

**English**

**Pronunciation**

**Greek**

**Definition**

**Example Sentence**

**Unit 1 Pushing the Limits**

**Page 10**

<b>push oneself</b> (v)	/pʊʃ wʌnˈself/
<b>limit</b> (n)	/'lɪmɪt/
<b>pain</b> (n)	/peɪn/
<b>determination</b> (n)	/dɪ.tɪ.ʒ.(r)ˈmɪːnɪʃ(ə)n/
<b>enable</b> (v)	/'ɪnˌeɪb(ə)/
<b>extreme</b> (adj)	/'tʃkː'stri:m/
<b>mental</b> (adj)	/'ment(ə)/
<b>physical</b> (adj)	/'fɪzɪk(ə)/
<b>opponent</b> (n)	/'əːpəʊnənt/
<b>hazardous</b> (adj)	/'hæzə(r)dəs/

σπρώττε τον εαυτό σας
όριο
πόνος
επιμονή
κάνω δυνατό
άκρο
διανοητικός
φυσικός
αντίπαλος
επικίνδυνος

When you **push yourself**, you make a very strong effort to succeed or to get past a difficulty. A person's **limit** is the most extreme or challenging thing they can stand without failing or stopping. **Pain** is an unpleasant and uncomfortable feeling in your body. When someone has **determination**, they have decided to do something, no matter how difficult it is. To **enable** someone is to make it possible for them to do something they could not do before. An **extreme** event or condition is one that is well beyond what is normal or typical. **Mental** refers to anything connected with the mind or with thinking. **Physical** refers to anything connected with your body and its parts. An **opponent** is someone that you are competing with or that you disagree with. Something that is **hazardous** is dangerous or risky.

You really have to **push yourself** to run a marathon. He discovered his limit while climbing the mountain. Swimming all day causes me **pain** in my whole body. The players played with **determination** because they wanted to win. Good trainers **enable** me to run faster. Hurricanes and blizzards are **extreme** weather events. A difficult puzzle provides a good **mental** challenge. Some sports require a great deal of **physical** strength. My **opponent** was much stronger and won the game. When climbing in the snow you need to prepare for **hazardous** conditions.

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<b>obstacle</b> (n)	/'ɒbstæk(ə)/
<b>overcome</b> (v)	/'əʊvə(r)'kʌm/
<b>endurance</b> (n)	/'ɪnˌdʒʊərəns/
<b>role model</b> (n)	/'rəʊlˈmɒd(ə)/

εμπόδιο
καταβάλλω
αντοχή
πρότυπο

An **obstacle** is anything that stands in the way of progress, development or success. To **overcome** a problem, limitation or difficulty is to have the ability to take control of it. **Endurance** is the ability and strength to keep doing something for an extended period of time. A **role model** is someone whose qualities or achievements make you want to be as good as they are.

**Obstacles** come between us and our goals. I need to **overcome** my fear of heights. Runners need **endurance** to go long distances. Parents, teachers and athletes can all be **role models**.

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<b>achieve</b> (v)	/ə'tʃi:v/
<b>boundary</b> (n)	/'baʊnd(ə)rɪ/
<b>unbelievable</b> (adj)	/'ʌnbɪːli:vəb(ə)/
<b>unreachable</b> (adj)	/'ʌnˈri:tʃəb(ə)/

φέρνω σε πέρας
σύνορο
απίστευτος
απρόσιτος

To **achieve** a goal or objective is to be successful and get the result that you wanted. A **boundary** is a limit between things. People say something is **unbelievable** when it is unexpected and surprising, and therefore hard to believe. Something that is **unreachable** cannot be obtained or achieved.

With hard work and determination, you can **achieve** your goals. Many extreme athletes feel that there are no **boundaries** for what they can do. Skydiving can be an **unbelievable** experience. When you're climbing, the top of the mountain may seem **unreachable**, but you can get there!

