Egypt Libya Mali and Niger.
2. It covers over 9.2 million square kilometers, roughly the size of the United States of America amounting to 31 *percent/person* of Africa.
3. The Sahara sand carried by the wind power crosses the *Atlantic /Pacific* Ocean and gets deposited in South America.
4. Without Sahara the Amazon rainforest *could be/couldn't be* potentially destroyed.
5. Approximately one third of the *desert's/dessert* expansion was due to human-made climate change.

After you watch

F. Complete the summary of the video below using these words.

*African aquifers destroyed rainforest rivers moisture
fertilizing expansion wetter*

The Sahara Desert, located on the 1) _____ continent is the largest hot desert in the world. The chief landforms of the Sahara Desert include dunes, salt flats and oasis. The Sahara has only two permanent 2) _____ the Nile and the Niger but it has a substantial amount of 3) _____ and a handful of lakes. Archaeological and geological research shows that the entire Sahara was much greener and 4) _____ than today. Did you know that the Amazon 5) _____ depends on the Sahara for its very survival? The Sahara sand gets carried by the wind power across the Atlantic Ocean. The sand particles pick up 6) _____ and bring rain along with them. This rain and dust fall on the Amazon rainforest, 7) _____ it with phosphorus and providing the water that it needs. Without Sahara the Amazon rainforest could be potentially 8) _____. Due to climate change the Sahara Desert has grown nearly 10 percent since 1920. Approximately one third of the deserts 9) _____ was due to human-made climate change.

Video 2. The First Person to Fly a Balloon Around the Globe



Before you watch

A. Do you know the answers to these questions?

- How far is it possible to go by air ballooning?
- How safe is it to travel by hot air balloon?
- How do you prepare for a hot air balloon ride?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 8 Video 2.1](#)

incredibly (adv)	to a great degree; extremely or unusually
achieve (v)	successfully reach a desired aim
balloon (n)	a large bag filled with hot air or gas to rise it in the air
ultimate (adj)	final act
challenge (n)	a problematic situation; a hardship

altitude (n)	the height of an object in relation to sea level
pressurized (adj)	airproof, hermetic
capsule (n)	a small container
perform (v)	to do any action
burner (n)	a device that can burn anything
issue (n)	an important topic or problem
terrified (adj)	something very scary, you may be afraid of
relief (n)	a feeling of relaxation from stress
push (v)	to move something with a force
manage (v)	to control or to succeeded in something
get across (v)	to go somewhere, to cross a place
jet stream (n)	a flow of exhaust gasses from a jet engine
target (n)	aim or goal
extraordinary (adj)	something very unusual
team (n)	a group of people doing something together
desert (n)	a very dry place on Earth without water
land (v)	put something on the ground from the air
fuel (n)	material such as coal, gas or oil that can be burned to produce heat or power
dregs (n)	garbage, waste
pilot (n)	a person who can operate the flying aircraft or machine

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 8 Video 2.2](#)

1. incredibly (adv)	a) about, roughly, almost
2. achieve (v)	b) cozy, pleasant
3. ultimate (adj)	c) pleasant
4. terrified (adj)	d) extremely, very much

5. comfortable (adj)	e) final, terminal
6. nearly (adv)	f) reach, get, obtain
7. easy (adj)	g) scared, frightened
8. huge (adj)	h) try to do smth
9. manage (v)	i) unusual
10. climb (v)	j) stupid
11. extraordinary (adj)	k) great, large, gigantic
12. excited (adj)	l) agitated, thrilled, enthusiastic
13. foolish (adv)	m) go up the hill or mountain

While you watch



'I was the first person to fly a balloon around the globe'

D. Watch the video and decide if these statements are True or False.

1. Air ballooning is one of the oldest forms of flight.
2. It is possible to fly around the world in the basket at any altitude.
3. Hot air ballooning always happens without any challenges.
4. The pilots told us about what happened to them during their flight.
5. The pilots could manage to land their balloon successfully.

E. Watch the video again and circle the words you hear.

1. The morning of takeoff *was/wasn't* difficult in many ways.
2. For the first 11 days, which took us *out/off* beyond Taiwan, the balloon performed really well.
3. We lost *communicators/communications*, we lost three of our six burners.
4. We're still nearly 2,000/200 miles away from Hawaii.
5. We came down and we landed in Egypt in the middle of the Egyptian *desert/dessert* with the final dregs of our fuel.

After you watch

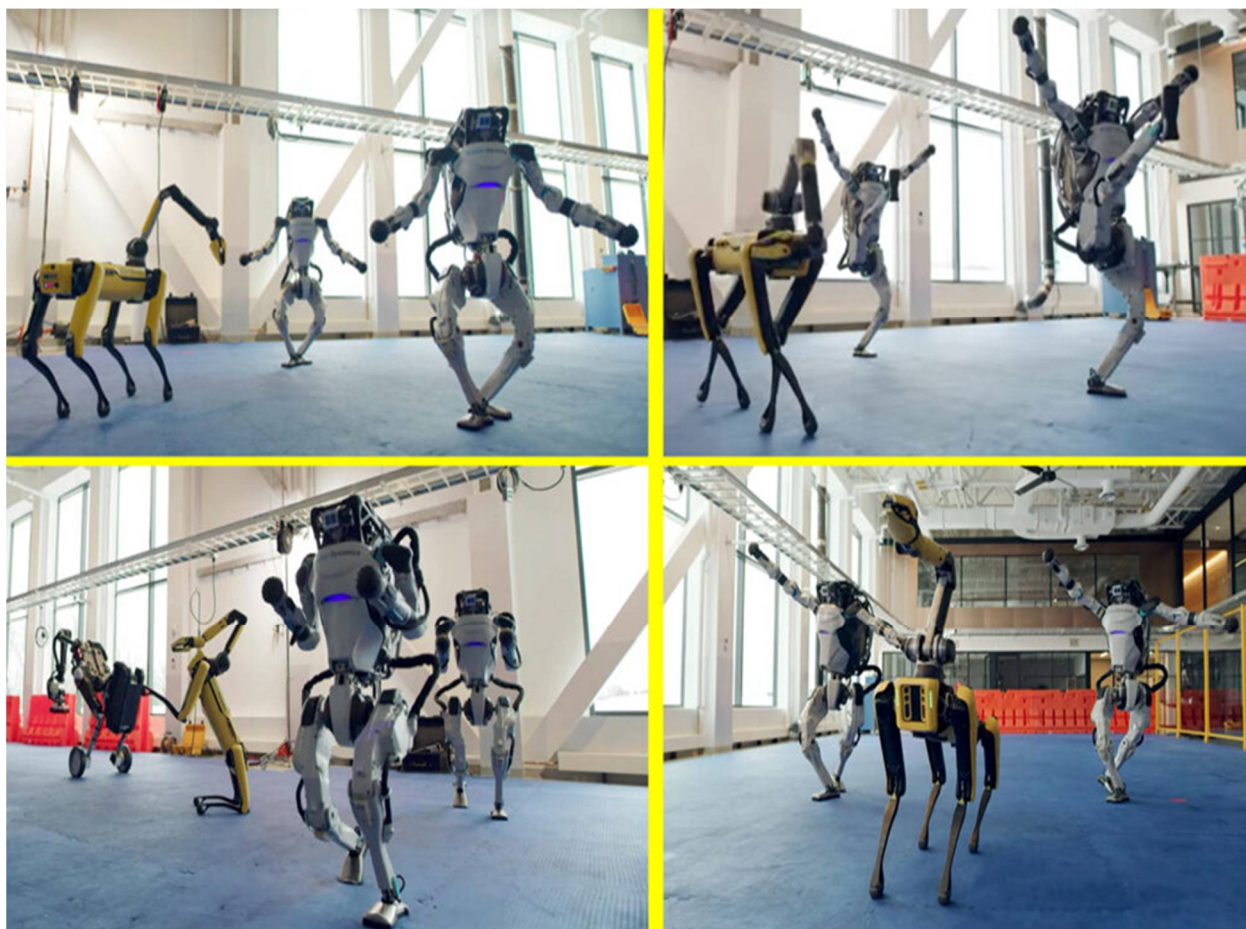
F. Complete the summary of the video below using these words.

*burners relief ultimate dregs foolish satisfying world
heating extraordinary takeoff*

It is an incredibly difficult thing to achieve – to get a balloon to fly around the 1) _____. This had never been done before. It was the 2) _____ challenge for a balloon. The morning of 3) _____ was difficult in many ways. We tried to make things as comfortable as possible. For the first 11 days, the balloon performed really well. I think that was the most 4) _____ time. Then things started to go wrong. We lost three of our six 5) _____. Because we were pushing the balloon as high as we possibly could, we lost our 6) _____ system. Now everything was covered in ice inside and outside. When we got communications back, there was a huge 7) _____. We were doing 160/170 miles an hour. I mean in a balloon, which is 8) _____. We were so excited. We came down and we landed in Egypt in the middle of the Egyptian desert with the final 9) _____ of our fuel. We were just incredibly relieved. I don't think it was a 10) _____ thing to do.

Unit 9. HIGH-TECH WORLD

Video 1. Five Interesting Facts About Atlas by Boston Dynamics



[Boston Dynamics. Do You Love Me?](#)

Before you watch

A. Do you know the answers to these questions?

- Have you ever heard of Boston Dynamics?
- What images spring to mind when you hear the word 'robot'?
- Will robots take over the world one day?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 9 Video 1.1](#)

agility (n)	ability to move quickly and easily
dynamic (adj)	(of a process or system) characterized by constant change, activity, or progress
maneuver (v)	move skillfully or carefully

parkour (n)	the activity or sport of moving rapidly through an area, negotiating obstacles by running, jumping, and climbing
robot (n)	a machine resembling a human being and able to replicate certain human movements and functions automatically
hardware (n)	tools, machinery, and other durable equipment
mobile (adj)	able to move or be moved freely or easily
compact (adj)	closely and neatly packed together
hydraulic (adj)	operated by a liquid moving in a confined space under pressure
valve (n)	a device for controlling the passage of fluid or air through a pipe, duct, etc.
battery (n)	a container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power
power (n)	ability to act or produce an effect
joint (n)	a point at which parts of an artificial structure are joined
locomotion (n)	movement or the ability to move from one place to another
vision (n)	the faculty or state of being able to see
humanoid (n)	a being resembling a human in its shape
particular (adj)	used to single out an individual member of a specified group or class
software (n)	the programs and other operating information used by a computer
flexible (adj)	capability to adapt to new, or changing requirements
algorithm (n)	a procedure for solving a mathematical problem
template (n)	something that establishes or serves as a pattern
vault (n)	to leap vigorously
simulation (n)	imitation of a situation or process
obstacle (n)	a thing that blocks one's way or prevents progress
challenge (n)	a call to take part in a contest or competition

C. Match the synonyms and practice them in Quizlet.***Quizlet Unit 9 Video 1.2***

1. agility (n)	a) movement
2. hardware (n)	b) accumulator
3. battery (n)	c) energy
4. complex (adj)	d) pattern
5. power (n)	e) equipment
6. locomotion (n)	f) skill
7. particular (adj)	g) complicated
8. mobile (adj)	h) special
9. perform (v)	i) fulfill
10. joint (n)	j) connection
11. algorithm (n)	k) movable
12. limitless (adj)	l) logic
13. template (n)	m) boundless

While you watch



5 Interesting Facts About Atlas by Boston Dynamics

D. Watch the video and decide if these statements are True or False.

1. Atlas is the most dynamic humanoid robot.
2. By training Atlas to maneuver its way through complex parkour courses, Boston Dynamics engineers develop new movements inspired by human behaviors.
3. Atlas drives only hardware. Software innovations are used only in the newest robots at Boston Dynamics.
4. There are many important technical problems and Boston Dynamics are trying to solve all of them at once.
5. Robotics is developing and now the team creates a smaller number of template behaviors that can be matched to the environment and executed online.
6. If we jumped over the barrier, we would take advantage of certain properties of our bodies that the robot does not have.

E. Watch the video again and circle the words you hear.

1. Atlas has one of the world's most compact *mobile/ static* hydraulic systems.
2. The robot uses 3d printed parts to give it the *strength/mobility*.
3. If robots can move as the average *adult human/child*, the range of potential applications will be practically limitless.
4. It's a whole-body activity that requires Atlas to maintain its *balance/weight* in

different situations.

5. Atlas's behaviors are supported by a *flexible/ rigid* control system.
6. *Simulation/ archetype* is an essential development tool for the Atlas controls team.

After you watch

F. Complete the summary of the video below using these words.

<i>agility</i>	<i>demonstrate</i>	<i>humanoid-robot</i>	<i>hydraulic</i>	<i>battery</i>
<i>movements</i>	<i>3d printed</i>	<i>mobility</i>	<i>parkour</i>	<i>backflip</i>

Atlas is the most dynamic 1) _____ currently on the market. Its state-of-the-art hardware gives the robot the power and balance to 2) _____ human level 3) _____.

The robot has one of the world's most compact mobile 4) _____ systems. The custom 5) _____, valves and a compact hydraulic power unit enable Atlas to deliver high power. To any of its 28 hydraulic joints for impressive feats of 6) _____. Atlas's advanced control system enables highly diverse and agile locomotion, while algorithms reason through complex dynamic interactions involving the whole body and environment to plan movements. The robot uses 7) _____ parts to give it the strength to weight ratio necessary for leaps and somersaults.

By training Atlas to maneuver its way through complex 8) _____ courses, Boston Dynamics engineers develop new 9) _____ inspired by human behaviors and push the humanoid robot to its limits.

A robot's ability to complete a 10) _____ may never prove useful in a commercial setting. But it doesn't take a great deal of imagination or sector specific knowledge to see why it would be helpful for Atlas to be able to perform the same range of movements.

Ultimately, pushing the limits on a humanoid-robot like Atlas drives hardware. And software innovation that translates to all of our robots at Boston Dynamics. Parkour as narrow and specific as it may seem gives the Atlas team a perfect sandbox to experiment with new behaviors.

It's a whole-body activity that requires Atlas to maintain its balance in different situations.

Video 2. Building the World's Largest Power Plant



Before you watch

A. Do you know the answers to these questions?

- What is the World's Most Powerful Dam?
- How do you think, can an engineering construction affect Earth's Rotation?
- Are hydropower stations environmentally friendly?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 9 Video 2.1](#)

power plant (n)	an installation where electrical power is generated for distribution
fossil fuels (n)	a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms
renewable (adj)	(of a source of energy) not depleted when used

generate (v)	produce (energy, especially electricity)
hydroelectric (adj)	relating to the generation of electricity using flowing water to drive a turbine that powers a generator
dam (n)	a barrier preventing the flow of water
seal (v)	fasten or close securely
penstock (n)	a sluice or floodgate for regulating the flow of a body of water
generator (n)	a machine for converting mechanical energy into electricity
turbine (n)	a machine for producing continuous power in which a rotor is made to revolve by a fast-moving flow of water
flood (n)	an overflow of a large amount of water beyond its normal limits
volatile (adj)	liable to change rapidly and unpredictably, especially for the worse.
grid (n)	a network of conductors for distribution of electric power
argue (v)	to give reasons for or against something
outperform (v)	perform better than
ambition (n)	desire to achieve a particular end
output (n)	the amount of something produced by a person, machine, or industry
volume (n)	the amount of space that a substance or object occupies
number (n)	a sum of units
upstream (adv)	in the direction opposite to the flow of a stream
roughly (adv)	without completeness or exactness
displace (v)	to remove from the usual or proper place
outweigh (v)	to exceed in weight, value, or importance
transform (v)	to change in character or condition
prevent (v)	to keep from happening or existing

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 9 Video 2.2](#)

1. renewable (adj)	a) approximately
2. volatile (adj)	b) surpass
3. dam (n)	c) barrage
4. generate (v)	d) changeable
5. output (n)	e) intention
6. volume (n)	f) produce
7. penstock (n)	g) sustainable
8. argue (v)	h) capacity
9. number (n)	i) quantity
10. outperform (v)	j) gateway
11. ambition (n)	k) dislocate
12. displace (v)	l) dispute
13. roughly (adv)	m) yield

While you watch**Building the world's largest (and most controversial) power plant*****D. Watch the video and decide if these statements are True or False.***

1. China's Three Gorges Dam isn't just the world's largest hydroelectric plant.
2. China's Three Gorges Dam is capable of producing more energy than all hydroelectric stations on the Earth.
3. Due to penstocks, the Three Gorges Dam can produce power regardless of the weather.
4. The Three Gorges Dam is located near the basin of the Yangtze River, famous for its deadly floods during rainy seasons.
5. Government's relocation programs were widely considered sufficient.
6. In 2018, the dam generated the amount of electricity enough to power New York City for almost three years.

E. Watch the video again and circle the words you hear.

1. When the project was completed in 2012, China became the *second world's largest/ world's largest* producer of electricity.
2. In 2018, the dam generated enough electricity to power nearly 2% of China for *one year/two years*.
3. And yet, two years earlier, the Itaipu Dam which was less than half the size of the Three Gorges Dam actually generated *more/almost the same amount of* electricity.
4. This dam rivalry is far from over, and other projects like the Inga Falls Dam

in the Democratic Republic of Congo are also vying for the title of the *most powerful/ longest* power plant.

5. Construction of the Three Gorges Dam began in 1994/2000.
6. The Three Gorges Dam relied on a time-tested source of renewable energy: *running water/nuclear energy*.

After you watch

F. Complete the summary of the video below using these words.

<i>three Gorges Dam</i>	<i>1994</i>	<i>energy</i>	<i>turbines</i>	<i>sites</i>	<i>grids</i>
<i>Controversial</i>		<i>upstream</i>	<i>ambition</i>		

Stretching over 2.3 kilometers, China's 1) _____ isn't just the world's largest hydroelectric plant. It's capable of producing more 2) _____ than any other power plant on Earth.

When construction finally began in 3) _____, the plans were epic. The dam would contain 32 4) _____ — 12 more than the previous record holder, South America's Itaipu Dam. The turbines would supply energy to two separate power stations, each connecting to a series of cables spanning hundreds of kilometers. Electricity from Three Gorges would reach power 5) _____ as far away as Shanghai. However, the human costs of this 6) _____ were steep.

To create the dam's reservoir, workers needed to 7) _____ over 600 square kilometers of land 8) _____. This area included 13 cities, hundreds of villages, and over 1,000 historical and archaeological 9) _____. The construction displaced roughly 1.4 million people, and the government's relocation programs were widely considered insufficient. Many argued against this 10) _____ construction, but others estimated that the lives saved by the dam's flood protection would outweigh the trauma of displacement.

This dam rivalry is far from over, and other projects like the Inga Falls Dam in the Democratic Republic of Congo are also vying for the title of most powerful power plant. But whatever the future holds, governments will need to ensure that a power plant's environmental and human impact are as sustainable as the energy it produces.

Unit 10. THAT'S ENTERTAINMENT

Video 1. The Great Barrier Reef



Before you watch

A. Do you know the answers to these questions?

- Do you like traveling? Why? What places have you visited?
- Why is the Great Barrier Reef so special?
- Will the Great Barrier Reef still exist in 2050?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 10 Video 1.1](#)

splinter (v)	break or cause to break into small sharp fragments
glide (v)	move with a smooth continuous motion
predatory (adj)	relating to or denoting an animal or animals preying naturally on others
intricately (adv)	in a very complicated or detailed manner

intimately (adv)	in a way that involves detailed knowledge
habitat (n)	the natural home or environment of an animal, plant
extract (v)	remove or take out, especially by effort or force
diverse (adj)	showing a great deal of variety; very different
tentacle (n)	a slender, flexible limb or appendage in an animal, used for grasping or moving about, or bearing sense organ
submerge (v)	cause to be under water
endure (v)	suffer something difficult, unpleasant, or painful
designate (v)	the state officially that a place or thing has a particular character or purpose
slug (n)	a small, usually black or brown creature with a long, soft body and no arms or legs, like a snail but with no shell
heritage (n)	property that is or may be inherited; an inheritance
shrub (n)	a plant with a wooden stem and many small branches that usually does not grow very tall
cluster (n)	a group of similar things positioned or occurring closely together
splendor (n)	magnificent and splendid appearance
solitary (adj)	done or existing alone
clam (n)	a marine bivalve mollusk with shells of equal size
consequence (n)	a result of a particular action or situation, often one that is bad or not convenient
surround (v)	be everywhere around something
hatchling (n)	a young animal that has recently emerged from its egg
shelter (n)	protection from bad weather, danger, or attack
lay (v)	put down, especially gently or carefully
return (v)	come back

C. Match the synonyms and practice them in Quizlet.**[Quizlet Unit 10 Video 1.2](#)**

1. provide (v)	a) antenna
2. cluster (n)	b) closely
3. splendor (n)	c) bush
4. change (n)	d) slip
5. shrub (n)	e) group
6. endure (v)	f) different
7. tentacle (n)	g) alteration
8. intimately (adv)	h) suffer
9. diverse (adj)	i) get back
10. glide (v)	j) magnificence
11. extract (v)	k) split
12. splinter (v)	l) ensure
13. return (v)	m) choose

While you watch



[The Great Barrier Reef](#)

D. Watch the video and decide if these statements are True or False.

1. From space the east coast of Brazil appears to be in the embrace of a giant opal.
2. Spanning more than 1000 kilometers and submerged reefs between the Queensland coast and western edge of the Pacific ocean diving in.
3. Opal seems to splinter into millions of pieces.
4. Whirlpools of small metallic blue fish barracuda gliding like silver submarines and occasionally lone predatory sharks.
5. It is as diverse as a rainforest mosaic of more than 10 types of habitats hosting thousands of species of marine life as many as a hundred different kinds of coral may occupy a single acre of ocean.
6. Established as a national park in 1975, the Great Barrier Reef was designated as a world heritage site six years later.
7. The Great Barrier Reef is like an underwater city whose buildings are alive.