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<b>non-traditional</b> (adj)	/nɒn trə'dɪʃ(ə)nəl/
<b>event</b> (n)	/'i:vent/
<b>struggle</b> (v)	/'strʌɡ(ə)/
<b>represent</b> (v)	/'reprɪːzɛnt/

Μη παραδοσιακά
Εκδήλωση
παλεύω
εκπροσωπώ

**Non-traditional** refers to something that is new, unusual, or not yet fully accepted by people. An **event** is a planned activity, such as a celebration or a competition. Someone who **struggles** puts in a lot of effort and faces a lot of problems in order to achieve a goal. When you **represent** someone or something, you act or speak for that group.

Extreme ironing is a **non-traditional** sport. Maths Olympiads are serious, competitive **events**. Some students struggle for hours to solve problems. Intelligent students **represent** their schools at science competitions.

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<b>beyond</b> (prep)	/'biːjɒnd/
<b>consequence</b> (n)	/'kɒnsɪkwəns/
<b>in control</b> (phr)	/'ɪn kənˈtrəʊl/
<b>limb</b> (n)	/'lɪm/
<b>peak performance</b> (n)	/'pi:k pə(r)'fɔ:(r)məns/

πέρα
συνέπεια
υπό έλεγχο
άκρο
κορυφαία απόδοση

**Beyond** means further than or past. A **consequence** is a result or outcome of another action or event. When you are **in control** of something, you have the ability to make it do what you want it to. Your arms and legs are your **limbs**. **Peak performance** is the highest level of functioning for a machine, person or animal.

Extreme athletes go **beyond** physical and mental boundaries. When you fall, there can be **consequences**, like a broken leg. Being **in control** of your body is important when skiing. Many kinds of sports can result in broken **limbs** when accidents happen. Olympic athletes train to reach their **peak performance** levels.

**Unit 2 It Takes a Village**

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<b>crisis</b> (n)	/'kraɪsɪs/
<b>adventure</b> (n)	/'ædˌventʃə/
<b>expand</b> (n)	/'ɪkˌspænd/
<b>humanitarian</b> (n)	/'hjuːˌmæniːˈteəriən/
<b>measure</b> (n)	/'meʒə(r)/
<b>scale</b> (v)	/'skeɪl/
<b>crowdsourcing</b> (n)	/'kraʊdˌsɔ:(r)sɪŋ/

κρίση
περιπέτεια
επεκτείνω
φιλάνθρωπος
μετράω
χρηματοδότηση από το κοινό
χρηματοδότηση από τον κόσμο

A **crisis** is an urgent, difficult or dangerous situation. An **adventure** is an exciting experience that may be fun or may be dangerous. If something **expands**, it becomes larger in size. A **humanitarian** is involved in improving people's lives and reducing suffering. If you **measure** something, you find the exact size, amount, speed, etc. of something using a special tool or special equipment. **Scale** is the size of something, especially if it's big. **Crowdsourcing** is the practice of getting help to develop something from large groups of people, often members of the public using the Internet.

We want to help each other out in times of **crisis**. Going to an underwater cave would be an exciting **adventure**. Over time, the communities have **expanded** to become a 'global village'. Meier has created a network of 'digital **humanitarians**', who produce crisis maps. They produce crisis maps to **measure** the scale of a disaster. The produce crisis maps to measure the **scale** of a disaster. The images are mostly gathered using **crowdsourcing** via the Internet.

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<b>upload</b> (v)	/'ʌpˌlɔ:əd/
<b>evidence</b> (n)	/'eɪvɪd(ə)ns/
<b>generate</b> (v)	/'dʒenəreɪt/
<b>amount</b> (n)	/'əːməʊnt/
<b>data</b> (n)	/'deɪtə/
<b>process</b> (v)	/'prɒses/
<b>the big picture</b> (n)	/'ðə bɪɡˈpɪktʃə(r)/
<b>monitor</b> (v)	/'mɒnɪtə(r)/

μεταφόρτωση
απόδειξη
παράγω
ποσό
δεδομένα
επεξεργάζομαι, διαδικασία
η μεγάλη εικόνα
παρακολουθώ

When you **upload** data, a file or an image, you send it from your own device to another computer. **Evidence** is anything that proves that something is true. To **generate** something is to create it or cause it to exist. An **amount** is how much of something there is. **Data** is any kind of information, usually in the form of text or numbers, that is stored on a computer. To **process** information is to learn it and then put it to use in some way. **The big picture** is everything that is connected to a situation. To **monitor** a situation is to check it regularly to see what is happening.

When you **upload** a photo to the Internet, anyone can see it. Crisis mapping is **evidence** that anyone can help those in need. Computers can analyse information and **generate** solutions. After a disaster, large **amounts** of water and food must be delivered to the scene. Analysing **data** can help us to better understand what's happening. Computers can **process** information more quickly than humans. You are one person, but you can make a difference in **the big picture**. Rescuers can use technology to **monitor** conditions after a disaster.

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<b>collaboration</b> (n)	/'kɔ:ləbə'reɪʃ(ə)n/
<b>co-ordinate</b> (v)	/'kɔ:ɔ:(r)dɪneɪt/
<b>relief</b> (n)	/'ri:lɪf/
<b>situation</b> (n)	/'sɪtʃu'eɪʃ(ə)n/
<b>update</b> (n)	/'ʌpˌdeɪt/

συνεργασία
συντονίζω
ανακούφιση
κατάσταση
εκσυγχρονίζω

**Collaboration** happens when people work together to get something done. When you **co-ordinate** an effort or activity, you manage the different parts of it in order to get a good result. In emergency situations, **relief** is the help that is given to victims, in the form of food, water, supplies or money. A **situation** is anything that is happening at a certain time and place. An **update** is new information about a situation that is changing.

In emergencies, **collaboration** among rescue workers is very important. Technology helps workers **co-ordinate** their efforts. Food, blankets and water can provide **relief** to victims of disaster. The earthquake has created a dangerous **situation** in the city. The latest **update** gives new information about the number of people who need help.

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<b>volunteer</b> (v)	/'vɒlən'tʃə(r)/
<b>help out</b> (ph v)	/'help aʊt/
<b>fundraiser</b> (n)	/'fʌndˌreɪzə(r)/
<b>cause</b> (n)	/'kɔ:z/
<b>network</b> (n)	/'netˌwɜ:(r)k/

εθελοντής
βοηθώ
Έρανος
αίτια
δίκτυο

When you **volunteer** you offer to help with something, even though there is no pay involved. When you **help** someone **out**, you help them by doing something useful or kind, or by giving them money. A **fundraiser** is an event where people give money for someone or something that needs it. A **cause** is an idea or an organisation that people support. A **network** is a group of people who are connected in some way.

You **volunteer** to help others online or in your community. Gina **helps out** at the local charity shop every Wednesday. A cake sale is a great idea for a **fundraiser**. He wants to give to a good **cause**, so he helps the homeless. She joined a **network** of people who keep the streets clean.

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<b>empower</b> (v)	/'ɪmˌpəʊə(r)/
<b>engineer</b> (v)	/'endʒɪˈnɪə(r)/

εξουσιοδοτώ
μηχανικό

To **empower** someone is to give them knowledge or skills that makes them more confident and successful. When you **engineer** something, you design or create it using scientific or technical knowledge.

Role models can **empower** teens to make a difference. It is possible to engineer a new device using old parts.

<b>face</b> (v)	/feɪs/	αντικρίζω
<b>generation</b> (n)	/ˌdʒenəˈreɪʃ(ə)n/	γενιά
<b>innovation</b> (n)	/ˌɪnəʊˈveɪʃ(ə)n/	καινοτομία

### Unit 3 Food Matters

<b>Page 44</b>		
<b>harvest</b> (v)	/ˈhɑː(r)vɪst/	συγκομιδών - μαζεύω
<b>conservationist</b> (n)	/ˌkɒnsə(r)ˈveɪʃ(ə)nɪst/	Συντηρητής
<b>diverse</b> (adj)	/daɪˈvɜː(r)s/	ποικίλος
<b>reflection</b> (n)	/rɪˈflekʃ(ə)n/	αντανάκλαση
<b>globalisation</b> (n)	/ˌɡləʊbəlaɪˈzeɪʃ(ə)n/	Παγκοσμιοποίηση