E. Watch the video again and circle the words you hear.

1. From space the east coast of *Australia/Brazil* appears to be in the embrace of a giant opal.
2. Spanning more than *2000/1000* kilometers and submerged reefs between the Queensland coast and western edge of the *Pacific/Atlantic* ocean diving in.

3. Opal seems to splinter into *millions/two millions* of pieces.
4. The Great Barrier Reef is like an underwater *city/mountain*.
5. It is as diverse as a *rainforest/ocean*, a *mosaic* of more than 70 types of habitats hosting thousands of species of marine life as many as a hundred different kinds of coral may occupy a single acre of ocean.
6. The *ocean/reef* is home to more than 4000 kinds of mollusks from tiny sea slugs nudibranchs to giant clams.
7. Today about 43/33 of it is fully protected from fishing and other extractive activities

After you watch

F. Complete the summary of the video below using these words.

<i>designated</i>	<i>lacy</i>	<i>enduring</i>	<i>habitats</i>	<i>embrace</i>	<i>extractive</i>
	<i>slugs</i>	<i>creatures</i>	<i>edge</i>	<i>diverse</i>	

From space the east coast of Australia appears to be in the 1) _____ of a giant opal. The Great Barrier Reef is a 2) _____ living wall. Spanning more than 2000 kilometers and submerged reefs between the Queensland coast and western 3) _____ of the Pacific ocean diving in.

The Great Barrier Reef is like an underwater city whose buildings are alive with millions of small 4) _____ whose lives are intimately and intricately connected. It is as 5) _____ as a rainforest, a mosaic of more than 70 types of 6) _____ hosting thousands of species of marine life as many as a hundred different kinds of coral may occupy a single acre of ocean. The reef is home to more than 4000 kinds of mollusks from tiny sea 7) _____ nudibranchs to giant clams.

Established as a national park in 1975, the Great Barrier Reef was 8) _____ as a world heritage site six years later. Today about 33 of it is fully protected from fishing and other 9) _____ activities and efforts are underway to deal with pollution overfishing and the consequences of climate change. The Great Barrier Reef appears to be about 20 000 years old but geologists using deep coring techniques have found evidence of ancient corals there that are half a million years old with care for the future of Australia's living treasure. The Great Barrier Reef will be at least as 10) _____ as its magnificent past you.

Video 2. Beginners Guide To Windsurfing



Before you watch

A. Do you know the answers to these questions?

- How do you entertain? What places do you visit?
- What are your favourite activities? What do you prefer more?
- Did you try windsurfing? What is your impression?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 10 Video 2.1](#)

equipment (n)	the necessary items for a particular purpose
rig (n)	the particular way in which a sailboat's masts, sails, and rigging are arranged
stance (n)	the way in which someone stands
obstruction (n)	something that blocks a road, passage, entrance
joint (n)	a point at which parts of an artificial structure are joined
fin (n)	a thin vertical part sticking out of the body of especially a fish that helps balance and movement

rear (n)	the back part of something
lean (v)	be in or move into a sloping position
slightly (adj)	a small degree; not considerably
approach (v)	come near or nearer to (someone or something) in the distance
upwind (adj)	situated or moving in the opposite direction to that in which the wind is blowing
ease (v)	make less serious or severe
mast (n)	a tall upright post, spar, or other structure on a ship or boat, in sailing vessels, generally carrying a sail or sails
tack (v)	fasten or fix in place with tacks
wrap (v)	cover or enclose (someone or something) in paper or soft material
steer (v)	guide or control the movement of (a vehicle, vessel, or aircraft)
extended (adj)	made larger; enlarged
generate (v)	cause (something, especially an emotion or situation) to arise or come about
grab (v)	seize suddenly and roughly
boom (n)	a loud, deep, resonant sound
grasp (v)	hold firmly
hairpin (n)	a U-shaped pin for fastening the hair
flap (n)	wave something
release (v)	set free
surface (n)	the outside part or uppermost layer of something

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 10 Video 2.2](#)

1. equipment (n)	a) position
2. stance (n)	b) facility
3. obstruction (n)	c) a bit

4. joint (n)	d) back
5. rear (n)	e) connection
6. lean (v)	f) weaken
7. slightly (adj)	g) barrier
8. approach (v)	h) come
9. ease (v)	i) incline
10. tack (v)	j) capture
11. wrap (v)	k) control
12. steer (v)	l) roll
13. grab (v)	m) fasten

While you watch



[Beginners Guide To Windsurfing](#)

D. Watch the video and decide if these statements are True or False.

1. The best conditions to learn to windsurf in are normally flat water anywhere from 3 up to roughly 10 to 15 knots as your skills progress.
2. You can start to get unwindy conditions or start to decrease your sail size.
3. Approach the board from the opposite sides of the rig, placing your hands and keeping your body weight over the back line.

4. Grab the uphaul and check the wind direction.
5. Use your ribs, not your back to pull the rig out of the water working hand over hand, always keeping your weight over the left line.
6. Grasp the mast below the boom with extended arms.
7. If you lean the rig to the back of the board, it turns against the wind.
8. The secure position is the first chance to get the rig up and out of the water.

E. Watch the video again and circle the words you hear.

1. From setting up the *device/equipment* to recovering the rig from the water and your first basic turns.
2. Once you've turned the board through *180/90* degrees and you're back in your secure position, your turn is complete.
3. In the rear of the *ship/boat*, I have this 30 cm fin and that helps me go in a straight line.
4. Place the back hand on and pull in slightly to generate *power/abilities*.
5. The *dangerous/secure* position is the first chance to get the rig up and out the water.
6. Use your *legs/ankles*, not your back to pull the rig out of the water working hand over hand, always keeping your weight over the centerline.
7. Always look towards your goal point, your *head/waist* is your most important part of your body.

After you watch

F. Complete the summary of the video below using these words.

grab obstructions extended grasp tack mast approach
slightly steer increase

Let's look at the surfboard and how best to set it up for a beginner windsurfer. The most important part of the board to think about is what we call the center line. In the rear of the boat, I have this 30 cm fin and that helps me go in a straight line. The best conditions to learn to windsurf in are normally flat water anywhere from 3 up to roughly 10 to 15 knots as your skills progress. You can start to get windy conditions or start to 1) _____ your sail size. 2) _____ the board from the opposite sides of the rig, placing your hands and keeping your body weight over the centerline. 3) _____ the uphaul and check the wind direction. Stand up and lean back 4) _____. Use your legs, not your back to pull the rig out of the water working hand over hand, always keeping your weight over the centerline. 5) _____ the mast below the boom with 6) _____ arms.

Orientate yourself to the wind and it's the beginning and the end of all the moves you do as a beginner. Pick a goal point ahead. Take your front hand off the 7) _____ and move across your body and onto the boom. Step back on the board, pointing your front foot forward. Turn your hips and shoulders to face your goal point and draw the rig across your body and upright, sink your weight down for the back leg. To 8) _____ towards the wind, look towards the wind and pick a new goal point. After a while, check for 9) _____ and 10) _____. Once you've tackled the same thing again, pick a new goal point closer to the wind and steer towards it.

Unit 11. LESSONS TO LEARN

Video 1. Oxford University Highlights



Before you watch

A. Do you know the answers to these questions?

- Why is Oxford University so famous?
- What do you know about Oxford University ?
- Would you like to study at Oxford University?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 11 Video 1.1](#)

pinnacle (n)	the most successful point; the culmination
spire (n)	a tapering conical or pyramidal structure on the top of a building, typically a church tower
refit (n)	replace or repair machinery, equipment, and fittings in
alumnus (n)	a graduate or former student, especially a male one, of a particular school, college, or university
copyright (n)	the legal right to control the production and selling of a book, play, film, photograph, or piece of music

depict (v)	show or represent by a drawing, painting, or other art form
ascend (v)	go up or climb
survive (v)	continue to live or exist, especially in spite of danger or hardship
merge (v)	combine or cause to combine to form a single entity
substantially (adj)	a great or significant extent
resemblance (n)	the state or fact of being similar
focus (v)	pay particular attention to
commemorate (v)	recall and show respect for (someone or something)
comprise (v)	consist of; be made up of
prayer (n)	a solemn request for help or expression of thanks addressed to God or an object of worship
establish (v)	set up (an organization, system, or set of rules) on a firm or permanent basis
replace (v)	put (something) back in a previous place or position
estate (n)	all the money and property owned by a particular person, especially at death
replica (v)	an exact copy
profit (n)	money that is earned in trade or business after paying the costs of producing and selling goods and services
imprison (v)	put or keep in prison or a place like a prison
expansion (n)	the action of becoming larger or more extensive
rowdy (adj)	noisy and disorderly
quadrangle (n)	a four-sided plane figure
refer (v)	mention or allude to

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 11 Video 1.2](#)

1. pinnacle (n)	a) exist
2. refit (n)	b) significantly

3. alumnus (n)	c) mention
4. refer (v)	d) graduate
5. depict (n)	e) rise
6. ascend (v)	f) represent
7. survive (v)	g) top
8. merge (v)	h) set
9. substantially (adj)	i) re-equip
10. resemblance (n)	j) join
11. rowdy (adj)	k) consist
12. comprise (v)	l) noisy
13. establish (v)	m) similarity

While you watch



[Oxford University Highlights](#)

D. Watch the video and decide if these statements are True or False.

1. Oxford University, also known as the University of Oxford, is a collegiate research university in Scotland.
2. It is one of the most prestigious universities in the world.
3. Broad Street is known for its museum, locally the street is known as the Broad.
4. Oxford has educated a wide range of famous alumni.

5. Further down on Broad Street is the Clarendon building and the Circular building on the right is the Oxford library.
6. Perfect bridge, often called the Bridge of Sighs, is a Skyway joining two parts of Hertford College over New College Lane.
7. The library's construction and maintenance was funded from the estate of Dr. John Radcliffe, who died in 1714.

E. Watch the video again and circle the words you hear.

1. There is evidence of teaching as early as 1096/1196, making it the oldest university in the English-speaking world and the world's second oldest university in continuous history.
2. Operation Mortis Memorial is a stone *museum/monument* that Kemmerer AIT's the 16th century Oxford martyrs.
3. Oxford has educated a wide range of famous alumni including 28 prime ministers of the *Commonwealth countries/United Kingdom*.
4. Printing House was also formally *a police station/hospital*, a university registry office and it now houses the admissions departments.
5. The Radcliffe *Camera/ Theater* stands along with its circular shape make it the focal point of Oxford University.
6. The *castle/church* was established on this site at the center of the old walled city in anglo-saxon times dating to 1086.

After you watch

F. Complete the summary of the video below using these words.

<i>building</i>	<i>campus</i>	<i>profits</i>	<i>surviving</i>	<i>resemblance</i>	<i>presented</i>
	<i>alumni</i>	<i>replica</i>	<i>altered</i>	<i>previously</i>	

Oxford University is one of the most prestigious universities in the world. Oxford University is made up of 39 individual colleges and does not have a main 1) _____, it is approximately 25,000 students. Oxford has educated a wide range of famous 2) _____ including 28 prime ministers of the United Kingdom, many heads of state from governments around the world, 72 Nobel Prize laureates and its alumni have 160 Olympic medals.

The Clarendon 3) _____ is an early 18th century neoclassical building that was built between 1711 and 1715. It was built to house the Oxford University Press which had 4) _____ been inside the Sheldonian Theater. It owes its name to the fact that it was partly paid for by the 5) _____ from a book called "The History of the Great Rebellion" by Lord Clarendon, whose son 6) _____ the University with his copyright. It was known as the Printing House until 1832.

Hereford Bridge was never 7) _____ to be a replica of the Venetian bridge and instead it bears a closer 8) _____ to the Rialto Bridge in Venice. It was completed in 1914.

The timber-frame building on the corner of Corn Market and Ship Streets originally comprised three separate shops. It is the 9) _____ half of a building completed around 1386, known as the New Inn. It was 10) _____ in the 17th and 19th centuries and was restored in 1983.

Video 2. Ten Harvard University Facts



Before you watch

A. Do you know the answers to these questions?

- Have you ever heard about Harvard University?
- Is Harvard No 1 University?
- Is it hard to get into Harvard? Why?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 11 Video 2.1](#)

admire (v)	regard with respect or warm approval
establish (v)	set up (an organization, system, or set of rules) on a firm
subscribe (v)	arrange to receive something regularly
notification (n)	the action of notifying someone or something
award (n)	a prize or other mark of recognition given in honor of an achievement
honor (n)	high respect; great esteem

quality (n)	the degree of excellence of something
multiple (adj)	having or involving several parts, elements, or members
landmark (v)	an object or feature of a landscape that is easily seen and recognized from a distance
lease (v)	grant (property) on lease
purpose (n)	the reason for which something is done
focus (v)	pay particular attention to
influencer (n)	a person or thing that influences another
forensic (n)	scientific tests or techniques used in connection with the detection of crime
investigation (n)	the action of investigating something or someone
awesome (adj)	inspiring great admiration
doubt (v)	feel uncertain about
unfair (adj)	not based on or behaving according to the principles of equality and justice
endowment (n)	the action of endowing something or someone
assumption (n)	a thing that is accepted as true or as certain to happen, without proof
exclusivity (n)	the right to have or do something that is limited to only one person or organization
attend (v)	be present at (an event, meeting)
fund (n)	a sum of money saved or made available for a particular purpose
label (v)	label something or someone is also to name that thing's or person's character
embarrassing (adj)	causing embarrassment

C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 11 Video 2.2](#)

1. admire (v)	a) mark
----------------------	---------

2. embarrassing (adj)	b) notice
3. notification (n)	c) discouraging
4. label (n)	d) delight
5. multiple (adj)	e) visit
6. lease (v)	f) contribution
7. purpose (n)	g) unjust
8. investigation (n)	h) hesitate
9. doubt (v)	i) inquiry
10. unfair (adj)	j) goal
11. endowment (n)	k) rent
12. assumption (n)	l) numerous
13. attend (v)	m) conjecture

While you watch



Ten Harvard University Facts

D. Watch the video and decide if these statements are True or False.

1. Harvard University colleges and universities are institutions of prestige and intellect, but for a few of them their roots reach deep into the history of our

- country.
- Harvard University colleges and universities are European oldest Universities.
 - Harvard University holds a record number of honors and awards with 161 Nobel Laureates, 23 heads of state, and 132 Pulitzer Prize winners.
 - By the end of the first decade of the 21st century, Harvard had educated six US presidents as the years progressed and more students funnel through the school.
 - Nowadays Harvard universities have multiple campuses and numerous buildings, they are like small towns to themselves.
 - Harvard University banned football as a waste of time.
 - In 1977, female Radcliffe students were able to study at Harvard and receive an official Harvard degree

E. Watch the video again and circle the words you hear.

- Harvard University was established in 1636 *before/after* creating the state of America.
- Harvard is one of the most well-known and admired higher learning institutions in *the USA/ world*.
- Today Harvard *prides/ can't pride* itself on gender equality as well as being an advocate for LGBTQ rights.
- Harvard University runs one of the best *health/forensic investigation* programs in the world leading the way in numerous industry changing studies.
- Each year Harvard University gets thousands of *applications/endowments* from students all over the world.
- The biggest and most embarrassing statue *depicts/doesn't depict* John Harvard.

After you watch

F. Complete the summary of the video below using these words.

admired multiple boasts quality humongous awards
holdings double roots established

Harvard University colleges and universities are institutions of prestige and intellect, but for a few of them their 1) _____ reach deep into the history of our country. This is the case of America's oldest university. Harvard 2) _____ in 1636 before America was even a country.

Harvard is one of the most well-known and 3) _____ higher learning institutions not just in the country, but in the world. Harvard University holds a record number of honors and 4) _____ with 161 Nobel Laureates, 23 heads of state, and 132 Pulitzer Prize winners. Harvard has been producing 5) _____ graduates right from the second president of the USA back in 1797 – John Adams.

The university is like its own city. Nowadays universities are comprised of 6) _____ campuses and numerous buildings, they are like small towns to themselves. When

Harvard was first started, it was a single frame house and a college yard. Now their real estate 7) _____ alone total 5.457 acres of land, which is over 4 000 football fields.

Widener library is 8) _____ you would expect a university as big and as old as Harvard to have a serious collection of books. It's definitely true what you may not realize is exactly how massive it is. Harvard 9) _____ the oldest collection of books. In the country there are 79 libraries in total and the largest is known as the Widener Memorial Library; it is home to 3.5 million books in over 100 languages and over 57 miles of shelves. The only other library in the United States that is larger than the one at Harvard, is the library of congress which is nearly 10) _____ the size of Widener Library.

Women were not always allowed to attend Harvard. Today Harvard prides itself on gender equality as well as being an advocate for LGBTQ rights, but it wasn't always that way. Until 1999 Radcliffe College, now the Radcliffe institute for advanced study, was essentially the all-female counterpart to Harvard courses at one point joint diplomas were offered between the two universities and a merger started. In 1977 this allowed Radcliffe students to take Harvard classes, but didn't offer those women an official Harvard degree. Fortunately, the practice is not in place today at Harvard as a matter of fact the female demographic makes up about 49 of the total student body.

Unit 12. THE BODY BEAUTIFUL

Video 1. How to Improve Memory



Before you watch

A. Do you know the answers to these questions?

- How important is memory for people?
- Can people develop memory?
- How long is the memory of a human?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 12 Video 1.1](#)

memory (n)	something remembered from the past
habit (n)	a settled or regular tendency or practice, especially one that is hard to give up
area (n)	a subject or range of activity or interest

click (v)	select (an option on an electronic interface) by pressing a button or touching a screen
enemy (n)	a person who is actively opposed or hostile to someone or something
damage (v)	inflict physical harm on (something) so as to impair its value, usefulness, or normal function
furniture (n)	large movable equipment, such as tables and chairs, used to make a house, office, or other space suitable for living or working
avoid (v)	keep away from or stop oneself from doing (something)
piece (n)	a portion of an object or of material, produced by cutting, tearing, or breaking the whole
reason (n)	a cause, explanation, or justification for an action or event
way (n)	a method, style, or manner of doing something
introduce (v)	bring (something, especially a product, measure, or concept) into use or operation for the first time
sensitive (adj)	having or displaying a quick and delicate appreciation of others' feelings
focus (v)	pay particular attention to
doorway (n)	an entrance to a room or building through a door
improve (v)	make or become better
encourage (v)	give support, confidence, or hope to
amount (n)	a quantity of something, especially the total of a thing or things in number, size, value, or extent
disease (n)	a disorder of structure or function in a human, animal, or plant
excessive (adj)	more than is necessary, normal
moderation (n)	the avoidance of excess or extremes
imagine (v)	form a mental image or concept of
inflammation (n)	a localized physical condition in which part of the body becomes reddened, swollen, hot, and often painful

stimulant (n)	a substance that raises levels of physiological or nervous activity in the body
restrict (v)	put a limit on

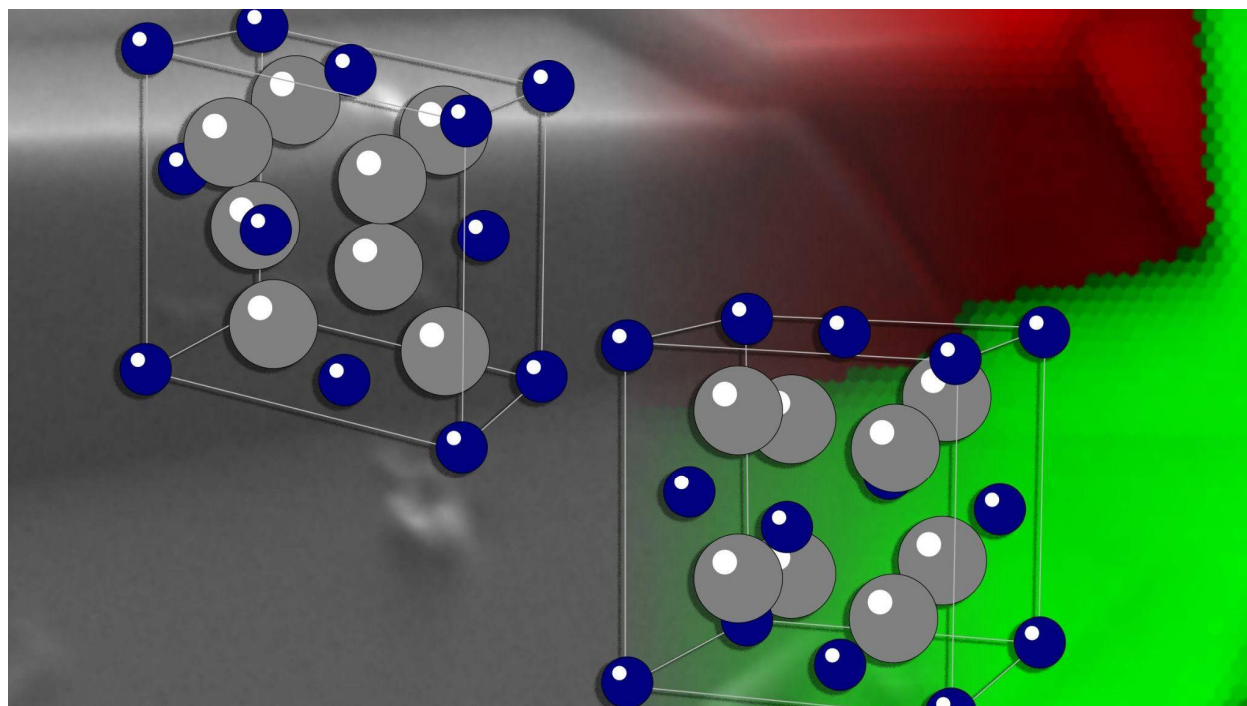
C. Match the synonyms and practice them in Quizlet.