<b>Page 45</b>		
<b>taste</b> (n)	/teɪst/	γεύση
<b>packaged</b> (adj)	/ˈpækɪdʒd/	Συσκευασμένα
<b>convenient</b> (adj)	/kənˈviːniənt/	βολικός
<b>wholesome</b> (adj)	/ˈhəʊls(ə)m/	υγιεινός
<b>local</b> (adj)	/ˈləʊk(ə)/	τοπικός
<b>commercial</b> (adj)	/kəˈmɜː(r)ʃ(ə)/	εμπορικός

<b>Page 46</b>		
<b>attitude</b> (n)	/ˈætɪˌtjuːd/	στάση
<b>grateful</b> (adj)	/ˈɡreɪtʃ(ə)/	ευγνώμων
<b>main course</b> (n)	/meɪnˈkɔː(r)s/	κύριο πιάτο

<b>Page 49</b>		
<b>revolutionary</b> (n)	/ˌrevəˈluːʃ(ə)n(ə)ri/	επαναστατικός
<b>protein</b> (n)	/ˈpraʊtɪn/	πρωτεΐνη
<b>restore</b> (v)	/rɪˈstɔː(r)/	επαναφέρω
<b>spice</b> (n)	/spaɪs/	μπαχαρικό
<b>recipe</b> (n)	/ˈresəpi/	συνταγή

<b>Page 50</b>		
<b>consistent</b> (adj)	/kənˈsɪstənt/	συνεπής
<b>organic</b> (adj)	/ɔː(r)ˈɡæɪnɪk/	οργανικός
<b>sustainable</b> (adj)	/səˈsteɪnəb(ə)/	διατηρήσιμο
<b>vertical</b> (adj)	/ˈvɜː(r)tɪk(ə)/	κατακόρυφος

### Unit 4 The Footprint of Fun

<b>Page 60</b>		
<b>amusement</b> (n)	/əˈmjʊːzmənt/	διασκέδαση
<b>enjoyable</b> (adj)	/ɪnˈdʒɔɪəb(ə)/	απολαυστικός
<b>attraction</b> (n)	/əˈtrækʃ(ə)n/	αξιοθεατό
<b>consume</b> (v)	/kənˈsjʊːm/	καταναλώνω
<b>excessive</b> (adj)	/ɪkˈsesɪv/	υπερβολικό
<b>facility</b> (n)	/fəˈsɪlɪti/	εγκατάσταση
<b>litter</b> (n)	/ˈlɪtə(r)/	σκουπίδια

<b>Page 61</b>		
<b>industry</b> (n)	/ˈɪndəstri/	βιομηχανία
<b>compost</b> (v)	/ˈkɒmpɒst/	μετατρέπω σε λίπασμα
<b>sensitive</b> (adj)	/ˈsensətɪv/	ευαίσθητος
<b>participate</b> (v)	/pɑː(r)ˈtɪsɪpeɪt/	συμμετέχω
<b>movement</b> (n)	/ˈmuːvmənt/	κίνηση
<b>result</b> (n)	/rɪˈzʌlt/	αποτέλεσμα
<b>economic</b> (adj)	/ˌiːkəˈnɒmɪk/	οικονομικός
<b>accessible</b> (adj)	/əkˈsesəb(ə)/	προσιτός

<b>Page 62</b>		
<b>benefit</b> (n)	/ˈbenɪfɪt/	όφελος
<b>non-profit</b> (adj)	/nɒnˈprɒfɪt/	μη κερδοσκοπικός
<b>proactive</b> (adj)	/prəʊˈæktɪv/	ενεργό
<b>take action</b>	(phr) /teɪkˈækʃ(ə)n/	ανάλαβε δράση

<b>Page 65</b>		
<b>demand</b> (n)	/dɪˈmɑːnd/	ζητώ
<b>damage</b> (n)	/ˈdæmɪdʒ/	βλάβη
<b>challenge</b> (v)	/ˈtʃæləndʒ/	πρόκληση
<b>waste</b> (n)	/weɪst/	απόβλητα
<b>harm</b> (v)	/hɑː(r)m/	κανω κακό

<b>Page 66</b>		
<b>cost</b> (n)	/kɒst/	κόστος
<b>development</b> (n)	/dɪˈveləpmənt/	ανάπτυξη
<b>maintain</b> (v)	/meɪnˈteɪn/	διατηρώ
<b>venue</b> (n)	/ˈvenjuː/	τόπος συναντήσεως

### Unit 5 Why We Explore

<b>Page 79</b>		
<b>knowledge</b> (n)	/ˈnɒlɪdʒ/	η γνώση
<b>investigate</b> (v)	/ɪnˈvestɪgeɪt/	ερευνώ
<b>pioneer</b> (n)	/ˌpaɪəˈnɪə(r)/	πρωτοπόρος
<b>research</b> (v)	/rɪˈsɜː(r)tʃ/	έρευνα
<b>drive</b> (v)	/draɪv/	οδηγώ

When a person or group **faces** a problem or situation, it means they have to deal with it.  
A **generation** is the whole group of people who are born around the same time.  
An **innovation** is a new idea that is used in some practical way.

To **harvest** is to gather a crop from the fields.  
A **conservationist** works to protect plant and animal species.  
If something is **diverse**, it is made up of things or people that are different from one another.  
When something is a **reflection** of another thing or idea, it shows characteristics of that thing or idea.  
**Globalisation** is the process of connecting people and cultures around the world through the easy exchange of information, products and travel.

**Taste** is the general opinion that people have about what they like.  
A **packaged** product is wrapped up and sold in a box, bag, wrapper or carton.  
When something is **convenient**, it's easy to access, obtain, prepare or do.  
Food is **wholesome** when it is fresh, pure and good for you.  
When a place is **local**, it is nearby. When a product is **local**, it comes from a nearby place.  
Something **commercial** is connected with business and making money.

Your **attitude** about something is the way you feel about it.  
Someone who is **grateful** has a feeling of appreciation for what has happened or what someone has done.  
A **main course** is the main dish of a meal.

A **revolutionary** is someone who completely changes the way that many people think or do something.  
**Protein** is a substance that our bodies need in order to remain healthy. It is found in foods like nuts, eggs and meat.  
When you **restore** something, you return it to the condition that it was in before.  
A **spice** is a natural substance such as pepper, cinnamon or thyme that gives flavour to food.  
A **recipe** is a list of ingredients and step-by-step instructions for cooking them.

When you can depend on something to almost always be the same, it is **consistent**.  
**Organic** foods are grown without chemicals.  
Something is **sustainable** if you can get it, grow it or do it without harming the environment.  
**Vertical** means having an up-and-down position, like a ladder or a flagpole.

An **amusement** is an activity, experience or performance that entertains people.  
When an experience is **enjoyable**, it is fun and pleasurable.  
An **attraction** is something that people want to see or experience.  
When you **consume** something, you use it. When you **consume** food, you eat it.  
**Excessive** means too much, or well beyond the usual amount.  
A **facility** is a building, structure, or piece of equipment that is designed for a particular purpose.  
**Litter** is any item that people throw on the ground instead of putting it in a litter bin.

An **industry** is all the companies that are in the business of making or doing the same thing.  
When you **compost**, you re-use food waste to fertilise plants.  
If you are **sensitive** to something, you are aware of it and act carefully around it.  
When you **participate** in an activity, you do it or take part in it.  
A **movement** forms when a lot of people work together to create change.  
A **result** is something that happens because of something else.  
**Economic** means connected with the process of buying and selling.  
When something is **accessible**, it is able to be reached or obtained easily.

A **benefit** is a good or positive effect.  
A **non-profit** organisation does not have the goal of making money.  
When you are **proactive** you do something to stop a problem before it happens.  
When you **take action**, you do something to create a change.

The **demand** for an item is how much people want or need that particular thing.  
**Damage** is the harm that is caused to a person, place or thing as the result of an action.  
When you **challenge** a person, you invite them to do something that may not be easy.  
**Waste** is the unwanted part that is left after something is used.  
If one thing **harms** another, it hurts, injures or damages it.

A **cost** is something that must be paid for with money or effort.  
**Development** is any work in an area that brings improvement or advancement.  
When you **maintain** a place or structure, you take care of it to keep it in good condition.  
A **venue** is a place where a particular event happens, such as a party or a concert.

**Knowledge** is information learned from education and experience.  
To **investigate** something is to really study it in order to learn everything there is to know about it.  
A **pioneer** is someone who does something or goes somewhere before anyone else.  
To **research** a topic is to study it carefully in order to learn new information about it.  
If something **drives** you, that thing makes you want to work hard.