[Quizlet Unit 12 Video 1.2](#)

1. habit (n)	a) fancy
2. area (n)	b) temperance
3. enemy (n)	c) illness
4. damage (v)	d) concentrate
5. piece (n)	e) tactful
6. reason (n)	f) road
7. way (n)	g) acquaint
8. introduce (v)	h) cause
9. sensitive (adj)	i) part
10. focus (v)	j) hurt
11. disease (n)	k) opponent
12. moderation (n)	l) sphere
13. imagine (v)	m) custom

While you watch



How To Improve Memory

D. Watch the video and decide if these statements are True or False.

1. A lack of salt is actually going to hurt your memory.
2. The first way to improve your memory with a good habit is getting enough food.
3. Now, fruits play an important part of your memory.
4. Stress is without question the worst enemy to your memory.
5. Sometimes in the week before the World Football Championship, I would get five massages just to stay relaxed.

E. Watch the video again and circle the words you hear.

1. A dehydrated brain is a brain that won't be able to focus, so that's why drinking plenty of *water/coffee* is so important.
2. Studies have been *disproved/shown* that small amounts of alcohol and maybe having a glass of wine a day *isn't/is* actually good for your memory.
3. When salt is *restricted/excessive*, it can actually hurt your short-term memory.
4. The Mind Palace is essentially when you *create/memorize* a map of a house, you stand in the doorway of the room in your house, and you count 5 pieces of furniture in that room – 1, 2, 3, 4, 5.
5. If you want to start remembering stuff, you have to be able to turn it into a picture and you have to be able to *forget/see* it.
6. If you go overboard and have too much salt, that is bad for your memory and has even been linked to *Parkinson's/Alzheimer's* disease.

After you watch**F. Complete the summary of the video below using these words.**

<i>stuff</i>	<i>habit</i>	<i>crucial</i>	<i>damaging</i>	<i>meditate</i>	<i>improve</i>
	<i>enemy</i>	<i>excessive</i>	<i>technique</i>	<i>stressed</i>	

If you're 1) _____ out because you have a bad memory, I'm going to give you ways to 2) _____ your memory with these good habits. The first way to improve your memory with a good 3) _____ is getting enough sleep. You've heard it said a million times, but it's so true. Without a good night's sleep you're not going to be able to remember the next day. So get at least eight hours of sleep, that six-to-eight-hours window is one of the most 4) _____ areas of sleep.

Stress is without question the worst 5) _____ to your memory. Think about a time in your life when you were stressed out or you were going through a stressful period in your life, your memory was probably horrible.

So to reduce your stress, some people 6) _____; some people just close their eyes and just exhale and clear their mind and have a quiet time.

The hippocampus is a part of your brain that is very sensitive to sugar. Avoid 7) _____ sugar for a better memory.

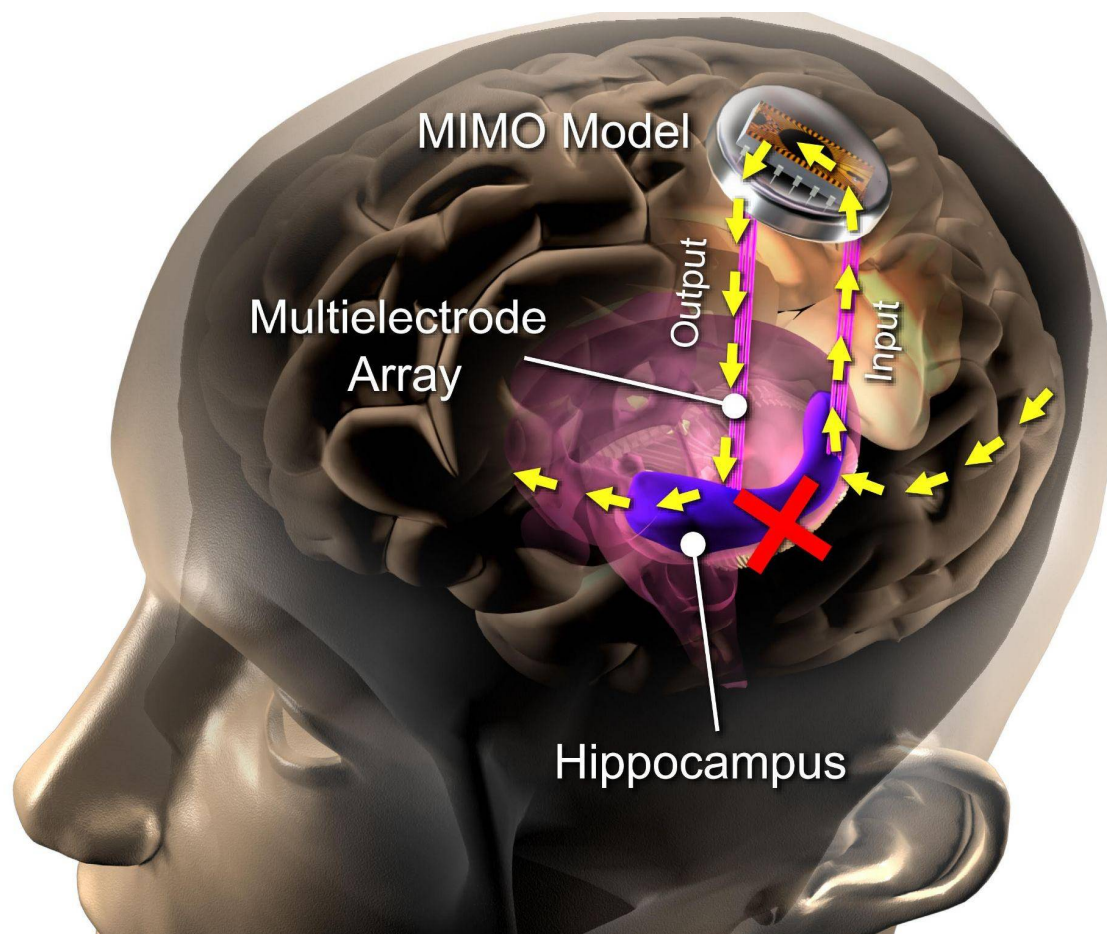
Alcohol hurts your memory in the current short-term memory, but it also has very 8) _____ effects in your long-term memory over time. And the next step is to drink plenty of water. A dehydrated brain is a brain that won't be able to focus, so that's why drinking plenty of water is so important.

So, if you want to start remembering 9) _____, you have to be able to turn it into a picture and you have to be able to see it. You remember what you see more than what you just hear.

The Mind Palace is, without question, my favorite way to improve your memory 10) _____ technique.

Whatever you want to remember, turn it into a picture and your brain is going to remember it much more. You remember what you see more than what you just hear.

Video 2. Uncovering The Brain's Biggest Secret



Before you watch

A. Do you know the answers to these questions?

- What is good for your brain?
- Can brain cells grow back?
- Which brain is more powerful?

B. Study the following definitions and practice them in Quizlet.



[Quizlet Unit 12 Video 2.1](#)

verge (n)	an edge or border
degrade (v)	break down
tissue (n)	any of the distinct types of material of which animals or plants are made, consisting of specialized cells and their products
captivate (v)	capture the fascinated attention of
simplicity (n)	the quality or condition of being easy to understand or do

conjecture (n)	an opinion or conclusion formed on the basis of incomplete information
sketch (v)	make a rough drawing of
stain (v)	colour by applying a penetrative dye or chemical
harden (v)	make or become hard or harder
potassium (n)	the chemical element of atomic number 19
accumulate (v)	gather together or acquire an increasing number or quantity of
hazy (adj)	covered by a haze
linear (adj)	arranged in or extending along a straight or nearly straight line
vast (adj)	of very great extent or quantity; immense
discrete (adj)	individually separate and distinct
cell (n)	the smallest basic unit of a plant or animal
bold (adj)	showing an ability to take risks; confident and courageous
aspiring (n)	directing one's hopes or ambitions toward becoming a specified type of person
highlight (v)	pick out and emphasize
assumption (n)	a thing that is accepted as true or as certain to happen, without proof
densely (adj)	in a closely compacted or crowded manner; thickly
fibrous (adj)	consisting of or characterized by fibers
comprise (v)	consist of; be made up of
convert (v)	cause to change in form, character, or function
angle (n)	the space (usually measured in degrees) between two intersecting lines

C. Match the synonyms and practice them in Quizlet.

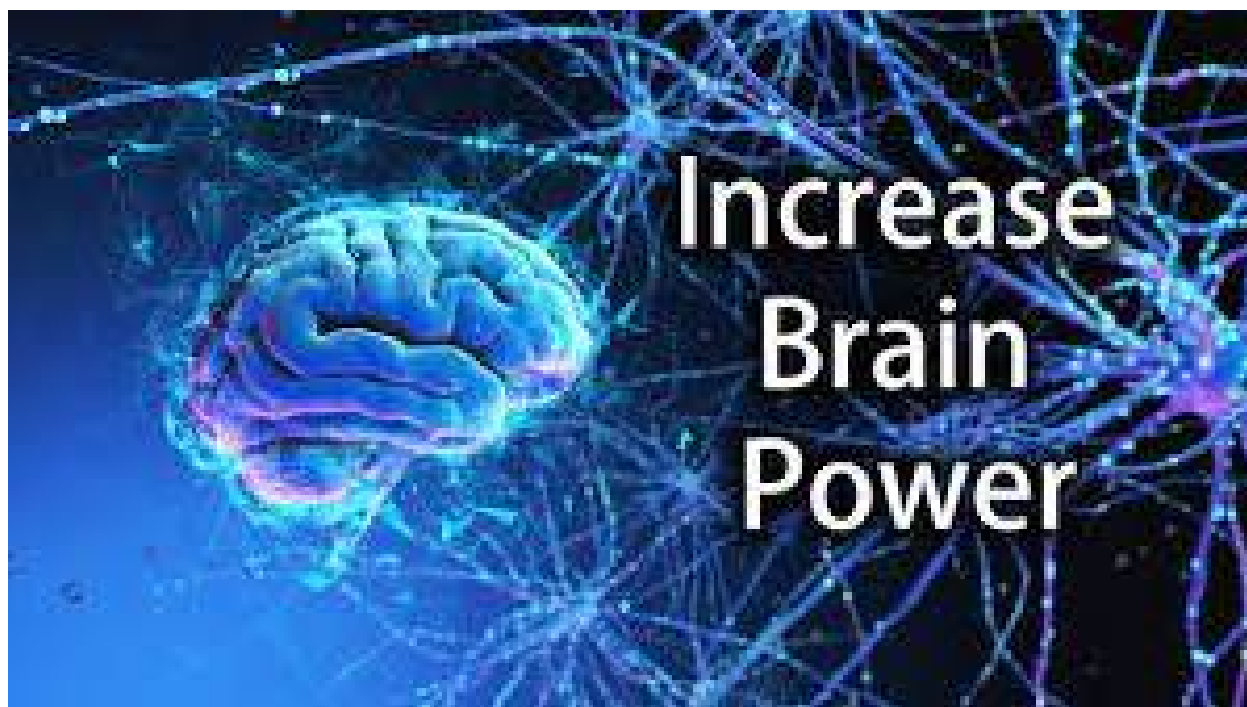


[Quizlet Unit 12 Video 2.2](#)

1. verge (n)	a) ease
2. degrade (v)	b) enthrall

3. captivate (v)	c) destroy
4. simplicity (n)	d) edge
5. conjecture (v)	e) brave
6. sketch (v)	f) separate
7. stain (v)	g) huge
8. harden (v)	h) foggy
9. accumulate (v)	i) strengthen
10. hazy (adj)	j) store
11. vast (adj)	k) dye
12. discrete (adj)	l) outline
13. bold (adj)	m) hypothesis

While you watch



[Uncovering The Brain's Biggest Secret](#)

D. Watch the video and decide if these statements are True or False.

1. Scientists believed they were on the verge of uncovering the brain's biggest secret in the late 1860s.

2. They already knew the brain controlled the body through electrical energy.
3. This idea, called reticular theory, imagined the nervous system as a massive web of tissue that physically connected every nerve cell in the body.
4. Reticular theory captivated the field with its elegant simplicity.
5. Soft nervous tissue was delicate and difficult to work with.
6. And even when researchers were able to get it under the microscope, the brain was so densely packed it was impossible to see much.
7. To improve their view, scientists stop experimenting with special staining techniques designed to provide clarity through contrast.

E. Watch the video again and circle the words you hear.

7. It seemed that perfectly transmitting these *nerves/impulses* would require them to travel uninterrupted along some kind of tissue.
8. After that a helper reads the numbers to Gianni, then Gianni repeats the numbers in the *wrong/correct* order from memory.
9. He has memorized more than 250 *books/researches*.
10. The crucial question is to understand which is the *result/contribution* from heredity and which is the contribution that comes from the environment.
11. Researchers are now studying how memory and learning changed the *brain/body*.
12. If you really need to use your brain capacity to *forget/store* some kind of information, you have this disability and you know it's just a matter of exercise.
13. Since the age of 11/12 he's been training his brain to remember.

After you watch

F. Complete the summary of the video below using these words.

<i>struggled</i>	<i>sketch</i>	<i>conjecture</i>	<i>captivated</i>	<i>reticular</i>
<i>revealed</i>	<i>verge</i>	<i>simplicity</i>	<i>degrading</i>	<i>impulses</i>

In the late 1860s, scientists believed they were on the 1) _____ of uncovering the brain's biggest secret. They already knew the brain controlled the body through electrical 2) _____. The question was, how did these signals travel through the body without changing or 3) _____? It seemed that perfectly transmitting these impulses would require them to travel uninterrupted along some kind of tissue. This idea, called 4) _____ theory, imagined the nervous system as a massive web of tissue that physically connected every nerve cell in the body. Reticular theory 5) _____ the field with its elegant 6) _____.

But soon, a young artist would cut through this 7) _____, and 8) _____ a bold new vision of how our brains work. 60 years before reticular theory was born, developments in microscope technology 9) _____ cells to be the building blocks of organic tissue.

This finding was revolutionary, but early microscopes 10) _____ to provide additional details. The technology was especially challenging for researchers studying the brain.

ADDITIONAL MATERIALS

Video links

Unit 1

[Video 1](#)

[Video 2](#)

Unit 5

[Video 1](#)

[Video 2](#)

Unit 9

[Video 1](#)

[Video 2](#)

Unit 2

[Video 1](#)

[Video 2](#)

Unit 6

[Video 1](#)

[Video 2](#)

Unit 10

[Video 1](#)

[Video 2](#)

Unit 3

[Video 1](#)

[Video 2](#)

Unit 7

[Video 1](#)

[Video 2](#)

Unit 11

[Video 1](#)

[Video 2](#)

Unit 4

[Video 1](#)

[Video 2](#)

Unit 8

[Video 1](#)

[Video 2](#)

Unit 12

[Video 1](#)

[Video 2](#)

Quizlets

Unit 1

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 5

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 9

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 2

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 6

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 10

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 3

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 7

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 11

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 4

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 8

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Unit 12

[Video 1.1](#)

[Video 1.2](#)

[Video 2.1](#)

[Video 2.2](#)

Wordlist

A

abiding	U1	
abnormal	U1	
about	U3	
abroad	U1	
accelerate	U2	
accessible	U5	
accommodate	U5	
accumulate	U12	
accumulator	U9	
achieve	U8	
acquaint	U12	
additional	U7	
admire	U11	
adrift	U1	
advanced	U3	
affluent	U1	
agility	U9	
agitated	U8	
ailment	U2	
aim	U3	
algorithm	U9	
alien	U3	
alteration	U10	
altitude	U8	
alumnus	U11	
amazing	U6	
amber	U2	
ambition	U9	
amount	U12	
ancient	U3	
angle	U12	
animal species	U3	
animal	U3	
annual	U8	
anomaly	U7	
antenna	U10	
antique	U6	
appearance	U4	
applause	U6	

appreciate	U6	
approach	U10	
approximately	U8	
aquifer	U8	
arable	U8	
area	U12	
argue	U9	
arid	U8	
arise	U2	
artificial	U3	
ascend	U11	
ask	U7	
aspiring	U12	
assume	U1	
assumption	U12	
atmosphere	U2	
attend	U11	
aura	U2	
available	U5	
average	U8	
avoid	U12	
awake	U5	
award	U11	
aware	U5	
awesome	U11	
awkward	U6	
awkwardness	U6	

B

back	U10	
ball	U2	
balloon	U8	
ban	U6	
barrage	U9	
barrier	U10	
battery	U9	
bay	U3	
BC	U2	
BCE	U2	
be certain	U7	
be in pain	U4	
be sure	U7	
beast	U3	
being	U5	
benefit	U1	

best-loved	U3	
beverage	U2	
bid	U7	
billion	U6	
biodiversity	U3	
blizzard	U7	
blossom	U5	
boast	U6	
bold	U12	
boom	U10	
boundary	U7	
boundless	U9	
brave	U12	
breakdown	U1	
breathe	U5	
breathing	U4	
breed	U4	
breeding	U4	
broadcast	U1	
bruise	U6	
brutal	U7	
buoyant	U6	
burden	U1	
burner	U8	
bury	U5	
bush	U10	

C

cableway	U3	
cacao bean	U2	
calm down	U4	
Camellia sinensis	U2	
canine	U4	
capacity	U9	
capsule	U8	
captivate	U12	
capture	U10	
cataclysmic	U1	
cause	U12	
cave	U3	
cell	U12	
challenge	U9	
chamber	U5	
champion	U6	
chance	U7	

change	U10	
changeable	U9	
character	U5	
chariot	U6	
chase	U1	
cheer	U6	
cheerful	U6	
chlorophyll	U2	
chocolatier	U2	
choose	U4	
clam	U10	
cleaner	U5	
click	U12	
climate change	U8	
climb	U8	
climbing	U7	
closely	U10	
clumsy	U6	
cluster	U10	
collapse	U1	
collect	U8	
colony	U2	
come	U10	
comfortable	U8	
commemorate	U11	
commitment	U1	
compact	U9	
companion	U7	
compete	U6	
competition	U6	
competitor	U6	
complex	U9	
complicated	U4	
comprise	U12	
concentrate	U12	
concentrate on	U6	
concoction	U2	
condolences	U1	
conjecture	U12	
connection	U10	
conscious	U5	
consequence	U10	
consider	U7	
considerable	U8	
consist	U11	

consume	U2	
contain	U4	
contender	U3	
contest	U6	
contribution	U11	
control	U10	
convert	U12	
converting	U4	
copyright	U11	
cornmeal	U2	
cozy	U8	
crash	U7	
craze	U4	
create	U3	
creature	U5	
crevasse	U7	
critical	U2	
cross	U8	
cruel	U2	
cultish	U1	
cultivation	U2	
culture	U3	
custom	U12	

D

dam	U9	
damage	U5	
dangerous	U6	
data	U7	
deadly	U3	
death	U1	
debatably	U3	
debate	U3	
decade	U1	
decisive	U2	
decline	U5	
decrease	U4	
dedicated	U2	
dedication	U1	
deep	U1	
defeat	U7	
deforestation	U3	
degrade	U12	
delicacy	U2	
delicate	U7	

delight	U11	
demand	U7	
densely	U12	
depict	U11	
depict	U11	
depiction	U3	
descendant	U4	
desert	U8	
desertification	U8	
designate	U10	
destiny	U1	
destroy	U8	
devote	U1	
devoted	U4	
different	U10	
difficult	U7	
dignified	U6	
disastrous	U1	
disclose	U5	
discouraging	U11	
discrete	U12	
disease	U12	
dislocate	U9	
disorder	U4	
displace	U9	
dispute	U9	
disruption	U2	
dive in	U3	
diverse	U10	
diverse	U4	
DNA	U4	
domestication	U4	
dominate	U1	
doorway	U12	
doubt	U11	
downgrade	U1	
drawing	U3	
dregs	U8	
drink	U2	
drinkable	U2	
drive	U6	
drool	U5	
dry	U3	
dual	U6	
due to	U8	

dune	U8	
dye	U12	
dynamic	U9	
E		
ease	U12	
easy	U8	
edge	U12	
effort	U7	
embarrassing	U11	
empty	U3	
encounter	U5	
encourage	U6	
end	U5	
endangered	U4	
endeavour	U1	
endowment	U11	
endure	U7	
enemy	U12	
energy	U9	
engage	U5	
enjoy	U7	
enormous	U8	
ensure	U10	
entention	U9	
enthrall	U12	
enthusiastic	U8	
entice	U6	
entire	U8	
environment	U3	
equal	U8	
equipment	U9	
equitable	U1	
error	U7	
escape	U7	
essential	U7	
establish	U11	
estate	U11	
estimates	U8	
evaporate	U2	
exact	U4	
exceed	U8	
excellent	U4	
excessive	U12	
excited	U8	

exciting	U6
exclusivity	U11
exertion	U7
exist	U11
expansion	U8
experience	U7
expert	U7
explorer	U7
extended	U10
extended family	U1
extra	U7
extract	U10
extraordinary	U8
extremely	U7
extrication	U2

F

facility	U10
fail	U7
fair	U1
faithful	U1
false	U3
fame	U1
fancy	U12
fascination	U6
fashionable	U2
fasten	U10
favorite	U3
feature	U4
fermentation	U2
ferret	U6
fertilize	U8
fibrous	U12
fierce	U2
fight	U6
filter out	U2
fin	U10
final	U8
finish	U5
fire breathing	U3
firm	U1
first of all	U6
fit	U7
fixation	U2
fixing	U2

flap	U10	
flexible	U9	
flood	U9	
flora	U3	
flourish	U3	
flush	U2	
foam	U2	
focus	U12	
focus on	U6	
focus	U11	
foggy	U12	
foolish	U8	
foot	U4	
forbidden	U2	
foremost	U6	
forensic	U11	
forest	U3	
fortunate	U7	
fossil fuels	U9	
foster	U6	
freakish	U1	
fringe	U7	
frostbite	U7	
froth	U2	
fuel	U8	
fulfill	U9	
fund	U11	
furniture	U12	
furry	U4	