Today's young people **face** many challenging situations.  
Many people work to provide a better world for future **generations**.  
New **innovations** can improve the lives of many people.

We **harvest** the vegetables from the garden as soon as they are ready.  
The park was created after a group of **conservationists** met with the council.  
In a **diverse** community, you can try foods from many cultures.  
How we dress and what we eat is a **reflection** of our culture.  
**Globalisation** helps people to exchange ideas and products across cultures.

People's **taste** in foods has changed as new foods become available.  
Biscuits and sweets are popular **packaged** foods.  
Busy people often look for **convenient** meals that can be prepared quickly.  
**Wholesome** foods, such as fruit and vegetables give our bodies what they need.  
Food from **local** farms can be fresh and delicious.  
**Commercial** farmers raise crops and then sell them to stores.

I changed my **attitude** towards food after learning more about where it comes from.  
My friends were **grateful** for the meal I prepared for them.  
I had a tasty chicken curry for my **main course**.

A food **revolutionary** changes how people eat.  
Meat, fish and chicken contain **protein** that helps our bodies build muscles.  
Scientists are working to **restore** populations of overfished species.  
Adding **spices** can help make a dish taste better.  
It is important to follow the **recipe** so that your dishes taste good.

People need a **consistent** supply of food.  
More and more people are buying **organic** foods.  
It is best to choose foods that are produced in a **sustainable** way.  
**Vertical** farms use less space than traditional farms.

**Amusement** parks have rides, shows and games.  
An outdoor concert on a warm evening can be very **enjoyable**.  
Big cities have many tourist **attractions**.  
A lot of food is **consumed** at sporting events.  
After the park closed, there was an **excessive** amount of rubbish on the ground.  
The park had picnic facilities near the fountain.  
After the concert, workers cleaned up **litter** in the stadium.

People in the entertainment industry should be role models for sustainability.  
Many schools have bins for students to **compost** their food instead of throwing it away.  
We all need to be **sensitive** to the needs of our planet.  
Are you **participating** in the beach clean up this Saturday?  
Many amusement parks are part of the green **movement**.  
Air pollution can be the **result** of a big public event.  
Going green can have a positive **economic** impact on a company.  
Many parks are only **accessible** by car.

Being green can have environmental and economic **benefits**.  
Several **non-profit** organisations worked together to promote sustainability.  
Concert organisers are often **proactive** about preventing litter.  
You can **take action** by re-using your things instead of throwing them away.

The **demand** for bottled water is much higher than it was 50 years ago.  
The overuse of plastic is causing **damage** to the environment.  
Let's **challenge** ourselves to reduce our use of plastic products.  
Plastic **waste** can stay in a landfill for 500 years.  
Litter in the ocean **harms** marine animals.

There are environmental and economic **costs** to hosting the Olympic Games.  
The Olympic Games bring **development** to a region.  
It costs a lot of money to **maintain** the many bridges in this town.  
Many large **venues** have been constructed for Olympic Games.

Doctors have a great deal of **knowledge** about the human body.  
New discoveries are made when we **investigate** unknown places.  
Astronauts are **pioneers** of space.  
Sylvia Earle **researches** marine life.  
The desire to learn new things **drives** people to keep exploring.

<b>purpose</b> (n)	/ˈpɜː(r)pəs/	σκοπός
<b>remote</b> (adj)	/riˈməʊt/	μακρινός
<b>curious</b> (adj)	/ˈkjʊəriəs/	περίεργος
<b>exciting</b> (adj)	/ɪkˈsaɪtɪŋ/	συναρπαστικός
<b>expert</b> (adj)	/ˈɛkspɜː(r)t/	ειδικός
<b>high-tech</b> (adj)	/haɪˈtek/	υψηλής τεχνολογίας
<b>look into</b> (ph v)	/lʊk ˈɪntə/	να εξετάσω
<b>encounter</b> (v)	/ɪnˈkaʊntə(r)/	συνάντηση