G

game	U6	
garden	U5	
gateway	U9	
gear	U7	
generate	U9	
generator	U9	
gentle	U7	
geoglyph	U3	
get across	U8	
get back	U10	
giant	U3	
gigantic	U8	
glacier	U7	
glance	U7	

glide	U10	
global	U1	
gloss	U4	
go up the hill	U8	
goal	U7	
god	U5	
gouge	U6	
grab	U10	
graduate	U11	
grasp	U4	
great	U8	
grid	U9	
grotto	U3	
group	U10	
growing	U2	
guide	U7	

H

habit	U12	
habitat	U3	
hairpin	U10	
handpick	U2	
happen	U7	
hard to foresee	U6	
hard	U7	
harden	U12	
hardship	U1	
hardware	U9	
harsh	U8	
hatchling	U10	
haul	U7	
hazardous	U6	
hazy	U12	
heartfelt	U1	
heartwarming	U5	
herd	U5	
heritage	U10	
hesitate	U11	
highlight	U12	
highly	U7	
hike	U7	
hold	U4	
hollow	U3	
honey-yellow	U2	
honor	U6	

horrific	U2	
household	U1	
housekeeping	U1	
huge	U8	
humanoid	U9	
humid	U8	
hurt	U12	
hydraulic	U9	
hydroelectric	U9	
hypothesis	U12	

I

identify	U4	
illegally	U4	
illness	U12	
illness	U2	
imagine	U12	
imagine	U12	
immediately	U5	
impression	U7	
imprison	U11	
improve	U12	
in action	U4	
inaugurate	U6	
inch	U8	
incline	U10	
increase	U3	
incredibly	U8	
increment	U6	
individuality	U5	
inflammation	U12	
influencer	U11	
inhabitants	U3	
inheritance	U5	
initiation	U5	
injured party	U3	
inner	U5	
inquire	U7	
inquiry	U11	
inside	U5	
inspire	U6	
instinct	U5	
instrument	U4	
intellect	U4	
intelligence	U4	

intersecting	U3	
intertwine	U4	
intimately	U10	
intricately	U10	
introduce	U12	
intuition	U5	
investigation	U11	
invigorating	U2	
isolated	U4	
issue	U8	

J

jade walls	U3	
jet stream	U8	
joint	U9	
journey	U7	

K

kinship	U1	
---------	----	--

L

label	U11	
land	U8	
landmark	U11	
lasting	U1	
lay	U10	
lean	U10	
lease	U11	
lifelong	U1	
limestone	U3	
limitless	U9	
line	U3	
linear	U12	
liquid	U2	
load	U1	
locomotion	U9	
logic	U9	
loincloth	U6	
look quickly	U7	
loyal	U4	
lucky	U7	
luster	U4	

M

magnificence	U10
main	U7
major	U3
mammal	U3
manage	U8
maneuver	U9
mania	U4
man-made	U3
margin	U7
marginal	U1
mark	U11
massive	U7
mast	U10
match	U6
maternity	U5
meetings	U3
memory	U4
mention	U11
merge	U11
Mesoamerica	U2
migrate	U4
mixture	U2
mobile	U9
moderation	U12
modern	U3
moisture	U2
monarchy	U1
montage	U5
mountaineering	U7
mounting	U5
mourn	U1
movable	U9
movement	U9
multiple	U11
mythical	U6

N

natural environment	U3
navigate	U5
nearly	U8
nearness	U4
nickname	U3
no-holds-barred fight	U6

noisy	U11
normal	U8
notable	U5
notice	U11
notification	U11
nuclear family	U1
number	U9
numerous	U11

O

oasis	U8
obstacle	U7
obstruction	U10
obtain	U8
occur	U7
offspring	U4
old	U6
oolong	U2
opponent	U6
optimistic	U6
option	U7
ordinary	U8
originate	U2
outline	U12
outperform	U9
output	U9
outweigh	U9
overpopulation	U4
overseas	U1
oxidize	U2

P

pack	U4
pagan	U6
parkour	U9
part	U12
participant	U6
participate	U6
particle	U8
particular	U9
partner	U7
passing	U1
pattern	U9
pellet	U2
penetrate	U2

penstock	U9	
pentathlon	U6	
perform	U8	
permanent	U4	
Peruvian	U3	
phase	U2	
pick up	U8	
picture	U3	
piddling	U6	
piece	U12	
pilgrim	U3	
pilot	U8	
pinnacle	U11	
piranhas	U3	
pivotal	U5	
place	U5	
plain	U3	
plan	U5	
plant	U3	
plantation	U2	
pleasant	U8	
pleasure	U2	
pledge	U1	
plinter	U10	
plywood	U6	
pollution	U3	
position	U10	
possession	U5	
possibility	U7	
postulate	U3	
potassium	U12	
power	U9	
power plant	U9	
powerful	U4	
prayer	U11	
precise	U4	
predator	U3	
predatory	U10	
predictions	U7	
prematurely	U7	
press	U5	
pressurized	U8	
prevent	U9	
prey	U3	
privation	U1	

privilege	U1	
problem	U6	
process	U2	
produce	U9	
professional	U7	
profit	U11	
profound	U1	
prohibit	U6	
prohibited	U2	
prominence	U1	
promise	U1	
pronounced	U4	
property	U5	
pros and cons	U7	
provide	U10	
proximity	U4	
pseudo	U3	
pseudonym	U3	
pugilistic	U6	
pure	U5	
purpose	U11	
pursuit	U6	
push	U8	

Q

quadrangle	U11	
quality	U11	
quantity	U9	

R

race	U6	
rain	U8	
rainfall	U8	
rainforest	U3	
random	U5	
reach	U8	
realm	U1	
rear	U10	
reason	U12	
reassure	U4	
recent	U1	
recognize	U4	
re-equip	U11	
refer	U11	
refit	U11	

regardless of	U7	
reindeer	U5	
relationship	U1	
relay	U6	
release	U10	
relegate	U1	
relief	U8	
remote	U4	
remove	U3	
renewable	U9	
rent	U11	
replace	U11	
replica	U11	
represent	U11	
reproduction	U4	
research	U7	
researcher	U3	
resemblance	U11	
respectful	U6	
restrict	U12	
return	U10	
reveal	U5	
reverse	U5	
rich	U4	
rig	U10	
rise	U11	
ritual	U3	
rival	U6	
road	U3	
robot	U9	
roll	U10	
roughly	U7	
route	U7	
rowdy	U11	
rugged	U6	
ruin	U8	
rule	U5	
run after	U1	

S

sacrifice	U7	
safely	U7	
safety	U7	
sand hill	U8	
scared	U8	

schedule	U5	
seal	U9	
select	U4	
sensitive	U12	
separate	U12	
service	U1	
set	U11	
settlement	U5	
shame	U5	
shelter	U10	
shift	U2	
ship	U5	
short travel	U7	
shower	U8	
shrub	U10	
sieve	U2	
significant	U7	
significantly	U11	
similarity	U11	
simplicity	U12	
simulation	U9	
sincere	U1	
sketch	U12	
skill	U9	
slam	U6	
slave	U2	
slavery	U1	
sleeping bag	U7	
sleepless	U5	
slightly	U10	
slip	U10	
slobber	U5	
slug	U10	
smash	U3	
smooth	U2	
snowstorm	U7	
software	U9	
solar withering	U2	
solitary	U10	
spar	U5	
special	U3	
species	U2	
speed up	U2	
sphere	U12	
spire	U11	

splendor	U10	
splinter	U10	
split	U10	
spot	U5	
squeeze	U5	
stable	U1	
stain	U12	
stance	U10	
starting point	U7	
statue	U5	
steadfast	U1	
steep	U7	
steer	U10	
step	U2	
stimulant	U12	
stimulate	U6	
stir	U2	
store	U12	
straight	U3	
strange	U3	
strengthen	U12	
strike	U6	
strong	U4	
stunning	U6	
stupid	U8	
submerge	U10	
subscribe	U11	
subset	U7	
substantial	U3	
substantially	U11	
succeed	U1	
successful	U7	
suffer	U10	
suggest	U3	
suit of armor	U6	
summit bed	U7	
superb	U4	
supernatural being	U6	
supply depot	U7	
support	U1	
surface	U10	
surpass	U9	
surround	U10	
survival	U5	
survive	U11	

suspicion	U5	
sustain	U6	
sustainable	U9	
swabber	U5	
T		
tack	U10	
tactful	U12	
take air	U5	
target	U8	
team	U8	
tear	U2	
temperance	U12	
template	U9	
tender	U7	
tentacle	U10	
terrain	U6	
terrified	U8	
terrifying	U2	
testify	U1	
therapy	U4	
threat	U1	
thrilled	U8	
thrive on	U7	
tissue	U12	
tool	U4	
top	U11	
touching	U5	
tough	U6	
tournament	U6	
tradition	U1	
traditional	U1	
trait	U4	
trampoline	U6	
transactional	U1	
transfer	U2	
transform	U9	
transformation	U4	
transport	U3	
treat	U2	
tropical forest	U3	
trunk	U4	
try	U8	
tumble	U2	
turbine	U9	
tusk	U4	

U

ultimate	U8
ultimate	U8
unchangeable	U1
unconditional	U1
undertake	U1
underway	U4
unerring	U1
unfair	U11
unfortunately	U5
unimpeded	U6
unique	U1
unjust	U11
unluckily	U5
unmistakable	U1
unpredictable	U6
unsafe	U6
unswerving	U1
untimely	U5
unusual	U8
unwrap	U2
uphold	U1
upstream	U9
upwind	U10
usefulness	U4
utility	U4

V

valley	U3
valve	U9
vaporize	U2
variant	U7
varied	U4
vast	U12
vault	U9
vegetation	U3
vehicles	U3
venture	U7
verge	U12
version	U7
veterinary	U4
victim	U3
victor	U6
Victorian era	U1

vision	U9	
visit	U11	
vital	U1	
volatile	U9	
volume	U9	
vulnerable	U4	

W

ward	U5	
ware	U2	
waterfalls	U3	
way	U7	
weaken	U10	
wealthy	U1	
wet	U8	
winner	U6	
without trouble	U7	
wonderful	U6	
wood	U3	
work on	U2	
worldwide	U3	
wrap	U10	

Y

yield	U9	
-------	----	--

Z

zorb	U6	
------	----	--

Transcripts

Unit 1 Video 1

King Charles III's address to the nation and Commonwealth

I speak to you today with feelings of profound sorrow. Throughout her life, Her Majesty the Queen – my beloved Mother – was an inspiration and example to me and to all my family, and we owe her the most heartfelt debt any family can owe to their mother; for her love, affection, guidance, understanding and example.

Queen Elizabeth's was a life well lived; a promise with destiny kept and she is mourned most deeply in her passing.

That promise of lifelong service I renew to you all today.

Alongside the personal grief that all my family are feeling, we also share with so many of you in the United Kingdom, in all the countries where the Queen was head of state, in the Commonwealth and across the world, a deep sense of gratitude for the more than 70 years in which my mother, as Queen, served the people of so many nations.

In 1947, on her 21st birthday, she pledged in a broadcast from Cape Town to the Commonwealth to devote her life, whether it be short or long, to the service of her people.

That was more than a promise: it was a profound personal commitment, which defined her whole life.

She made sacrifices for duty. Her dedication and devotion as sovereign never wavered, through times of change and progress, through times of joy and celebration, and through times of sadness and loss.

In her life of service, we saw that abiding love of tradition, together with that fearless embrace of progress, which make us great as nations.

The affection, admiration and respect she inspired became the hallmark of her reign. And, as every member of my family can testify, she combined these qualities with warmth, humour and an unerring ability always to see the best in people.

I pay tribute to my mother's memory and I honour her life of service. I know that her death brings great sadness to so many of you and I share that sense of loss, beyond measure, with you all.

When the Queen came to the throne, Britain and the world were still coping with the privations and aftermath of the Second World War, and still living by the conventions of earlier times.

In the course of the last 70 years, we have seen our society become one of many cultures and many faiths.

The institutions of the state have changed in turn. But, through all changes and challenges, our nation and the wider family of realms – of whose talents, traditions and achievements I am so inexpressibly proud – have prospered and flourished. Our values have remained, and must remain, constant.

The role and the duties of monarchy also remain, as does the sovereign's particular relationship and responsibility towards the Church of England – the

Church in which my own faith is so deeply rooted.

In that faith, and the values it inspires, I have been brought up to cherish a sense of duty to others, and to hold in the greatest respect the precious traditions, freedoms and responsibilities of our unique history and our system of parliamentary government.

As the Queen herself did with such unswerving devotion I too now solemnly pledge myself, throughout the remaining time God grants me, to uphold the constitutional principles at the heart of our nation.

And wherever you may live in the United Kingdom, or in the realms and territories across the world, and whatever may be your background or beliefs, I shall endeavour to serve you with loyalty, respect and love, as I have throughout my life.

My life will of course change as I take up my new responsibilities. It will no longer be possible for me to give so much of my time and energies to the charities and issues for which I care so deeply. But I know this important work will go on in the trusted hands of others.

This is also a time of change for my family. I count on the loving help of my darling wife, Camilla. In recognition of her own loyal public service since our marriage seventeen years ago, she became my Queen Consort. I know she will bring to the demands of her new role the steadfast devotion to duty on which I have come to rely so much.

As my heir, William now assumes the Scottish titles which have meant so much to me. He succeeds me as Duke of Cornwall and takes on the responsibilities for the Duchy of Cornwall which I have undertaken for more than five decades.

Today, I am proud to call him Prince of Wales, Tywysog Cymru, the country whose title I have been so greatly privileged to bear during so much of my life and duty.

With Catherine beside him, our new Prince and Princess of Wales will, I know, continue to inspire and lead our national conversations, helping to bring the marginal to the center ground where vital help can be given.

I also want to express my love for Harry and Meghan as they continue to build their lives overseas.

In a little over a week's time, we will come together as a nation, as a Commonwealth and indeed a global community, to lay my beloved mother to rest. In our sorrow, let us remember and draw strength from the light of her example. On behalf of all my family, I can only offer the most sincere and heartfelt thanks for your condolences and support. They mean more to me than I can ever possibly express.

And to my darling Mama, as you begin your last great journey to join my dear late Papa, I want simply to say this: thank you. Thank you for your love and devotion to our family and to the family of nations you have served so diligently all these years.

May "flights of Angels sing thee to thy rest".

Unit 1 Video 2***How the Nuclear Family Broke Down***

It's an image that has been etched in our minds: a family is a married couple with two-and-a-half kids. But today only a minority of American families are traditional two-parent nuclear families.

D.B.: "We're in a moment of cultural lag. We have an old archaic idea of what family is. It existed in this one freakish moment of history between 1950 and 1965".

So how did the nuclear family fail and what do modern families actually look like? This is David Brooks. He wrote this Atlantic cover story about the history of the family in America.

D.B.: "Through most of history as a family was an economic unit it was for making the farm work".

In 1875, 75 percent of American workers were farmers and most of the other 25% worked in small family businesses. In the south, of course, slavery separated many black families. But across most of society people lived in big extended families".

D.B.: There were uncles, nieces, nephews around. If a relationship failed, if somebody died, there were plenty of other people to pick up the slack".

During the Victorian era the family reached its peak in the US and Britain. "I hope you are behaving very well".

D.B.: "The number of people who lived in extended families was higher in the Victorian era than ever before or ever since. The world that people had known was falling away and they felt not only economically under threat, they felt morally under threat".

So, the extended family functioned as a moral unit. In it children were taught right from wrong and traditional values were preserved. Then as factories opened in big US cities in the late 19th and early 20th centuries, young people left home to chase the American dream. The families they started were nuclear families. By 1960 the nuclear family dominated. Nearly 78 percent of children were living in one.

D.B.: "You had what they called a cult of togetherness. There was tremendous social pressure to live in one of these nuclear families".

But the conditions for its success were very particular to the post-war era.

D.B.: "Everything conspired to make the nuclear family stable and possible. Wages went way up, so you had men who could have a single earning household, women were relegated to household. You had high union membership, high church attendance, high social trust."

("These independent people spend the profit from their labor to maintain the highest standard of living in the nation").

D.B.: "By 1965 that was over and the stable cultish nuclear families of the 1950's have been replaced by the distressed families of every decade since."

Over the past half century, the share of people living alone in America has doubled. People are marrying later and divorcing more. The general fertility rate is dropping. And the stress from this change has fallen disproportionately on less affluent households who must perform all the work that was once done by members of an extended family. This burden isn't evenly distributed. Women still spend

significantly more time on housework and childcare according to recent data.

D.B.: “Affluent people can afford to buy extended family. The switch from an extended family who detached nuclear family has been great for those who are privileged. It's given us way more freedom. It's been sometimes cataclysmic for those who aren't”.

But around the globe 38 percent of people still live in extended family units.

D.B.: “In Gambia the average household size is 13.7 people”.

In Mexico many live within kinship groups of up to 70 people. There are disadvantages to the extended families of the past.

D.B.: “Sometimes you're never alone, you don't get a lot of privacy. And in the old days, one of the disadvantages of extended family, the women were stuck in the kitchen cooking for 25 people and they had real downsides. The most interesting trend of the past few decades is the creation of chosen families. And this phenomenon really came to prominence in the 1980s in San Francisco in the gay and lesbian community. People who have been cast adrift by the breakdown of the nuclear family, they've lost touch with one or both parents. They're sort of floating, and they come together. And say you know we'll be a family together.”

A chosen family can help to share the challenges and the rewards of modern life. And make it more equitable.

D.B.: “We need to extend love to others and if we don't have a chance to do that something goes really wrong. A family is a place where you offer care, you offer unconditional love. The bond between you is no longer transactional, no longer even voluntary. And we're seeing that spread not just in biological ways but in a non-biological way too. It's one of the more hopeful things I see in society”.

Hi! It's David Brooks. Thank you for watching and I hope you read my piece and if you want to experience other fine conversations of this sort go to YouTube. Subscribe to the Atlantic Channel and do it right away.

Unit 2 Video 1

The History of Chocolate

If you can't imagine life without chocolate, you're lucky you weren't born before the 16th century. Until then, chocolate only existed in Mesoamerica in a form quite different from what we know. As far back as 1900 BCE, the people of that region had learned to prepare the beans of the native cacao tree. The earliest records tell us the beans were ground and mixed with cornmeal and chili peppers to create a drink – not a relaxing cup of hot cocoa, but a bitter, invigorating concoction frothing with foam.

And if you thought we made a big deal about chocolate today, the Mesoamericans had us beat. They believed that cacao was a heavenly food gifted to humans by a feathered serpent god, known to the Maya as Kukulcan and to the Aztecs as Quetzalcoatl. Aztecs used cocoa beans as currency and drank chocolate at royal feasts, gave it to soldiers as a reward for success in battle, and used it in rituals.

The first transatlantic chocolate encounter occurred in 1519 when Hernán Cortés visited the court of Moctezuma at Tenochtitlan. As recorded by Cortés's lieutenant, the king had 50 jugs of the drink brought out and poured into golden cups.

When the colonists returned with shipments of the strange new bean, missionaries' salacious accounts of native customs gave it a reputation as an aphrodisiac. At first, its bitter taste made it suitable as a medicine for ailments, like upset stomachs, but sweetening it with honey, sugar, or vanilla quickly made chocolate a popular delicacy in the Spanish court. And soon, no aristocratic home was complete without dedicated chocolate ware.

The fashionable drink was difficult and time consuming to produce on a large scale. That involved using plantations and imported slave labor in the Caribbean and on islands off the coast of Africa. The world of chocolate would change forever in 1828 with the introduction of the cocoa press by Coenraad van Houten of Amsterdam. Van Houten's invention could separate the cocoa's natural fat, or cocoa butter. This left a powder that could be mixed into a drinkable solution or recombined with the cocoa butter to create the solid chocolate we know today. Not long after, a Swiss chocolatier named Daniel Peter added powdered milk to the mix, thus inventing milk chocolate.

By the 20th century, chocolate was no longer an elite luxury but had become a treat for the public. Meeting the massive demand required more cultivation of cocoa, which can only grow near the equator. Now, instead of African slaves being shipped to South American cocoa plantations, cocoa production itself would shift to West Africa with Cote d'Ivoire providing two-fifths of the world's cocoa as of 2015. Yet along with the growth of the industry, there have been horrific abuses of human rights. Many of the plantations throughout West Africa, which supply Western companies, use slave and child labor, with an estimation of more than 2 million children affected. This is a complex problem that persists despite efforts from major chocolate companies to partner with African nations to reduce child and indentured labor practices.

Today, chocolate has established itself in the rituals of our modern culture. Due to its colonial association with native cultures, combined with the power of advertising, chocolate retains an aura of something sensual, decadent, and forbidden. Yet knowing more about its fascinating and often cruel history, as well as its production today, tells us where these associations originate and what they hide.

So, as you unwrap your next bar of chocolate, take a moment to consider that not everything about chocolate is sweet.

Unit 2 Video 2

How It's Made: Tea

NARRATOR: After water, tea is the most consumed beverage in the world. The different types are determined by the degree to which the producer lets the harvested leaves oxidize before drying them. Green tea, for example, is barely fermented, whereas black tea is greatly fermented. Oolong falls somewhere in between.

In Chinese, oolong means black dragon. It's a semi-oxidized tea fermented more than green tea, yet less than black tea. Its taste, aroma, and color, from light yellow to dark red, vary according to how the tea leaves are processed. This amber oolong produced in Thailand has a rich, smooth roasted taste.

Like most teas, oolong is made from the leaves of a flowering plant species called *Camellia sinensis*. Harvest time is during the plant's peak growing season, which in Thailand is from May to November. Workers handpicked what's known as the flush: a grouping of two young leaves and a bud, which grows out the top of the plant. At this time of year, the plant produces a new flush every seven to 15 days.

An experienced tea master directs every phase of the process, the first step of which is called solar withering. Workers bring the leaves into a glass roofed building then spread them out in the sun for 15 to 20 minutes. This kick starts the oxidation fermentation process, as the chlorophyll enzymes inside the wilting leaves start breaking down. At the same time, the moisture inside begins evaporating. Workers keep moving the leaves around to ensure a thorough exposure to the sun.

Then they gather up the leaves for step 2, indoor withering. The leaves lie on bamboo trays for six to eight hours, where gently stirred every two hours, they oxidize further.

Step 3, disruption. The leaves go into a rotating drum. As they tumble, they bruise and tear. This breaks down the cell structures enabling oxygen to penetrate deep inside, greatly accelerating fermentation. This also releases the leaf juices which helps throw out the taste of the tea.

When the tea master determines the leaves have sufficiently oxidized, they stop the oxidation process by tumbling the leaves and a gas heated dryer for 10 to 15 minutes. This fourth step of the process is called fixation, because it fixes the oxidation at the desired level, which can be anywhere from 8% to 85%, depending on the variety of oolong in production. This is the most critical part of the process, because it determines the tea's taste, aroma, and color.

The next step forms the tea leaves into tiny pellets. First, workers shake the leaves on a sieve to filter out the dust-like particles. Then they bag the leaves in a cotton cloth and place them first in a kneading machine then afterward in a rolling press. Kneading and rolling the back twists the leaves inside into tiny pellets. Forming these pellet shapes intensifies the flavor of the tea, and when the tea is steeped in hot water, releases that flavor slowly. They repeat the sieve, kneading, and rolling cycle up to 35 times until the tea master is satisfied with the result.

Then and only then does the final step begin. Firing. They transfer the tea to an oven in which it undergoes three drying cycles of 20 minutes each at a temperature of approximately 210 degrees Fahrenheit. This dries the damp tea, reducing the moisture content to the target level of less than 5%. The firing also brings out the fragrance.

The traditional way to brew oolong is in a clay teapot, using about 2 teaspoons of tea per cup. Ideally, the water should be 190 to 210 degrees Fahrenheit. Steeping time is from 3 to 10 minutes, and you can brew the same leaves up to five times.

Unit 3 Video 1

Nazca Lines: Peru's Mysterious Geoglyphs

The Nazca lines are located in the peruvian coastal plain some 250 miles south of Lima. The Nazca lines are a massive collection of geoglyphs created by the ancient Nazca people of South America approximately thirteen hundred to two

thousand years ago. Taken as a whole there are more than eight hundred straight lines on the coastal plain some as long as 30 miles including rectangles, trapezoids, zigzags and spirals along with 70 animal and plant depictions, many measuring 1200 feet in length. Others appear human-like including one that has been nicknamed the Astronaut leading pseudo-archaeologists in the 1960s and 70s to postulate that the giant rock drawings are the result of an advanced alien culture who paid a visit to the nazca people.

Located in the desert plains of the Rio Grande del Nasco river basin – one of the driest places on earth the Nazca lines cover an area of 7 500 hectares all created by a culture that flourished from 100 BC to 700 a.d. Covered in a layer of iron oxide coated pebbles of a deep rust color it's thought that the Nazca people created their massive geoglyphs by removing the top foot or so of rock thereby exposing the lighter colored sand beneath most likely beginning with the small scale pre-construction model before increasing the size and scope into what can be seen today.

Researchers have long debated the purpose for these massive geoglyphs including an homage to the gods above in hopes of sending rain to such an arid bone-dry region. In 2015 during a presentation before the 80th annual meeting of the society of american archaeologists, researchers argued that the purpose of the Nazca lines morphed over time. Initially researchers argued pilgrims heading to peruvian temple complexes used the geoglyphs as a ritual processional road or roads while later groups of nazca people smash ceramic pots on the ground at the intersecting points between adjoining lines most likely as part of a religious rite.

In 2018 peruvian archaeologists announced the discovery of 50 more geoglyphs previously unrecorded and unknown. After they used drone technology to map the landmarks in greater detail making the nazca lines one of the ongoing mysteries of ancient man. and there you have it.

Unit 3 Video 2

Seven Wonders of Nature

Welcome to our second video in a new series focusing on the publicly voted on New7Wonders. Last week's video covered man-made wonders, while this video covers wonders that are created naturally. This was an internet poll that concluded in 2011, with over 100 million votes worldwide. So remember, people voted, which means you may disagree and I didn't create this list so don't get mad at me when your favorites aren't here. These are presented in no particular order, let's dive in.

We begin with what's debatably the largest river in the world, The Amazon, which counts both the River itself and the Rainforest. The river runs almost the entire width of South America, crossing through Peru, Bolivia, Venezuela, Colombia, Ecuador, and Brazil. I say it's debatably the longest because the true start and end points of the river are debated, which may or may not make it longer than the other contender, the Nile River. The rainforest that follows this river is known for its biodiversity, with one in ten animal species living in the rainforest. For birds, it gets crazier, with 1 in 5 species living in the rainforest. This is also an incredibly deadly environment, including piranhas, anacondas, poison dart frogs, electric eels, and large mammals such as jaguars. This land has been a victim of deforestation, with

nearly 17% of the forest destroyed by 2018.

We now visit Vietnam and Halong Bay. This bay is home to over 1,600 islands, created by rising limestone from the water. Some islands are large and occupied, with hotels and homes and tourism attractions. Other islands are small, and some are even hollow, with intricate caves and grottos. The mythological origin story is that dragons were sent to assist the villagers against invading ships, so the dragons spit forth jade walls to protect the people. While there's 1,600 islands, only about 40 have people living on them.

Next up is Jeju Island in South Korea, housing the highest mountain in South Korea, an active volcano. The volcano erupted about 2 millions years ago, creating the island as we know it, now flush with forests. In all of South Korea, this island is the only self-governing province, meaning it is run by the locals, not the larger South Korean government. Almost 700,000 people live on this island, with a native language that is also distinct from the rest of South Korea. The economy on this island is focused heavily on tourism, though many outside businesses buy up land and build there, so it's also a negative factor for the locals that attempt to run their own businesses.

We now head to South America, to the border of Brazil and Argentina, Igauzu Falls. This series of waterfalls is the largest waterfall system in the world, flowing through Brazil but falling into Argentina. There are tourist attractions on both sides of the border in which to witness the falls. To limit pollution, they focus now on using high occupancy vehicles including 72-passenger double-decker buses to bring people in from remote parking. If this site looks familiar, it may be because it was used as a location, before being digitally altered, in 2018's Black Panther film.

Now to the Philippines, to the Puerto Princesa Subterranean River, a river which enters a mountain range and includes a variety of underground caves and river channels. It's incredibly difficult to explore, so some areas are completely uncharted. The underground section is about 5 miles long and holds some of the largest cave rooms in the world. There's also a wide variety of animal life in and around this river, including many bats, pigs, and my favorite animal in the world, the Binturong.

Speaking of animals, let's head to our next site, Komodo Island in Indonesia. This is the primary habitat of the Komodo dragon. There are human inhabitants on this island, about 2,000 in total. Originally, tales of these dragons included fire breathing and many monster-like qualities, but Dutch explorers in the early 1900s found and studied them, deciding they were a type of Monitor, another large lizard. They were almost immediately declared a protected species, given their unique and limited habitat. Their massive size is attributed to there being no other predators on these islands, only praying for them to feed on.

Our last natural wonder is Table Mountain in South Africa, a massive table-like mountain that overlooks Cape Town. It's popular to either hike to the top or to use a cableway that can take them to the top. At the top of this range, there is substantial life, including massive vegetation and a variety of wildlife, making this location feel like a whole new world.

And that's it for our natural wonders. The New7Wonders Foundation did a third voting campaign and it'll be next week's video, focusing on seven important cities,

voted by the public for these city's innovation and accomplishments. If it's been longer than a week, you'll see that video here, otherwise we'll see you next Wednesday! Thanks for watching!

Unit 4 Video 1

A Brief History of Dogs

Long before we raised livestock and grew crops, humans lived side by side with dogs. It's widely accepted among scientists that dogs are descendants of wolves. In fact, their DNA is virtually identical. But how exactly did a fierce wild animal become our loyal companion? According to DNA analysis, the transformation from wolf to dog began some twenty to forty thousand years ago when people and wolves were living and hunting in close proximity. By about fifteen thousand years ago dogs were found virtually everywhere people were. But humans may not be able to take all the credit for domestication. Some wolves were already less fearful of approaching people. Those individuals became favored by people for their tame ability. Over many generations, they became tamer and lost some of their predatory qualities such as big sharp teeth. What resulted was the dog, the very first domesticated animal.

Thousands of years later humans began to play a more active role in the breeding of dogs. The ancient Egyptians may have been the first to breed dogs for specific uses such as hunting, guarding and war. In ancient China dogs were bred to look like lions, an important symbol of the Buddhist faith. Selective breeding eventually gave rise to many different looking dogs or pure breeds. And the 18th century purebred dogs were becoming more of a status symbol among wealthy households. By the 19th century the crossbreeding craze was underway culminating in the first dog shows by mid-century. Humans were mixing and matching dogs no longer just for their utility but also for their appearance. Today we have over 300 different breeds making dogs the most diverse species on earth.

But by breeding offspring that exhibit only the most pronounced traits some say we've gone too far. In some cases, dogs are the ones that suffer with genetic disorders in certain breeds that can lead to problems such as difficulty breathing, hip dysplasia, and increased risk of cancer.

Yet for all the problems we've introduced into our canine companions we've also found ways to bring dogs into our lives more than ever before. Dogs today live among us not just as our pets but also as therapy dogs, search-and-rescue dogs, and even war dogs. Humans have also found ways to give back to our furry friends. With advancements in veterinary, medicine and establishing rescue organizations to help dogs find good homes. In many ways the canines that once lived only among their own packs, tens of thousands of years ago have come to depend on us as much as we depend on them.

Unit 4 Video 2

Elephants 101 | Nat Geo Wild

You might already know that elephants are large and majestic but the extent of their size and intelligence may surprise you. Elephants are the largest living land animal. On average, African elephants are about ten feet tall at the shoulder and

weigh up to 18,000 pounds. The largest elephant in recorded history however was 13 feet tall and weighed about 24,000 pounds.

To sustain this massive size, an adult elephant has to consume an enormous amount- up to 50 gallons of water and about 220 pounds of food, or approximately 70,000 calories every day. Elephant size however ends up restricting their movement. While they can walk and swim, elephants are one of the few mammals that can't jump! Their legs are too slender to propel their enormous weight upward. Plus, elephants don't have any spring in their legs since they stand on their toes.

Elephants are intelligent creatures. One sign of their intellect is their ability to recognize themselves in a mirror. The only other animals capable of doing this are humans, great apes, dolphins, and Magpies. Intelligence is also found in elephant's ability to problem-solve with tools but probably the most well-known form of elephant intelligence is their superb memory. As they migrate from place to place throughout their lives, elephants can remember locations of water sources along their migration routes.

Elephants are the only living animals with long trunks. Trunks which are a combination of a nose and upper lip can be heavy and powerful. They contain about 150,000 muscle units and can weigh nearly 300 pounds! While an elephant's trunk can lift objects nearly twice its size, it's also adept at picking up small objects. Flap-like projections on the end of a trunk are precise enough to pick up individual berries or leaves. Outside of grasping, elephants also use their trunks to greet and reassure one another. They may intertwine their trunks or touch the face of other elephants to show affection.

Elephant tusks are essentially giant teeth. Much like human teeth, elephant tusks are made of a material called dentine. The major difference is that elephant dentine has a diamond pattern that makes it super strong and gives it luster. Young elephants even go through a set of baby teeth but theirs include baby tusks. They fall out after about a year and are replaced with a permanent set that can grow 6 feet long and weigh 50 pounds each.

Unfortunately, elephants have been illegally hunted for their tusks. Demand for ivory products which are made from tusks has caused elephant populations to decline.

African elephants are not endangered but their Asian cousins are. African elephants are listed as vulnerable. Some countries in southern Africa are even experiencing an overpopulation of African elephants. Asian elephant populations have decreased immensely. The species habitat once stretched across Asia from Syria to northern China. But today they only exist in isolated pockets between India and Indonesia. Habitat fragmentation, poaching for ivory, and conflict with local farmers are all factors that put elephant populations at risk.

But by studying the complicated nature of conservation, we can come closer to finding a way that both people and elephants with their exceptional intelligence and larger than life presence can peacefully coexist.

Unit 5 Video 1***The History of Balmoral Castle***

Balmoral Castle has been a part of the Royal Family history for centuries. This castle was specially loved by Queen Elizabeth II. What's the history of this famous castle, when was it built? Balmoral Castle is located in Scotland and it was the estate where Queen Elizabeth II passed away on September 8th, 2022. Prior to this time the Queen spent her summer in the Balmoral Castle every year. It is a place where members of the Royal Family can relax and have a good time just like every other regular family in the United Kingdom. Unlike the normal official members of the Royal Family get to eat lunch outdoors at the Balmoral Castle and also engage in expeditions.

Balmoral Castle is one of few places where Queen Elizabeth could be seen riding horses or driving a Range Rover. Other members of the family are not left out either as Tony Blair reported that Prince Philip often makes the grill himself while his wife Queen Elizabeth takes care of the dishes. In the documentary "The Queen at 90" Princess Eugenie revealed that she thinks her grandmother Queen Elizabeth is happier when she's at Balmoral Castle. The Queen's granddaughter noticed that the Queen loved the Highlands. She added that "It's a lovely base for Granny and Grandpa, for us to come and see them up there, where you just have room to breathe and run." Eugenie says that there were always "walks, picnics, dogs – a lot of dogs, there're always dogs – and people coming in and out all the time."

There are 150 buildings in the 50 000 acre estate, but going back in history, the royal castle did not start out like that as at 1390. There was already a structure on the land, but it was not yet a property of the Royal Family at the first encounter. This property belonged to any member of the Royal Family, since Queen Victoria visited Scotland with her husband Prince Albert in 1842. Queen Victoria immediately fell in love with the Highlands. Later in 1852 Prince Albert bought the property for the Queen as a gift from the Farquharson family to accommodate the large family. The magnificent residence was constructed on the land in 1856 and the old building was destroyed. One of the regular autumn visits of Queen Victoria she showed her support for the construction by laying the foundation stone on the 28th of September, 1853. Prince Albert assumed ownership of Balmoral Castle in autumn of 1852. The Prince paid 32000 pounds in total for the property at this time. There were other estates close to Balmoral Castle such as Burke Hill Estate and Abergeldie Castle. These estates were also bought and a purchased cairn was built in the hills close to the estate. The main rooms were southwestern side while the service wings were on the north eastern side of the building. Since the property was initially acquired by Prince Albert.

Balmoral Castle belongs to the monarch and not to the Crown Estate. This means that the revenues generated by the estate are not credited to the Parliament or the public account notable activities. Several notable events have taken place in this famous castle. The granddaughter of Queen Victoria, Eugenie, was born in 1887 at Balmoral Castle. She later became the Queen of Spain when she got married to King Alfonso. The new monarch King Charles and his first wife Princess Diana had their honeymoon at Burkhardt lodge in Balmoral Castle. The children of Princess Diana,

Prince Harry and Prince William, got to know about the untimely death of their mother in the same place in 1997. More recently in 2022 Queen Elizabeth appointed the new Prime Minister Liz Truss at Balmoral Castle. This raised a lot of suspicions about the health of the Queen because an event of such magnitude normally takes place at Buckingham palace in London. Two days after appointing Liz Truss as Prime Minister Queen Elizabeth II died at the age of 96.

The Peculiar Design And Structure of The Estate.

This centuries-old castle was designed by John and William Smith, who were both from Scotland. However, the Prince played a major role in the architecture of the building by adding some significant changes to the designs of both father and son. As a result of the influence of Prince Albert the Balmoral has qualities of both. The Scottish and German structures. Local granite was used in constructing the building. It is divided into two major parts and each part has a courtyard in the middle. One of the features, that's almost impossible to miss, is the 80 feet tall clock tower from Aberdeen. The Balmoral Castle is about 50 miles from Ballater. It is nine miles away the estate is situated near the river Dee and is 926 feet above sea level. According to the historic environment of Scotland, Balmoral Castle is a category of building which includes gross moors, herds of deer, farmlands, cattle and sheep.

Over the years more structures were added to Balmoral Castle before the death of Prince Albert. He made sure there were new plantations close to the house and also established a model dairy, which was later completed by Queen Victoria after his death, exotic conifers were also planted. King George V added formal gardens to the southern part of the castle. Prince Philip made some improvements to the garden by adding a water garden, a glorious statue.

There are many relics from Queen Victoria and Prince Albert's time in Balmoral because it was a favourite of Victoria's. As well, one of them is a noble statue of her favourite Collie, who passed away at the age of 16, along with other sculptures honoring significant characters in her life including Prince Albert and Queen Victoria's personal attendant John Brown. The life-size statue is situated on the grounds. Other prominent servants honored on headstones of Kathy Church are Mr. Brown, Francis Clark, William Thorpe and John Spong. Queen Victoria added several cottages to the property. Albert, the husband of Queen Victoria, had further ideas for land once. The main mansion was finished. Unfortunately, he passed away before his vision could be realized but Victoria carried out his wishes by building more homes on the estate over the years. As a result, now reportedly a hundred and fifty structures in total. On the estate she constructed Bail Nakoyal for her servant, the Garden Cottage for her children and the Kareem Cottage for her Indian secretary.

According to reports Prince William, Kate and their children visited the estate in 2019 and stayed in Tam Nagar, a three-bedroom house. Prince Charles and Princess Camilla owned Burkhill, one of the cottages, at Balmoral when the Queen mother passed away in 2002. The former received the estate as an inheritance after the couple's honeymoon in 2005.

The Red Squirrels

The red squirrels are only the creatures that get to share the residence with the Royal Family. There're a group of endangered species that are native to Scotland.

Although the numbers of these squirrels are declining. Some of them can still be found in Balmoral. King Charles has a soft spot for these squirrels and he often allows them to run around his home in Burke Hall. Prince William once stated that his father loved the squirrels so much that he even went as far as giving the animals names. King Charles also happens to be the patron of red squirrels. Survival trust, in addition, there is a picture of the castle on the reverse side of the hundred pound note released by the Royal bank of Scotland.

The Balmoral test is absolutely a real thing, if you are successful in getting your own invitation to visit Balmoral, You should be aware that the Windsors will be watching you closely. And it is crucial to be aware of the specifics of the house just like Princess Diana and Margaret Thatcher in the Crown. As Royal biographer Omid Scoby states they call it the Queen's Balmoral test, but I would call it more of a royal initiation for those who successfully navigate in social minefield. Popularly known as the Balmoral test are accepted by the Royal Family, the ones who fail vanish from Royal favour as quickly as highland mists come and go.

How to visit Balmoral Castle? Tourists are not allowed when the members of the Royal Family are in the estate. However, it is open to visitors and tourists during winter. So you can get an audio tour and parking at an affordable cost. All you have to do is head straight to the official website to schedule. A visit to make your tour even more exquisite. You can book for a cottage, you do not need to worry about accommodation, either as the accommodations are available throughout the year. Have you ever visited the Balmoral Castle? Which part of its history is most touching to you. Share your thoughts in the comments section below. Did you enjoy watching this video? Thanks for watching and see you in the next video.

Unit 5 Video 2

The Remote Visa – Free Island at the Top of the World

We're literally at the edge of the world and everyone here is a guest. Places outside are ruled by men, here are ruled by nature. I'll be here for eight years in Svalbard. I come from the south of Brazil and I'll be working as a photographer, videographer. We had a friend who was living in Svalbard and working here. And she told me, "You have to come and you also don't have a visa to work here and it's easier to work in Svalbard for you". I think after six months I realized that I was in love with the place. The first six months I was too scared.

So this is longer than visits to the capital of Svalbard. You and a half thousand people, 51 nationalities, and some polar bears try to come into town sometimes. Actually we're all squeezed in this little space here because of nature. I'm the manager of the northernmost sporting store in the world. I have been up in swabber for 24 years.

At a pretty settled life in Germany, and I wanted to change, and I thought about travelling again and so I was playing a little lottery writing down. All the state's names on little pieces of papers I had one in my hand and I opened it and it was a small part of my first emotion. It was oh my god what I'm doing here. This is not my place and then after like three or four months I get to know people and I get to see the beauty of spar boards.

You're not meant to be born here that's for sure. We don't have a maternity ward and even if you are unlucky enough to die here, you're going to be shipped off. So that means only one comes up for some time, a period of time. Some people stay

six months, some people stay a year, some people stay considerably longer and new people arrive, get welcomed in. It was free land and open land. It belonged to anyone. Well it does, it belongs to the bears. I mean this place belongs to the bears, the reindeer, the seals and the whales. That's it under foxes. You know I mean that is if they're placed, we're guests. This is a full community of real communities and people check on each other. Because up here if you don't do it no one else will. We do sell all of the guns because we need guns to protect yourself against the polar bear. So as for us going out of the town, you should bring a gun because you never know where it is.

This is a tent that a polar bear came in. As you can see here there are many holes. Also the inner tent got damaged so I will try to fix these ones here but I've gotten many tents that they're too damaged. Your human instinct flourishes in Svalbard.

Much more than the other places because here it's cold you feel in your skin. Here it's dangerous. You have polar bears so you need to be awake, you need to be aware of what's happening around you. We have four months of darkness. We have four months of Sun all the time. So if nature wants, nature keeps you inside your house. Locked there I was having a dream to travel. I was not expecting to be here on the top of the world. The first time I see the Northern Lights it's like I'm in another universe. I say: "Oh my God! That's so beautiful! That's really, really beautiful!"