#### Page 80

<b>achievement</b> (n)	/əˈtʃiːvmənt/	κατόρθωμα
<b>encourage</b> (v)	/ɪnˈkʌrɪdʒ/	ενθαρρύνω
<b>engage in</b> (v)	/ɪnˈɡeɪdʒ ɪn/	συμμετάσχω
<b>require</b> (v)	/rɪˈkwaɪə(r)/	απαιτώ

#### Page 83

<b>route</b> (n)	/ruːt/	Διαδρομή
<b>motion</b> (n)	/ˈməʊʃ(ə)n/	κίνηση
<b>globe</b> (n)	/ɡləʊb/	σφαίρα
<b>set a record</b> (phr)	/set ə ˈrekɔː(r)d/	θέτω ένα ρεκόρ
<b>educate</b> (v)	/ˈedʒukeɪt/	εκπαιδεύω

#### Page 84

<b>associated</b> (adj)	/əˈsəʊsi ətɪd/	Συνδεδεμένοι
<b>gene</b> (n)	/dʒiːn/	γονίδιο
<b>motivate</b> (v)	/ˈməʊtɪveɪt/	ενθαρρύνω
<b>trait</b> (n)	/treɪt/	χαρακτηριστικό

#### Unit 6 Giants

#### Page 94

<b>catastrophe</b> (n)	/kəˈtæstrəfi/	καταστροφή
<b>enormous</b> (adj)	/ɪˈnɔː(r)məs/	τεράστιος
<b>ancient</b> (adj)	/ˈeɪnʃ(ə)nt/	αρχαίος
<b>frightening</b> (adj)	/ˈfraɪt(ə)nɪŋ/	τρομαχτικός
<b>huge</b> (adj)	/hjuːdʒ/	τεράστιος
<b>stomach</b> (n)	/ˈstʌmək/	στομάχι
<b>diameter</b> (n)	/ˈdaɪˌæmɪtə(r)/	διάμετρος
<b>jaw</b> (n)	/dʒɑː/	σαγόني
<b>heart</b> (n)	/hɑː(r)t/	καρδιά
<b>prehistoric</b> (adj)	/ˌpriːhɪˈstɔːrɪk/	προϊστορικός
<b>weigh</b> (v)	/weɪ/	ζυγίζω

#### Page 95

<b>develop</b> (v)	/dɪˈveləp/	αναπτύσσω
<b>extinction</b> (n)	/ɪkˈstɪŋkʃ(ə)n/	εξαφάνιση
<b>exception to the rule</b> (n)	/ɪkˈsepʃ(ə)n tə ðə ruːl/	Εξαιρεση από τον κανόνα

#### Page 96

<b>carnivore</b> (n)	/ˈkɑː(r)nɪvɔː(r)/	σαρκοφάγο ζώο
<b>gigantic</b> (adj)	/dʒaɪˈɡæntɪk/	πελώριος
<b>herbivore</b> (n)	/ˈhɜː(r)bɪˌvɔː(r)/	φυτοφάγο ζωο
<b>massive</b> (adj)	/ˈmæsv/	ογκώδης

#### Page 99

<b>era</b> (n)	/ɪərə/	εποχή
<b>times</b> (prep)	/taɪmz/	φορές
<b>fierce</b> (adj)	/fɪə(r)s/	άγριος
<b>prey on</b> (ph v)	/preɪ ɒn/	κυνηγώ

#### Page 100

<b>advantage</b> (n)	/ədˈvɑːntɪdʒ/	πλεονέκτημα
<b>extraordinary</b> (adj)	/ɪkˈstrɔː(r)d(ə)n(ə)rɪ/	έκτακτος
<b>significant</b> (adj)	/sɪɡˈnɪfɪkənt/	σημαντικός
<b>useless</b> (adj)	/ˈjuːsləs/	άχρηστος