When I post a video or photo on Facebook and most of my friends see it they're quite surprised. I like this place, I'd like to see the water, the mounting that totally gave me positive energy.

Regarding climate

I've seen a lot of changes there. In 2002 was the last time I was on the ice driving my snowmobile to Berlin, spoke with a Russian settlement and that took me about no 10 minutes. It's a one and a half hour drive by land. I love this place. I love it. It's changing fast ten years. It is enough for me to say I've seen the effects of climate change here. It's not, it's not just a random weather pattern for a couple of years in this place as I know. I'm not sure if I've got to show my grandchildren and that's a shame

When you get driven to live here, your life in a place like slobber is as pure as well buried. People that live here, they like real life, they don't accept the model of how the world is down there. If you don't fit in the world out there maybe here is your place.

Unit 6 Video 1

The Ancient Origins of the Olympics

Thousands of years in the making. What began as part of a religious festival honoring the Greek god Zeus in the rural Greek town of Olympia has today become the greatest show of sporting excellence on earth . The exception date in 776 BC

became the basis for the Greek's earliest calendar where time was marked in four-year increments called Olympiads. What could it be? Why? It's the Olympic games of course. Competition fosters excellence or so thought the ancient Greeks in addition to sporting events contests were held for music singing and poetry. You can read about them all yourself in classical literary works like Homer's Iliad and Virgil's Aeneid. Even mythical heroes appreciate a good contest every now and then, wouldn't you say? For the first 13 games the ancient Greek Olympics featured just one event – the 200 yard dash, but over time new exciting contests like boxing, chariot and mule racing and even a foot race where the competitors wore a full suit of armor enticed many hopeful champions into the Olympic stadium. The combined running, jumping, wrestling, javelin throwing and hurling the discus events known as the pentathlon inspired world-class competition and the pankration, a no-holds-barred fight where only biting and eye gouging were prohibited ensured the toughest men were victorious. And victorious they were. Nobody tops the local baker Coroibos who in 776 BC became the very first Olympic champion and we'll never forget Orcipis of Megara the 720 BC Olympic victor who tore away his loincloth so he could race unimpeded inaugurating the ancient Greek tradition of competing in the nude. Now there's a winning streak if ever we've seen one. But all good things must end in 391 AD. The Christian Roman emperor Theodosius banned pagan practices so the world soon bid a fond farewell to the Olympic games. But just like those early pankration athletes you can't keep a good one down and 1500 years later in 1896 the modern Olympic games kicked off in Athens, Greece. Today the summer and winter Olympics bring international world-class athletes together by the thousands, uniting fans by the billions for the world's foremost sporting competition. Citius Altius Fortius – three cheers for the Olympics.

Unit 6 Video 2

10 Most Unusual Extreme Sports

Chessboxing. Most sports lay claim to boasting a mental and physical component but few can compete with the dual nature of chessboxing. The sport which marries the pugilistic power of boxing with the mental acuity required in chess is comprised of five two-minute sparring rounds and six games of speed chess. The first competitor to earn a knockout or to checkmate their opponent is declared the winner. It stands to reason that the thinking demands of chess would grow considerably more difficult after sustaining a few blows to the head.

Volcano boarding. Every year thousands of thrill-seeking travelers make their trek to Nicaragua Serranegra mountain in order to participate in the surfing of an active volcano. Boarders are dressed in protective jumpsuits, knee pads and helmets to protect against the rugged terrain of this 2380 foot volcano relying on a small piece of specially constructed plywood to help stay upright as they reach speeds of 80 km/h. Since its creation in 2005 volcano boarding has attracted more than 10,000 participating daredevils.

Cheese-rolling. For over 200 years, Brits gathering in Cooper's Hill during England's Spring Bank Holiday have incurred bumps, bruises and broken bones in pursuit of cheese. Such is the nature of the manic, fun chaos that is the annual cheese

rolling event where a judge rolls a wheel of cheese down a hill and numerous participants follow. Inevitably the chaser suffers their fair share of tumbles and falls as they navigate the tricky terrain. While the wheel of cheese may seem like a piddling prize to risk life and limb for, the British tradition continues to grow in popularity and now welcomes participants from all over the world.

Unicycle polo. There's a humorous contrast between the dignified nobility and refinement of the sport of horse polo and a silly awkwardness of unicycle polo. However, the execution is considerably more difficult, as focusing on balance and coordination while attending to strike a ball into opposing goals can prove to be no easy task. It is certainly a different challenge to attempt competing on one wheel rather than being balanced on a four-legged horse.

Zorbing. To "zorb" is to roll around in what is essentially an oversized cushioned hamster ball. There's an undeniable rush in the fast-paced disorienting feel of the unpredictable out-of-control movement of rolling around within the ball where you are situated in the middle of two inflatable plastic balls in order to cushion impact. The air in between them serves as a shock absorber as you experience the impact of the bouncing ball.

Train surfing. Originally made popular in the 1980s in Germany when it was known as s-bahn surfing, the incredibly unsafe and illegal sport of train surfing has enjoyed something of a renaissance in the last 10 years. The sport which usually involves climbing and surfing stop moving trains and subway cars made its return to prominence in 2005 when a gang leader in Frankfurt known as the Train rider famously served the inner city Express, the fastest train in Germany. This practice has been a serious issue in South Africa where many people have been killed or injured via ill-advised surfing stunts.

Ferret legging. Some sports are less than athletic prowess and more about well, trapping a ferret in your pants and hoping for the best. That is essentially the central theme of ferret legging where a group of almost exclusively male participants secure a ferret in their pants and simply seeing who could endure the biting scratching terror the longest. A man named Reg Malloy holds the supposed world-record time in the event, maintaining a ferret in his trouser for 5 hours and 30 minutes.

Bossaball. This visually stunning sport originally from Belgium is essentially volleyball on steroids played on its own custom-made inflatable court surface, competing teams of 3 to 5 players stand on either side of a high net and must keep the ball in the air with any part of their body. To add further excitement the court includes a trampoline on each side with each team's respective attacker positioned to slam the ball into the opposite side of the net.

Giant pumpkin kayaking. If Charlie Brown had been an extreme sports enthusiast you'd have to believe his fascination with the Great Pumpkin would have led him to this annual tradition in Oregon. 600 to 800 pound locally grown pumpkins are hollowed out and raced along a lake. In addition to the elements, regatta participants have to contend with vessels that aren't necessarily hydrodynamic or buoyant nor does the slimy meanness of their interior make for a particularly pleasing boating experience. Capsizing does happen on occasion which is why rescue boats are on hand.

Extreme ironing. According to the extreme ironing Bureau which apparently is a real thing, the sport of extreme ironing combines the thrills of an extreme outdoor activity with the satisfaction of a well pressed shirt. The central point of this admittedly tongue-in-cheek sport is to avoid wrinkling in the most remote extreme settings by toting an ironing board along with you as you explore caves, forests , mountaintops and just about anywhere else you can think of. Britain's Phil Shaw is widely considered to be the founder of the sport, even toting an ironing board during the 2012 Hastings half marathon pressing clothes along the way.

Thanks for watching this video. We hope you enjoyed it and it's extreme nature here are some other videos that you might like don't forget to click

Unit 7 Video 1

The Deadly Race to the South Pole

Everyone in this photo died soon after it was taken. These are British explorers standing at the South Pole in January 1912. The photo marks the finish line of a race into the unknown. Two teams, one British, one Norwegian, trekked 900 miles into brutal territory and had to get back to safety before winter hit. And at first glance, this looks like a victory photo for the British. Except that is the Norwegian flag. And it only gets worse from here. Robert Falcon Scott was a meticulous planner. And his dream was to be the first person to reach the South Pole. He and his English team of explorers and scientists had been conducting research in Antarctica and collected years of data on seasonal cycles on the continent. These lines show what they estimated average temperatures would be throughout the year, with summer ranging from around 30 to negative 10 degrees Fahrenheit, and huge drops beginning around April. Remember this chart because later, it will help us understand Scott's decision-making.

Scott planned to use pony transport for the first 425 miles across the Ross Ice Shelf, shoot them at the base of the Beardmore Glacier, and finish the rest of the journey on foot which included a 125-mile hike across the top of the glacier, 350 more miles to the pole, and all the way back again, all while hauling hundreds of pounds of equipment. Using ponies and brute strength made sense to Scott at the time: British explorers had used this method to haul equipment during an earlier attempt on the South Pole. Plus, the English didn't have experience with the other good option: dog teams. And they believed man-hauling was the surest way to make the tricky climb up the glacier and on to the Polar Plateau, where the South Pole sits.

It was hard, slow work, but the route they were on had reached the plateau before, and it seemed to be worth the effort. But Scott's team wasn't alone. Norwegian explorer Roald Amundsen was camped nearby. And he wanted to get to the pole first. The Norwegian team, all of them expert skiers, knew how to travel in cold conditions. And to make matters worse for the English, Amundsen had dogs — and he knew how to use them.

News of the Norwegians' last-minute bid worried Scott, but he was still optimistic. Amundsen had started about 60 miles closer to the pole but was taking a route not yet proven to be passable. Coming against an unknown obstacle or falling into an unmarked crevasse could end his attempt prematurely. But that's not how it

happened. By the time Scott reached his goal, Amundsen's flag was there waiting for him. The Norwegians and their dogs had comfortably reached the pole five weeks earlier and were almost back to their starting point by the time the English arrived. Scott and his team were heartbroken. They took this photo outside of Amundsen's tent the day they started their long journey back. Scott wrote: Left a note to say I had visited the tent with companions. Bowers photographing and Wilson sketching. We have turned our back now on the goal of our ambition and must face our 800 miles of solid dragging — and good-bye to most of the daydreams! This is where the trouble really begins. It's mid-January in this photo — still the height of the Antarctic summer.

Told you this chart was coming back. According to their research, the team had about 3 months left before temperatures on the Ross Ice Shelf, the last leg of the journey back, would drop to deadly levels. That left plenty of time to make the long trek on foot. But this isn't what happened in 1912.

This is that average line again, and these are the temperatures Scott's party endured that summer: consecutive days of temperatures around minus 40 degrees Fahrenheit. Those conditions, at prolonged exposure, are not survivable. The first man died here — he collapsed and soon went comatose following several falls on the glacier. The next man died about a month later, after crippling frostbite in his hands and feet began hurting the team's progress and their chances of survival. Nearly unable to walk, he left the tent and sacrificed himself to a snowstorm. The last three, including Scott, made it here before getting trapped in their tent by a blizzard, just 11 miles from the supply depot that would have saved their lives. The tent, along with the bodies, journals, and photographs, was found 8 months later by a search team.

As time went on, Scott's legacy vacillated between fearless explorer and bumbling fool who tried to take ponies into the Antarctic. But the thing is his plan should have worked. Measurements from modern weather stations along his route show the predictions he was relying on were impressively accurate. What Scott couldn't have known is that 1912 was an anomaly — the temperatures his party suffered through occur roughly once every 15 years, turning an already risky venture into a hopeless one. The photo they took outside of Amundsen's tent was meant to be a gentlemanly admission of defeat at the end of a long race. But instead, it was the starting line of a race they didn't see coming — a desperate attempt to escape from the coldest place on Earth.

Darkroom is a new series I'm working on where each episode tells a story based around a single photograph. Here's a quick look at some upcoming episodes. And you should also check out our new YouTube membership program, the Video Lab. For a monthly fee, subscribers get access to tons of special features. I'll be sharing stuff there that I came across while making Darkroom, so if you're interested, head on over to Vox.com/join and sign up. See you there.

Unit 7 Video 2

Mountaineering: Height Doesn't Matter

When you're climbing a mountain without a rope are you sure that you're not going to fall to your death? I mean the truth is you can't, no, I mean I don't know. I was raised by scientists and I'm thinking well there's always some percentage chance that you're going to fall.

At 26, alpinist Colin Haley is part of a small subset of climbers dedicated to climbing the world's most difficult and dangerous mountains in lightning quick style. Sometimes even without the safety of a rope. To this core group, highest doesn't mean hardest. They are looking beyond the relatively gentle slopes of Mount Everest. People ask me all the time if I want to climb Everest. Non-climbers generally have this impression that 'the highest means the hardest', but Everest is not a difficult climb. Someone with little climbing experience can get guided up is not difficult. In 2010 there were 516 successful summit beds on mount Everest, which means to the world's best alpinists Everest is pretty much a hike in the hills. I have much more interest in mountains that regardless of their altitude are difficult to climb because they're big and steep. I mean the bottom line is you're just trying to find the hardest thing possible. For a lot of the routes in Patagonia or Pakistan you have to be a really good rock climber, you have to be a really good ice climber, you have to be extremely fit, you know, just as much as anyone climbing Everest or K2. These mountain faces can be two to three times the size of Yosemite's el capitan with up to twelve thousand five hundred feet of straight up relief. Speed and efficiency are essential to survival so the pros and cons of every bit of gear are weighed before a big route. Sometimes alpinists forget tents and sleeping bags. I was thinking of water bottles. We've got the four liter dromedary cached yeah I was thinking we take just that and two Nalgenes. Climbing a route that big with that little equipment leaves you a small margin of error. On a recent trip to Alaska's mount forwarder Haley tested the boundaries of this light and fast approach after completing a new route the storm moved in. They had less than a half a day's worth of food left. Without anything to sleep or food or water you're just gonna die pretty quick. Haley's only option was to keep moving in blizzard conditions. After 72 hours of constant exertion without sleep he made it safely back to camp. I love battling through a storm and you know having snow blow down my neck and stuff like that doesn't sound like a fun thing but just the intensity of that situation is something that I really enjoy and thrive on. I would consider what I do a fringe activity but definitely anyone who is dedicated to alpine climbing accepts the fact that they might die doing it.

Unit 8 Video 1

The Sahara Desert | Ecosystems

The Sahara Desert, located on the African continent, is the largest hot desert in the world. The enormous Sahara spans over 11 countries including Algeria, Egypt, Libya, Mali and Niger. It covers over 9.2 million square kilometers, roughly the size of the United States of America, amounting to 31% of Africa. The chief landforms of the Sahara Desert include dunes, Hamada regs, herbs, salt flats and

oasis. The Sahara has only two permanent rivers – the Nile and the Niger, but it has a substantial amount of aquifers and a handful of lakes. The temperature during the summer months can exceed 50 degrees Celsius and during the cold season the average temperature is approximately 13 degrees Celsius. The central part of the Sahara receives an average of less than one inch of rain per year, other parts with always the case. Archaeological and geological research shows that the entire Sahara was once green. This period between eleven thousand five hundred and five thousand years is called the African humid period, oldest rock hearts that are eight thousand years old show a time when Sahara was much greener and wetter than today. Despite the harsh, arid conditions of the present time several plants like dune palm, tree Ella Perrins, olive tree, peyote cactus, love grass and animals like dromedary camels, Dorcas gazelle, Saharan horned Viper, ostrich, monitor lizard and deathstalker scorpion call the region home. Sahara's entire human population equals less than 2 million. These people are mostly Nomads. Did you know that the Amazon rainforest depends on the Sahara for its very survival? The Sahara sand gets carried by the wind power, crosses the Atlantic Ocean and gets deposited in South America. The sand particles pick up moisture during their journey and bring rain along with them. This rain and dust fall on the Amazon rainforest, fertilizing it with phosphorus and providing the water that it needs. Without Sahara the Amazon rainforest could be potentially destroyed. Due to climate change the Sahara Desert has grown nearly 10 percent since 1920. Approximately one third of the desert's expansion was due to human-made climate change. The UN Food and Agriculture Organization estimates that by 2030 Africa will lose two-thirds of its arable land if the march of desertification has not stopped.

Unit 8 Video 2

The First Person to Fly a Balloon Around the Globe

'I was the first person to fly a balloon around the globe'

It is an incredibly difficult thing to achieve – to get a balloon to fly around the world. This had never been done before. And yet it was the oldest form of flight. And there was a kind of an empty page in the history books. It was the ultimate challenge for a balloon. The morning of takeoff was difficult in many ways actually, because we didn't know what was going to happen. Of course we couldn't fly around the world in the basket, not at the altitudes that we were thinking of, so we needed a pressurized capsule. We tried to make things as comfortable as possible. "So this is breakfast, on 11th March, at 8 o'clock in the morning." We had a little modesty curtain where the toilet was at the back of the capsule and we would go behind the curtain then and wipe ourselves down with these baby wipes. For the first 11 days, which took us out beyond Taiwan, the balloon performed really well and we were very happy with it. I think that was the most satisfying time that I found in the whole flying, where I felt that I could make this thing dance. Then things started to go wrong. We lost communications, we lost three of our six burners. And then the third thing was the issue of looking ahead at these storms and seeing them there, not knowing how high they were, and not knowing whether we would actually fly into them. Because we were pushing the balloon as high as we possibly could, we lost

our heating system. Now everything was covered in ice inside and outside. We were terrified actually. "We're still nearly 2,000 miles away from Hawaii. So we're right out in the middle of nowhere and not going very fast." It was not an easy situation for those four five nights over the Pacific.

When we got communications back, there was a huge relief. We'd managed to get across the Pacific and exactly as Luke our meteorologist said, this jet stream wind was born and life was getting a little better for us. "The balloon, now traveling at around 90 miles an hour, has climbed into the jet stream air currents they hope will carry them to their target just beyond the African coast." We were doing 160/170 miles an hour. I mean in a balloon, which is extraordinary. We were so excited, so we crossed the finish line and our team said; "OK, now we get serious. We've got to get the balloon down in one piece." We came down and we landed in Egypt in the middle of the Egyptian desert with the final dregs of our fuel. We were just incredibly relieved, really tired and I was kind of just kneeling down, feeling the sand and letting it run through my fingers. And just thinking, this is really cool. I don't think it was a foolish thing to do. I mean we were pilots, we were just flying a balloon and that's what we were doing to the best of our ability.

Unit 9 Video 1

5 Interesting Facts About Atlas by Boston Dynamics

Welcome back, guys! And in today's one we take a look at the fascinating science behind Atlas from Boston Dynamics.

Atlas is the most dynamic humanoid robot currently on the market. Its state-of-the-art hardware gives the robot the power and balance to demonstrate human level agility. The robot has one of the world's most compact mobile hydraulic systems. The custom battery, valves and a compact hydraulic power unit enable Atlas to deliver high power. To any of its 28 hydraulic joints for impressive feats of mobility. Atlas's advanced control system enables highly diverse and agile locomotion, while algorithms reason through complex dynamic interactions involving the whole body and environment to plan movements. The robot uses 3d printed parts to give it the strength to weight ratio necessary for leaps and somersaults. By training Atlas to maneuver its way through complex parkour courses, Boston Dynamics engineers develop new movements inspired by human behaviors and push the humanoid robot to its limits.

Let's take a look at how Boston Dynamics are building a foundation with Atlas.

A robot's ability to complete a backflip may never prove useful in a commercial setting. But it doesn't take a great deal of imagination or sector specific knowledge to see why it would be helpful for Atlas to be able to perform the same range of movements.

If robots can eventually respond to their environments with the same level of dexterity as the average adult human, the range of potential applications will be practically limitless.

"Humanoids are interesting from a couple perspectives," Benjamin Stephens says. "First, they capture our vision of going anywhere, doing anything, robot of the future. They may not be the best design for any particular task, but if you wanted to

build one platform that could perform a wide variety of physical tasks, we already know that a human form factor is capable of doing that. From a technical perspective, humanoids present several challenges that we welcome as a research team.”

He adds, “Their combination of size and complexity creates hardware design trade-offs related to strength to weight ratio, run time, range of motion, and physical robustness. At the same time, our control team has to create algorithms that can reason about the physical complexity of these machines to create a broad set of high energy and coordinated behavior.

Ultimately, pushing the limits on a humanoid-robot like Atlas drives hardware. And software innovation that translates to all of our robots at Boston Dynamics. Parkour as narrow and specific as it may seem gives the Atlas team a perfect sandbox to experiment with new behaviors.

It's a whole-body activity that requires Atlas to maintain its balance in different situations.

It's really about creating behaviors at the limits of the robot's capabilities, and getting them all to work together in a flexible control system. Benjamin Stephens says, “There are many important problems that parkour doesn't force you to address but that's not the point. We're not trying to solve everything all at once. The work we're doing now is allowing us to create a solid foundation.”

Looking back over five years of Atlas videos, it's easy to lose sight of just how much progress the team has made during that time. In fact, some of the improvements are invisible to the average viewer even though they represent giant leaps in technology. Atlas's moves are driven by perception now and they weren't back then. Benjamin Stephens explains, “For example, the previous floor routine and dance videos were about capturing our ability to create a variety of dynamic moves and chain them together into a routine that we could run over and over again.

In that case the robot's control system still has to make lots of critical adjustments on the fly to maintain balance and posture goals. In this iteration of parkour, the robot is adapting behaviors in its repertoire based on what it sees. This means, the engineers don't need to pre-program jumping motions for all possible platforms and gaps the robot might encounter. Instead, the team creates a smaller number of template behaviors that can be matched to the environment and executed online.

Simulation is an essential development tool for the Atlas controls team, both for evaluating new behaviors prior to robot testing and for ensuring that new software changes don't negatively impact existing capabilities. But there's still no replacement for hardware testing, particularly in performance limiting motions like vaulting.

About that vault. Unlike high flipping gymnastics vaults, a parkour vault is a slightly less flashy method designed to get a runner over a low wall or obstacle. In this case, the balance beam is only a few feet high. Atlas places its arm on the beam and then hoists its body over the structure. For many humans this sort of vault would be relatively easy. But for the Atlas team it represented a formidable new challenge. If you or I were to vault over a barrier, we would take advantage of certain properties of our bodies that would not translate to the robot who enters maneuvers. For

example, the robot has no spine or shoulder blades so it doesn't have the same range of motion that you or I do.

So, guys I hope that demonstrations like this provide a small glimpse of what's possible. So, where do you see the future of Atlas? A robot for show or a marketable product adopted by humanity?

Unit 9 Video 2

Building the World's Largest (and Most Controversial) Power Plant

In 2018, a single power plant produced more energy than the world's largest coal-powered and gas-powered plants combined. And rather than using finite fossil fuels, this massively powerful plant relied on a time-tested source of renewable energy: running water.

Stretching over 2.3 kilometers, China's Three Gorges Dam isn't just the world's largest hydroelectric plant. It's capable of producing more energy than any other power plant on Earth. So, what allows Three Gorges to generate all this power? And how do hydroelectric plants work in the first place? A hydroelectric dam is essentially a massive gate, which redirects a river's natural flow through a large pipe called a penstock. Rushing water flows through the penstock and turns the blades of a turbine, which is attached to a generator in an adjacent power station. The turning of the blades spins coils of wire inside a magnetic field, producing a steady supply of electricity.

Because the penstocks can be sealed at any time, a dam can hold back excess water during stormy seasons, and save it for dry ones. This allows hydroelectric dams to produce power regardless of the weather, while simultaneously preventing floods further downstream. These benefits have long appealed to China's Hubei Province.

Located near the basin of the Yangtze River, this region is prone to deadly floods during rainy seasons when the Yangtze's flow is strongest. Plans to build a dam that would transform this volatile waterway into a stable source of power circulated throughout the 20th century.

When construction finally began in 1994 the plans were epic. The dam would contain 32 turbines— 12 more than the previous record holder, South America's Itaipu Dam. The turbines would supply energy to two separate power stations, each connecting to a series of cables spanning hundreds of kilometers. Electricity from Three Gorges would reach power grids as far away as Shanghai. However, the human costs of this ambition were steep.

To create the dam's reservoir, workers needed to flood over 600 square kilometers of land upstream. This area included 13 cities, hundreds of villages, and over 1,000 historical and archaeological sites. The construction displaced roughly 1.4 million people, and the government's relocation programs were widely considered insufficient. Many argued against this controversial construction, but others estimated that the lives saved by the dam's flood protection would outweigh the trauma of displacement.

Furthermore, raising the water level upstream would improve the river's navigability, increase shipping capacity, and transform the region into a collection

of prosperous port towns. When the project was completed in 2012, China became the world's largest producer of electricity. In 2018, the dam generated 101.6 billion kilowatt-hours. That's enough electricity to power nearly 2% of China for one year; or to power New York City for almost two years. This is a truly astonishing amount of energy.

And yet, two years earlier, another dam less than half the size actually generated more electricity. Despite Three Gorges record-setting scale, the Itaipu Dam still produced more power. To understand why Itaipu can outperform Three Gorges, we need to look at the two factors that determine a dam's energy output.

The first is the number of turbines. Three Gorges has the world's highest installed turbine capacity, meaning it's theoretically capable of producing over 50% more power than Itaipu. But the second factor is the force and frequency of water moving through those turbines.

Three Gorges spans several deep, narrow ravines surging with powerful water. However, the Yangtze's seasonal changes keep the dam from reaching its theoretical maximum output. The Itaipu Dam, on the other hand, is located atop what was previously the planet's largest waterfall by volume.

Although the dam's construction destroyed this natural wonder, the constant flow of water allows Itaipu to consistently generate more power each year.

This dam rivalry is far from over, and other projects like the Inga Falls Dam in the Democratic Republic of Congo are also vying for the title of most powerful power plant. But whatever the future holds, governments will need to ensure that a power plant's environmental and human impact are as sustainable as the energy it produces.

Unit 10 Video 1

The Great Barrier Reef

From space the east coast of Australia appears to be in the embrace of a giant opal. The largest living structure on Earth. The Great Barrier Reef is a lacy living wall. Spanning more than 2000 kilometers and submerged reefs between the Queensland coast and western edge of the Pacific ocean diving in. Opal seems to splinter into millions of pieces. Whirlpools of small metallic blue fish barracuda gliding like silver submarines and occasionally lone predatory sharks.

The Great Barrier Reef is like an underwater city whose buildings are alive with millions of small creatures whose lives are intimately and intricately connected. It is as diverse as a rainforest, a mosaic of more than 70 types of habitats hosting thousands of species of marine life as many as a hundred different kinds of coral may occupy a single acre of ocean. Molecule by molecule coral animals gradually extract calcium carbonate from the surrounding water to form minute stony cups around each animal's soft crown of tentacles. Some corals live in solitary splendor, but most are built with hundreds, sometimes thousands of individual animals linked together to form a single coral mound plate or cluster of branches. Some are like little trees and shrubs. They provide food and shelter for thousands of other forms of life. Corals get the credit for most of the reef structure but much of the construction is done by fast-growing encrusting red algae. They act like pink glue

cementing fragments of the shell sand and coral with sheets of calcium carbonate. The reef is home to more than 4000 kinds of mollusks from tiny sea slugs nudibranchs to giant clams. Green sea turtles travel thousands of miles in the open sea to reach the sandy beaches of some of the barrier reefs islands and there to lay their eggs. Hatchlings head straight for the sea. They will travel thousands of miles over the years and eventually return to lay their own eggs.

Established as a national park in 1975, the Great Barrier Reef was designated as a world heritage site six years later. Today about 33% of it is fully protected from fishing and other extractive activities and efforts are underway to deal with pollution overfishing and the consequences of climate change. The Great Barrier Reef appears to be about 20 000 years old but geologists using deep coring techniques have found evidence of ancient corals there that are half a million years old with care for the future of Australia's living treasure. The Great Barrier Reef will be at least as enduring as its magnificent past you.

Unit 10 Video 2

Beginner Guide To Windsurfing

In our learn to windsurf video, we're going to go through the basics. You need to progress your windsurfing journey as quickly as possible. From setting up the equipment to recovering the rig from the water and your first basic turns. All the way through to good stance, a sailing position, steering and then starting to head towards the wind, away from the wind, as well as faster turns like tacks and gybes. Let's look at the iQFOiL 85 SurfaceToAir and how best to set it up for a beginner windsurfer. So in terms of parts of the board. First of all, we have the nose and we have the tail. Down the sides of the boards, we've got the rails. The most important part of the board to think about is what we call the center line. Now this is the imaginary line that runs from the nose of the board straight down the middle through the universal joint or UJ where our sail attaches all the way to the back of the board and that's the most stable point in the board and where we're going to keep on weight all the time. My last bits of set up are my fins. My 41 cm fin is going to go in the slot in the middle of the board from below.

In the rear of the boat, I have this 30 cm fin and that helps me go in a straight line. Last little thing to look at then is my universal joint or my mast foot. So again, this is where the sail attaches. I'm going to try and position that in the middle of the board. However, if you use really small sails like the 2 m, I might slide it a little bit further back to help the board turn more easily. The best conditions to learn to windsurf in are normally flat water anywhere from 3 up to roughly 10 to 15 knots as your skills progress. You can start to get windy conditions or start to increase your sail size. Approach the board from the opposite sides of the rig, placing your hands and keeping your body weight over the centerline. Grab the uphaul and check the wind direction. Stand up and lean back slightly. Use your legs, not your back to pull the rig out of the water working hand over hand, always keeping your weight over the centerline. Grasp the mast below the boom with extended arms. If you lean the rig to the back of the board, it turns towards the wind. If you lean the rig to the front of the board, it turns away from the wind and with the rig flapping freely at 90

degrees to the board. This is your secure position. The secure position is the first chance to get the rig up and out of the water.

Orientate yourself to the wind and it's the beginning and the end of all the moves you do as a beginner. Pick a goal point ahead. Take your front hand off the mast and move across your body and onto the boom. Step back on the board, pointing your front foot forward. Turn your hips and shoulders to face your goal point and draw the rig across your body and upright, sink your weight down for the back leg. Place the back hand on and pull in slightly to generate power. When you are in your sailing position, keep looking forward at your goal point, if you get a bit more wind, you can sink weight down through the back leg to control the power. To slow down, you can ease out with the backhand and stand up slightly. When you're sailing along, always look ahead and pick your goal point. Try and keep your weight on the center line and try to keep your hips facing forward with extended arms. The static turn is our most basic turn, and it's the first way we turn the board around. So holding onto the mast with both hands in your secure position, lean the rig towards the back of the board. As the board turns towards the wind, take small footsteps around the mast foot. Keep the rig leaning across the back of the board. Once you've turned the board through 180 degrees and you're back in your secure position, your turn is complete.

Once you're happily sailing across the wind, we can then look at steering. To steer towards the wind, look towards the wind and pick a new goal point. Lean the rig back, extending your back arm, moving your hips in the opposite direction. The board will turn towards the wind. Once you're facing your new goal point, bring the rig back up to your sailing position and pull in gently with your back hand. To steer away from the wind, drop your body weight low, lean forwards and towards the wind, with extended front arm. Once you're pointing back towards your original goal point, ease out the backhand and return to your sailing position. The trick to steering is you can move a windsurf rig wherever you want, as long as your body and your hips can counter it. Look towards a goal point closer to the wind and steer towards it. Once sailing towards the wind, place your front hand on the mast and wrap your front foot around the mast foot.

Lean the rig back as the board steers towards the wind, step up with both feet in front of the mast and both hands on the mast. Keep the rig leaning across the back of the board until the turn is complete and then set back off your sailing position across the wind. As you progress the tack, we can steer in and steer out of the tack. So rather than returning to your secure position, steer into the wind, step round the front, grab the new side of the sail and lean the rig forward to steer away.

To gybe drop your body weight low, you may even need to step back on the board a little. Lean the rig forward and towards the wind with an extended front arm. As the board steers away from the wind, keep your body weight low until you're going straight down wind on a run. Ease out the back hand and bring the rig across the middle of the board, change your feet.

Front to back foot and stepping forward with your new front foot. Keeping your weight over the centerline. Slide your hands right up next to the boom clamp. Release your backhand and transfer it across your body and onto the new side of the boom.

To make ground towards the wind, we can't sail straight there. We can sail across the wind and we can sail closer to the wind, but 45 degrees either side of the wind, this is our no go zone. So like a road up a mountain and all the hairpins, we have to zigzag our way towards the wind. So, to do this, pick a new goal point closer to the wind and steer towards it. Once you are aiming at your new goal point, return the rig to the sailing position and pull in gently with your back hand. Hold this course. You are now sailing closer to the wind in the correct sailing position.

After a while, check for obstructions and tack. Once you've tackled the same thing again, pick a new goal point closer to the wind and steer towards it. When you're facing that goal point return the rig to the sailing position, pulling in slightly with your back hand. Again, hold this course. You've done your zig, this is now your zag and you're slowly moving towards the wind. Keep doing this until eventually you reach your upwind goal. If the wind drops or you've been blown downwind and you're struggling to get yourself back to the beach, we do have a form of self rescue. This is called the butterfly rescue. From your secure position lean the rig towards the back of the board and making sure your boom is low enough, lower the rig across the back of the board, so it's resting there. Now lie down on the board with your feet balancing the rig and you can paddle the board back towards the wind or back towards the beach if the wind has fully dropped.

Make sure you return to your safest bit of land to get yourself to safety as quickly as possible. Some key tips when we're learning to windsurf. Always look towards your goal point, your head is your most important part of your body. Keep your hips and your shoulders facing forward. This will help keep the rig upright and take the weight out of the sail. Your boom height should be between chest and shoulder, any lower it puts pressure on your back and too high. It becomes hard to control.

Unit 11 Video 1

Oxford University Highlights

Oxford University, also known as the University of Oxford, is a collegiate research university in Oxford, England. It is one of the most prestigious universities in the world. There is evidence of teaching as early as 1096, making it the oldest university in the English-speaking world and the world's second oldest university in continuous history. Operation mortis memorial is a stone monument that commemorates the 16th century Oxford martyrs. The monument was built 300 years after the events of the English Reformation and commemorates the Bishop of Worcester yuge Latimer and Bishop of London Nicholas Ridley who were burned nearby in October 1555. After having been convicted for heresy because of their Protestant beliefs. It also commemorates the former Archbishop of Canterbury Thomas Cranmer, who was also executed after having watched his colleagues' painful deaths, while imprisoned in a nearby tower in March 1556.

Broad Street is known for its book shops, locally the street is known as the Broad. Broad Street is where the Protestant Oxford martyrs were burnt at the stake of this cross and the road marks the location. Oxford University is made up of 39 individual colleges and does not have a main campus, it has approximately 25,000

students. Oxford has educated a wide range of famous alumni including 28 prime ministers of the United Kingdom, many heads of state from governments around the world, 72 Nobel Prize laureates and its alumni have 160 Olympic medals.

Further down on Broad Street is the Clarendon building and the Circular building on the right is the Sheldonian theater. The Clarendon building is an early 18th century neoclassical building that was built between 1711 and 1715. It was built to house the Oxford University Press which had previously been inside the Sheldonian theater. It owes its name to the fact that it was partly paid for by the profits from a book called "The History of the Great Rebellion" by Lord Clarendon, whose son presented the University with his copyright. It was known as the Printing House until 1832. It was also formally a police station, a university registry office and it now houses the admissions department.

The Sheldonian Emperor Heads were first commissioned by Sir. Theater was built from 1664 to 1669 after a design by Christopher Wren. The building is named after Gilbert Sheldon, Chancellor of the University at the time and the project's main financial backer. It is used for music concerts, lectures and university ceremonies, but not for drama until 2015. The car figures known as the Christopher Wren, have been replaced twice since 1660. Although they are referred to as the Emperor Heads, it is thought they depict ancient philosophers or emperors.

Perfect bridge, often called the Bridge of Sighs, is a Skyway joining two parts of Hertford College over New College Lane. The bridge is often referred to as the Bridge of Sighs because of its similarity to the famous Bridge of Sighs in Venice. However, Hereford Bridge was never intended to be a replica of the Venetian bridge and instead it bears a closer resemblance to the Rialto Bridge in Venice. It was completed in 1914.

The Bodleian library is the main research library at Oxford and it occupies five different buildings which hold over 13 million printed items. It's the second largest library in Britain. It is named after Sir Thomas Bodley, who founded the library. In 1602 he was involved in the refitting of the original library and donated many books back. In the early 17th century the library was officially known as Baddeley's library by the time of Bali's death in 1613 his planned further expansion to the library was just starting. This library is known as the school's quadrangle, sometimes referred to as the old school's quadrangle or the old library and was built between 1613 and 1619, when it added three wings and its tower known as the Tower of the five orders, which forms the main entrance to the library. The tower is so named because it is ornamented in ascending order with the columns of each of the five orders of classical architecture: Tuscan Doric Ionic Corinthian and Composite.

This is the Radcliffe Camera, a Radcliffe library building. The building is also known as "Rad Cam" or the Camera. The library's construction and maintenance was funded from the estate of dr. John Radcliffe, who died in 1714. It was designed by James Gibbs in neoclassical style and built from 1737 to 1749 to house the Radcliffe Science Library. The Radcliffe Cameras stand alone appearance along with its circular shape make it the focal point of Oxford University.

Until 1810 the library housed books covering a wide range of subjects, but it only focused on the Sciences. It was at this point that librarian Henry went with

Ackland laid out plans for the Radcliffe library building to merge with the University and the library's collection of books to be moved to the newly constructed Radcliffe Science Library. The Radcliffe Camera was called the Radcliffe Library until 1860, when it was replaced by the Violin Library. After the building was known as the Radcliffe Camera, serving as a reading room. The church was established on this site at the center of the old walled city in anglo-saxon times dating to 1086. Until the 17th century the church was used not only for prayers but also for increasingly rowdy graduation ceremonies. In the later 15th and early 16th centuries the main body of the church was substantially rebuilt, but the oldest part of the present churches of the tower dates from around 1270. The decorated spire with its triple gabled outer pinnacles, inner pinnacles, gargoyles and statues was added in the 1320s.

This timber-frame building on the corner of Corn Market and Ship Streets originally comprised three separate shops. It is the surviving half of a building completed around 1386, known as the New Inn. It was altered in the 17th and 19th centuries and was restored in 1983.

Unit 11 Video 2

Ten Harvard University Facts

Harvard University colleges and universities are institutions of prestige and intellect, but for a few of them their roots reach deep into the history of our country. This is the case of America's oldest university. Harvard was established in 1636 before America was even a country.

Harvard is one of the most well-known and admired higher learning institutions not just in the country, but in the world. With all these names comes an amazing story, and today we're going to take a look at our list of 10 amazing facts about Harvard University. If this is your first time on the channel, then welcome be sure to subscribe. While you're here also as we are coming out with new videos regularly, be sure to hit the notification bell that way you stay up to date with our newest releases with that being said let's get into it number 10.

Harvard University holds a record number of honors and awards with 161 Nobel Laureates, 23 heads of state, and 132 Pulitzer Prize winners. Harvard has been producing quality graduates right from the second president of the USA back in 1797 – John Adams. By the end of the first decade of the 21st century, Harvard had educated seven US presidents as the years progressed and more students funnel through the school. It will be amazing to see exactly what sort of world leaders and influencers they will produce.

Number nine. The university is like its own city. Nowadays universities have multiple campuses and numerous buildings, they are like small towns to themselves. When Harvard was first started, it was a single frame house and a college yard, but today it has grown to resemble something like a city. Now their real estate holdings alone total 5. 457 acres of land, which is over 4 000 football fields. The crazy thing is, that of the total land owned the main university campus, sits on only three percent. Much of the rest of the land is leased, making it yet. Another source of income for the school the rest is used for various other purposes of the school.

Number eight. The Widener library is humongous; you would expect a

university as big and as old as Harvard to have a serious collection of books. It's definitely true what you may not realize is exactly how massive it is. Harvard boasts the oldest collection of books. In the country there are 79 libraries in total and the largest is known as the Widener Memorial Library; it is home to 3.5 million books in over 100 languages and over 57 miles of shelves. The only other library in the United States that is larger than the one at Harvard, is the library of congress which is nearly double the size of Widener Library.

Number 7. Harvard tried banning football twice. Part of being enrolled at such a prestigious university is studying almost non-stop, but when you study that much you also need time to play a bit. As well, Harvard has been known for having one of the best athletic programs. However, there was a time Harvard tried to ban football at the university twice. They believed that the violent and dangerous characteristics of the sport were not best for the school, but after pressure from students and alumni the football program was allowed to stay. Today the Harvard football program remains one of the most competitive programs in the country.

Number 6. Women were not always allowed to attend Harvard. Today Harvard prides itself on gender equality as well as being an advocate for LGBTQ rights, but it wasn't always that way. Until 1999 Radcliffe College, now the Radcliffe institute for advanced study, was essentially the all-female counterpart to Harvard courses at one point joint diplomas were offered between the two universities and a merger started. In 1977 this allowed Radcliffe students to take Harvard classes, but didn't offer those women an official Harvard degree. Fortunately, the practice is not in place today at Harvard as a matter of fact the female demographic makes up about 49 of the total student body.

Number five. An on-campus murder inspired the creation of the forensics department. There is a famous murder case known as the Parkman Webster murder case. Parkman, a high-profile businessman and Harvard alum, lent money to Webster. A Harvard professor Parkman visited Webster to confront him about the repayment and ended up burnt and dismembered in Webster's laboratory. The ensuing trial was a milestone for the U.S legal system and, was reportedly, the first case in U.S. history, where forensic anthropology had been used to prosecute the murderer. Now Harvard University runs one of the best forensic investigation programs in the world leading the way in numerous industry changing studies.

Number four. Harvard has an awesome football stadium. The famous u-shaped football stadium of Harvard University is located right across the river in the Alston neighborhood of Boston. It is the nation's oldest stadium built in 1903 and resembles bits of Greek and Roman architecture. It holds over 30 000 fans and has become a multi-use arena. The field also hosts the school's track and field rugby lacrosse and even ice hockey teams. There is no doubt that once a person sets their eyes on it. They will know that it belongs to a school that is just as grand.

Number three. You have less than a five percent chance of getting in. We all know how hard it is to be a student with great grades in all. Honestly the odds are pretty low that it will happen. That's nothing when compared to the odds of winning the lottery. So what are the odds of being a top of your class student and winning the lottery? At the same time your odds are about as high as getting into Harvard. Each

year Harvard University gets thousands of applications from students all over the world. However, only six percent of them are accepted. There has even been a rumor that some students who score perfectly on tests and acts have been denied admission. On one hand, it seems incredibly unfair to deny some of the brightest students in the world for the best education in the world. On the other hand, though, it adds to the exclusivity of the institution.

Number two. You have no idea how rich the university is. Assumptions about Harvard University are the same as the assumptions of pretty much any Ivy League School. It has rich and influential alumni not to mention it costs around 52 000 per year to attend. So it's safe to say they have money, but how much exactly Harvard University has the largest academic endowment in the world totaling to about 37.6 billion us dollars. Well, the last couple of years has definitely seen the university take some financial hits. The university still remains at the top in the world. The next two highest earning universities are Yale University and the University of Texas.

Number one. There are three lies concerning the Harvard statue. The statue of John Harvard is quite possibly the most recognizable landmark at Harvard University as it honors the founder of the school. Many universities have something similar honoring their heritage as well, but this particular statue has an odd nickname. It is often called the statue of three lies embarrassingly enough. This statue actually has some major errors in it. Firstly, John Harvard was technically the main benefactor of the college donating funds to begin the university which is why the school carries his name today. But the statue labels him as the founder of the school which he was not; he simply donated a large portion of money. Secondly, there was a bit of an error in dates: the statue reads that Harvard University was founded in 1638. Unfortunately, they were a couple of years off the school. Actually, it opened its doors in 1636 two years earlier than what was listed on the statue. The final mistake is the biggest and most embarrassing: the statue doesn't even depict John Harvard. That's right whoever built the statue didn't even make it to resemble the man they falsely stated started the school. The sculpture, actually, depicts a student by the name of Sherman quite a far cry from John Harvard.

Unit 12 Video 1

How To Improve Memory

If you're stressed out because you have a bad memory, I'm going to give you ways to improve your memory with these good habits. The first way to improve your memory with a good habit is getting enough sleep. You've heard it said a million times, but it's so true. Without a good night's sleep you're not going to be able to remember the next day. So get at least eight hours of sleep, that six-to-eight-hours window is one of the most crucial areas of sleep. It's REM sleep, and if you don't get that, you're not going to remember what you learned during the day, and you're not going to be prepared for the next day in terms of your memory.

And the next step is to drink plenty of water. A dehydrated brain is a brain that won't be able to focus, so that's why drinking plenty of water is so important.

The next one is exercise. A 2014 Harvard Health Letter said that exercise helps the memory in both direct and indirect ways. It helps directly because exercise

reduces inflammation -- and that helps your brain -- and it stimulates the growth of new blood cells in the brain. And, indirectly, exercise is going to help your memory because it's going to help you sleep better, and also it's going to help reduce your stress and anxiety. And that's going to really help your memory.

Now, salt plays an important part of your memory. A lack of salt is actually going to hurt your memory. In the brain, salt is used as a stimulant to encourage the brain to create new memories. So, when salt is restricted, it can actually hurt your short-term memory. Now, not to stress you out, but if you go overboard and have too much salt, that is bad for your memory and has even been linked to Alzheimer's disease.

Speaking of stress, that leads to our next habit to improve your memory. Stress is without question the worst enemy to your memory. Think about a time in your life when you were stressed out or you were going through a stressful period in your life, your memory was probably horrible.

So to reduce your stress, some people meditate; some people just close their eyes and just exhale and clear their mind and have a quiet time. Sometimes in the week before the World Memory Championship, I would get five massages just to stay relaxed. Stress is the worst enemy to your memory.

Moving on, avoid excessive sugar. The hippocampus is a part of your brain that is very sensitive to sugar.

The hippocampus plays an important part in learning, memory, and your long-term memory. It even plays a role in Alzheimer's disease and depression. So avoid excessive sugar for a better memory.

All right. The next one is a no-brainer, all right? Pun intended. Avoid excessive alcohol. For scientific reasons only, I have taken alcohol and tried to memorize at the same time. I don't have to tell you the results. You know the results. It's going to hurt your memory in the current short-term memory, but it also has very damaging effects in your long-term memory over time. Avoid excessive alcohol. Now with that said, our next point, studies have shown that small amounts of alcohol and maybe having a glass of wine a day is actually good for your memory. So go have some alcohol in moderation to improve your memory, and you can thank me.

Now, this next one is important. How many times have you been introduced to somebody and then six weeks later you meet them and what do you say? Oh, I am so good with faces. I will never forget a face. I just can't think of your name. Why? Because you saw the face; you never saw the name. The mind remembers what it sees.

So, if you want to start remembering stuff, you have to be able to turn it into a picture and you have to be able to see it. When you hear the number 21, no longer think of the number 21. Think of a deck of cards for the game Blackjack. Whenever you hear the name Steve, no longer think of the name Steve; think of a stove and imagine you were cooking Steve. Whatever you want to remember, turn it into a picture and your brain is going to remember it much more. You remember what you see more than what you just hear.

Now this last one is my favorite way to improve your memory: the habit of

using the Mind Palace. The Mind Palace is essentially when you memorize a map of a house, you stand in the doorway of the room in your house, and you count 5 pieces of furniture in that room – 1, 2, 3, 4, 5. You go to the next room and you count 5 pieces of furniture in that room – 6, 7, 8, 9, and 10. You do this in each room of your house until you have 20, 30, 40, or 50 pieces of furniture memorized. Then you take whatever you want to memorize and you imagine it around pieces of furniture in the Mind Palace.

If the first word you want to memorize is a washing machine for George Washington, then you imagine a washing machine on your first piece of furniture.

If the second word you want to memorize is the second president, Adams, you see a dam – you turn it into a picture, and you see it on the second piece of furniture in your Mind Palace. The Mind Palace is, without question, my favorite way to improve your memory technique.

Unit 12 Video 2

Uncovering The Brain's Biggest Secret

In the late 1860s, scientists believed they were on the verge of uncovering the brain's biggest secret. They already knew the brain controlled the body through electrical impulses. The question was, how did these signals travel through the body without changing or degrading? It seemed that perfectly transmitting these impulses would require them to travel uninterrupted along some kind of tissue. This idea, called reticular theory, imagined the nervous system as a massive web of tissue that physically connected every nerve cell in the body.

Reticular theory captivated the field with its elegant simplicity. But soon, a young artist would cut through this conjecture, and sketch a bold new vision of how our brains work.

60 years before reticular theory was born, developments in microscope technology revealed cells to be the building blocks of organic tissue. This finding was revolutionary, but early microscopes struggled to provide additional details. The technology was especially challenging for researchers studying the brain.

Soft nervous tissue was delicate and difficult to work with. And even when researchers were able to get it under the microscope, the tissue was so densely packed it was impossible to see much.

To improve their view, scientists began experimenting with special staining techniques designed to provide clarity through contrast. The most effective came courtesy of Camillo Golgi in 1873.

First, Golgi hardened the brain tissue with potassium dichromate to prevent cells from deforming during handling. Then he doused the tissue in silver nitrate, which visibly accumulated in nerve cells. Known as the “black reaction,” Golgi's Method finally allowed researchers to see the entire cell body of what would later be named the neuron. The stain even highlighted the fibrous branches that shot off from the cell in different directions. Images of these branches became hazy at the ends, making it difficult to determine exactly how they fit into the larger network. But Golgi concluded that these branches connected, forming a web of tissue comprising the entire nervous system.

14 years later, a young scientist and aspiring artist named Santiago Ramón y Cajal began to build on Golgi's work. While writing a book about microscopic imaging, he came across a picture of a cell treated with Golgi's stain. Cajal was in awe of its exquisite detail – both as a scientist and an artist.

He soon set out to improve Golgi's stain even further and create more detailed references for his artwork. By staining the tissue twice in a specific time frame, Cajal found he could stain a greater number of neurons with better resolution. And what these new slides revealed would upend reticular theory – the branches reaching out from each nerve cell were not physically connected to any other tissue. So how were these individual cells transmitting electrical signals?

By studying and sketching them countless times, Cajal developed a bold, new hypothesis. Instead of electrical signals traveling uninterrupted across a network of fibers, he proposed that signals were somehow jumping from cell to cell in a linear chain of activation. The idea that electrical signals could travel this way was completely unheard of when Cajal proposed it in 1889.

However, his massive collection of drawings supported his hypothesis from every angle. And in the mid-1900s, electron microscopy further supported this idea by revealing a membrane around each nerve cell keeping it separate from its neighbors. This formed the basis of the “neuron doctrine”, which proposed the brain's tissue was made up of many discrete cells, instead of one connected tissue.

The neuron doctrine laid the foundation for modern neuroscience, and allowed later researchers to discover that electrical impulses are constantly converted between chemical and electrical signals as they travel from neuron to neuron.

Both Golgi and Cajal received the Nobel Prize for their separate, but shared discoveries, and researchers still apply their theories and methods today. In this way, their legacies remain connected as discrete elements in a vast network of knowledge.

Keys

Unit 1 Video 1

C: 1) e; 2) i; 3) k; 4) h; 5) f; 6) a; 7) c; 8) j; 9) l; 10) d; 11) g; 12) b; 13) m

D: 1) false; 2) true; 3) true; 4) false; 5) true

E: 1) 21st; 2) World War II; 3) Queen Consort ; 4) responsibilities; 5) Scottish;
6) Duke of Cornwall

F: 1) mourned; 2) lifelong; 3) constitutional; 4) background; 5) endeavour;
6) charities; 7) heir; 8) assumes; 9) the marginal; 10) overseas

Unit 1 Video 2

C: 1) l; 2) e; 3) b; 4) k; 5) f; 6) j; 7) a; 8) i; 9) h; 10) m; 11) d; 12) g; 13) c

D: 1) true; 2) false; 3) true; 4) true; 5) true; 6) false; 7) false

E: 1) pressure; 2) nuclear; 3) left home; 4) alone; 5) 38%; 6) extended; 7) old archaic

F: 1) married; 2) slavery; 3) extended; 4) moral; 5) traditional; 6) chase;
7) nuclear; 8) share; 9) marrying; 10) divorcing

Unit 2 Video 1

C: 1) h; 2) k; 3) m; 4) e; 5) d; 6) a; 7) b; 8) j; 9) i; 10) f; 11) l; 12) g; 13) c

D: 1) true; 2) false; 3) true; 4) false; 5) false; 6) false;

E: 1) 1828; 2) BCE; 3) Hernán Cortés ; 4) a Swiss chocolatier named Daniel Peter; 5) child; 6) colonial association

F: 1) chocolate; 2) Mesoamerica; 3) BCE; 4) tree; 5) drink; 6) currency; 7) rituals; 8) delicacy; 9) introduction; 10) milk chocolate

Unit 2 Video 2

C: 1) c; 2) m; 3) e; 4) d; 5) b; 6) j; 7) g; 8) l; 9) i; 10) f; 11) a; 12) h; 13) k

D: 1) true; 2) true; 3) false; 4) false; 5) false; 6) true

E: 1) water; 2) Chinese; 3) Harvest; 4) 2; 5) less; 6) Fahrenheit

F: 1) Camellia sinensis; 2) flavor; 3) range; 4) ten; 5) harvested; 6) summer; 7) quality; 8) raw material; 9) soon; 10) reactions

Unit 3 Video 1

C: 1) c; 2) a; 3) f; 4) b; 5) h; 6) d; 7) j; 8) e; 9) g; 10) l; 11) m; 12) i; 13) k

D: 1) true; 2) false; 3) false; 4) true; 5) true; 6) true; 7) true; 8) false

E: 1) 1300 to 2000; 2) 50; 3) geometric figures; 4) 7 500; 5) foot; 6) morphed; 7) drone technology

F: 1) Peruvian; 2) collection; 3) ancient; 4) straight; 5) depictions; 6) human-like; 7) priest; 8) geoglyphs; 9) purpose; 10) gods; 11) ritual; 12) technology

Unit 3 Video 2

C: 1) c; 2) e; 3) a; 4) b; 5) d; 6) i; 7) f; 8) l; 9) g; 10) h; 11) m; 12) j; 13) k

D: 1) true; 2) true; 3) true; 4) true; 5) false; 6) true; 7) false; 8) true; 9) false; 10) true; 11) true; 12) false; 13) true; 14) true

E: 1) one in ten; 2) 17; 3) 1600; 4) flush; 5) 700,000; 6) negative; 7) range; 8) explore; 9) habitat; 10) table-like

F: 1) river 2) longest 3) biodiversity 4) environment 5) deforestation 6) hollow 7) grottos 8) volcano 9) ago 10) waterfall system 11) underground 12) habitat 13) unique 14) cableway

Unit 4 Video 1

C: 1) k; 2) e; 3) d; 4) f; 5) a; 6) h; 7) b; 8) l; 9) i; 10) g; 11) j; 12) m; 13) c

D: 1) false; 2) true; 3) false; 4) true; 5) true; 6) false

E: 1) identical; 2) predatory; 3) very first; 4) Egyptians; 5) 18th; 6) 300;

F: 1) descendants; 2) DNA; 3) fierce; 4) loyal; 5) transformation; 6) proximity; 7) breeding; 8) ancient; 9) selective; 10) wealthy

Unit 4 Video 2

C: 1) i; 2) c; 3) d; 4) a; 5) b; 6) f; 7) e; 8) j; 9) m; 10) l; 11) h; 12) g; 13) k

D: 1) false; 2) true; 3) true; 4) true; 5) true; 6) false

E: 1) 70,000; 2) jump; 3) intelligent; 4) dolphins; 5) upper lip; 6) 150,000

F: 1) land; 2) weigh; 3) pounds; 4) intelligent; 5) intellect; 6) problem-solve; 7) intelligence; 8) migration; 9) illegally; 10) decline

Unit 5 Video 1

C: 1) b; 2) e; 3) j; 4) m; 5) g; 6) k; 7) a; 8) i; 9) l; 10) c; 11) f; 12) h; 13) d

D: 1) true; 2) false; 3) false; 4) false; 5) true

E: 1) happier; 2) driving a Range Rover; 3) Prince Albert; 4) honeymoon; 5) 50000; 6) Prince Philip

F: 1) a property; 2) encounter; 3) to accommodate; 4) assumed; 5) acquired; 6) revenues; 7) notable; 8) untimely; 9) suspicions; 10) appointing

Unit 5 Video 2

C: 1) d; 2) g; 3) f; 4) a; 5) e; 6) c; 7) b; 8) i; 9) h; 10) l; 11) m; 12) j; 13) k

D: 1) true; 2) false; 3) false; 4) true; 5) false; 6) false; 7) true
E: 1) world; 2) Brazil; photographer, videographer; 3) Svalbard; 4) six; 5) maternity ward; 6) bears; 7) four; 8) Facebook
F: 1) edge; 2) guest; 3) ruled; 4) realized; 5) scared; 6) maternity ward; 7) shipped; 8) reindeer; 9) inner; 10) flourish

Unit 6 Video 1

C: 1) d; 2) a; 3) f; 4) b; 5) c; 6) i; 7) e; 8) g; 9) k; 10) h; 11) m; 12) j; 13) l
D: 1) true; 2) false; 3) true; 4) true; 5) false; 6) false; 7) false; 8) true
E: 1) 13; 2) boxing; 3) banned; 4) international
F: 1) religious; 2) Olympiads; 3) event; 4) chariot; 5) armor; 6) pentathlon; 7) prohibited; 8) pagan; 9) athletes; 10) cheers

Unit 6 Video 2

C: 1) d; 2) a; 3) f; 4) b; 5) i; 6) k; 7) c; 8) e; 9) l; 10) g; 11) h; 12) m; 13) j
D: 1) true; 2) true; 3) false; 4) true; 5) false; 6) false; 7) true
E: 1) knockout; 2) 10,000; 3) challenge; 4) oversized; 5) 1980s; 6) slam
F: 1) mental; 2) competitor; 3) surfing; 4) helmets; 5) cheese; 6) piddling; 7) unpredictable; 8) unsafe; 9) injured; 10) regatta

Unit 7 Video 1

C: 1) d; 2) f; 3) a; 4) h; 5) b; 6) m; 7) j; 8) c; 9) e; 10) l; 11) g; 12) i; 13) k
D: 1) true; 2) true; 3) true; 4) false; 5) true; 6) true; 7) true; 8) false; 9) false
E: 1) British; 2) 900; 3) dream; 4) 425; 5) surest; 6) plateau; 7) all; 8) waiting; 9) 15; 10) defeat
F: 1) died; 2) explorers; 3) brutal; 4) dream; 5) data; 6) man-hauling; 7) flag; 8) by the time; 9) heartbroken; 10) survivable; 11) collapsed; 12) sacrificed; 13) blizzard

Unit 7 Video 2

C: 1) c; 2) f; 3) h; 4) a; 5) b; 6) d; 7) j; 8) e; 9) l; 10) g; 11) m; 12) k; 13) i
D: 1) true; 2) true; 3) false; 4) true; 5) true
E: 1) subset; 2) 516; 3) route; 4) error; 5) fringe; 6) gonna
F: 1) climbing; 2) impression; 3) hike; 4) altitude; 5) fit; 6) survival; 7) error; 8) quick; 9) thrive; 10) fringe

Unit 8 Video 1

C: 1) d; 2) f; 3) h; 4) i; 5) b; 6) a; 7) e; 8) m; 9) k; 10) c; 11) l; 12) j; 13) g
D: 1) true; 2) true; 3) false; 4) false; 5) true
E: 1) including; 2) percent; 3) Atlantic; 4) could be; 5) desert's
F: 1) African; 2) rivers; 3) aquifers; 4) wetter; 5) rainforest; 6) moisture; 7) fertilizing; 8) destroyed; 9) expansion

Unit 8 Video 2

C: 1) d; 2) f; 3) e; 4) g; 5) b; 6) a; 7) c; 8) k; 9) h; 10) m; 11) i; 12) l; 13) j
D: 1) true; 2) false; 3) false; 4) true; 5) true
E: 1) was; 2) out; 3) communications; 4) 2,000; 5) desert
F: 1) world; 2) ultimate; 3) takeoff; 4) satisfying; 5) burners; 6) heating; 7) relief; 8) extraordinary; 9) dregs; 10) foolish

Unit 9 Video 1

C: 1) f; 2) e; 3) b; 4) g; 5) c; 6) a; 7) h; 8) k; 9) i; 10) j; 11) l; 12) m; 13) d
D: 1) true; 2) true; 3) false; 4) false; 5) true; 6) true
E: 1) mobile; 2) strength; 3) adult human; 4) balance; 5) flexible; 6) simulation
F: 1) humanoid-robot; 2) demonstrate; 3) agility; 4) hydraulic; 5) battery; 6) mobility; 7) 3D printer; 8) parkour; 9) movements; 10) backflip

Unit 9 Video 2

C: 1) g; 2) d; 3) c; 4) f; 5) m; 6) h; 7) j; 8) l; 9) i; 10) b; 11) e; 12) k; 13) a

D: 1) true; 2) false; 3) true; 4) true; 5) false; 6) false

E: 1) world largest; 2) one year; 3) more; 4) most powerful; 5) 1994; 6) running water

F: 1) Three Gorges Dam; 2) energy; 3) 1994; 4) turbines; 5) grids; 6) ambition;

7) flood; 8) upstream; 9) sites; 10) controversial

Unit 10 Video 1

C: 1) l; 2) e; 3) j; 4) g; 5) c; 6) h; 7) a; 8) b; 9) f; 10) d; 11) m; 12) k; 13) i

D: 1) false; 2) false; 3) true; 4) true; 5) false; 6) true; 7) false

E: 1) Australia; 2) 2000, Pacific; 3) millions; 4) city; 5) rainforest; 6) reef; 7) 33

F: 1) embrace; 2) lacy; 3) edge; 4) creatures; 5) diverse; 6) habitats; 7) slugs; 8) designated;

9) extractive; 10) enduring

Unit 10 Video 2

C: 1) b; 2) a; 3) g; 4) e; 5) d; 6) i; 7) c; 8) h; 9) f; 10) m; 11) l; 12) k; 13) j

D: 1) true; 2) false; 3) false; 4) true; 5) false; 6) true; 7) false; 8) true

E: 1) equipment; 2) 180; 3) boat; 4) power; 5) secure; 6) legs; 7) head

F: 1) increase; 2) approach; 3) grab; 4) slightly; 5) grasp; 6) extended; 7) mast; 8) steer;

9) obstructions; 10) tack

Unit 11 Video 1

C: 1) g; 2) i; 3) d; 4) c; 5) f; 6) e; 7) a; 8) j; 9) b; 10) m; 11) l; 12) k; 13) h

D: 1) false; 2) true; 3) false; 4) true; 5) false; 6) true; 7) true

E: 1) 1096; 2) monument; 3) United Kingdom; 4) police station; 5) first; 6) Camera; 7) church

F: 1) campus; 2) alumni; 3) building; 4) previously; 5) profits; 6) presented; 7) intended;

8) resemblance; 9) surviving; 10) altered

Unit 11 Video 2

C: 1) d; 2) c; 3) b; 4) a; 5) m; 6) k; 7) j; 8) i; 9) h; 10) g; 11) f; 12) m; 13) e

D: 1) true; 2) false; 3) true; 4) false; 5) true; 6) false; 7) false

E: 1) before; 2) world; 3) prides; 4) forensic investigation; 5) applications; 6) doesn't depict; 7) founder

F: 1) roots; 2) established; 3) admired; 4) awards; 5) quality; 6) multiple; 7) holdings;

8) homongous; 9)boasts; 10) double

Unit 12 Video 1

C: 1) m; 2) l; 3) k; 4) j; 5) i; 6) h; 7) f; 8) g; 9) e; 10) d; 11) c; 12) b; 13) a

D: 1) true; 2) false; 3) false; 4) true; 5) false

E: 1) water; 2) shown, is; 3) restricted; 4) memorize; 5) see; 6) Alzheimer's

F: 1) stressed; 2) improve; 3) habit; 4) crucial; 5) enemy; 6) meditate; 7) excessive; 8) damaging;

9) stuff; 10) technique

Unit 12 Video 2

C: 1) d; 2) c; 3) b; 4) a; 5) m; 6) l; 7) k; 8) i; 9) j; 10) h; 11) g; 12) f; 13) e

D: 1) true; 2) false; 3) true; 4) true; 5) true; 6) false; 7) false

E: 1) impulses; 2) brains; 3) provide; 4) tissue; 5) 14; 6) hypothesis; 7) Nobel

F: 1) verge; 2) impulses; 3) degrading; 4) reticular; 5) captivated; 6) simplicity; 7) conjecture;

8) sketch; 9) revealed; 10) struggled

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Навчальне видання

**Іщенко Тетяна Валеріївна
Козубай Інна Віталіївна
Максимова Анна Ярославівна
Нікітіна Ірина Петрівна**

**ВИВЧЕННЯ ІНОЗЕМНОЇ МОВИ
ЗА ВІДЕОМАТЕРІАЛАМИ**

Навчальний посібник

(англійською мовою)

Редактор, оригінал-макет – *А. В. Самотуга*

Підп. до друку 19.06.2024. Формат 60х84/8. Друк – цифровий. Гарнітура – Times.
Ум.-друк. арк. 20,93. Обл.-вид. арк. 22,50. Наклад – 25 прим. Зам. № 29/24-нп

Надруковано у Дніпровському державному університеті внутрішніх справ
49005, м. Дніпро, просп. Науки, 26, sed@dduvs.edu.ua
Свідоцтво про внесення до Державного реєстру ДК № 8112 від 13.06.2024