#### Unit 7 Creative Problem-Solving

#### Page 112

<b>solve</b> (v)	/sɒlv/	λύνω
<b>device</b> (n)	/dɪˈvaɪs/	συσκευή
<b>resourceful</b> (adj)	/rɪˈzɔː(r)ʃf(ə)/	πολυμήχανος
<b>hands-on</b> (adj)	/hændz ɒn/	ενεργή
<b>do-it-yourself</b> (adj)	/duː ɪt ʒə(r)ˈself/	Κάντο μόνος σου
<b>concept</b> (n)	/ˈkɒnsept/	έννοια
<b>open-source</b> (adj)	/ˈəʊpən sɔː(r)s/	ανοιχτή πηγή
<b>hardware</b> (n)	/ˈhɑːd(r)ˌweə(r)/	σκέύη, εξαρτήματα
<b>software</b> (n)	/ˈsɒf(t)ˌweə(r)/	λογισμικό
<b>application</b> (n)	/ˌæplɪˈkeɪʃ(ə)n/	εφαρμογή

#### Page 113

<b>3D printer</b> (n)	/θriːˈdiːˈprɪntə(r)/	εκτυπωτής 3D
<b>inspire</b> (v)	/ɪnˈspaɪə(r)/	εμπνέω
<b>experiment</b> (v)	/ɪkˈspɛrɪmənt/	πειράραια
<b>play around with</b> (ph v)	/pleɪ ə ˈraʊnd wɪð/	Παίζουν με
<b>failure</b> (n)	/ˈfeɪljə(r)/	αποτυχία

The **purpose** of an activity or a thing is the reason why it is done or used. A place is **remote** if it is far away from cities or developed places. When you are **curious**, you are very interested in learning more about a subject. Something is **exciting** if it creates a lot of interest or enthusiasm. Someone who is **expert** at something has special knowledge and skill in it from many years of experience. A process or device is **high-tech** when it involves sophisticated or modern technology. To **look into** something is to take time and effort to learn everything about it. To **encounter** something is to meet it or come across it, especially when you were not expecting to.

An **achievement** is a positive result that you get after a lot of effort. When you **encourage** someone, you say or do things to support them and make them feel confident. When you **engage in** something, you do it in an active and interested way. When something **requires** another thing, it needs it in order to function or exist.

A **route** is a way to get from one place to another. **Motion** is the act of moving. The **globe** is another way of saying *Earth* or *world*. When someone **sets a record**, they do something better or faster than anyone has ever done it. To **educate** someone is to teach them about a topic.

When two or more people, things, or ideas are connected with each other, they are **associated**. A **gene** is a part of your DNA that influences how you look and develop. When something **motivates** you, it gives you a reason for wanting to do something. A **trait** is a physical or emotional characteristic.

A **catastrophe** is a terrible event that causes damage or suffering. **Enormous** means very big. If something is **ancient**, it is very old. When something is **frightening**, it is very scary. **Huge** means very big. The **stomach** is the organ in an animal where food goes after it is eaten. The **diameter** of a circle is straight line that joins two edges and passes through the centre. Your **jaws** are the parts of your skull that hold your teeth. The **heart** is an important organ that pumps blood around the body of many animals, including humans. **Prehistoric** refers to the period of time before people wrote things down. How much something **weighs** is how heavy it is.

When something or someone **develops**, they grow over a period of time. **Extinction** happens when the last plant or animal of a particular species dies and no more exist. An **exception to the rule** is something that is different from the way things normally are.

A **carnivore** is an animal that eats meat. **Gigantic** means very big, like a giant. A **herbivore** is an animal that eats only plants. **Massive** means very large, heavy and solid.

An **era** is a period of time that is associated with an event or a person in history. **Times** is a word used to talk about multiplication. When a person or animal is **fierce**, they are powerful, aggressive and dangerous. When an animal **preys on** another, it hunts for, kills and eats that animal.

An **advantage** is a positive feature that makes it easier for someone or something to succeed. **Extraordinary** means different in a way that is much better than average. If something is **significant**, it is meaningful or important. An action or item that is **useless** has no value and will not create change.

When you **solve** a problem, you work out how to deal with it and make it go away. A **device** is a tool or a piece of equipment that is designed for a particular purpose. Someone who is **resourceful** can find a solution to problems even in difficult situations. If you are a **hands-on** person, you enjoy being directly involved in completing a project. When a process is **do-it-yourself**, you do not need other people to help you or do it for you. A **concept** is an idea. **Open-source** software is written by programmers and then put on the Internet and given away for free. Computer **hardware** includes all of the physical pieces of the machine, such as the keyboard and the monitor. **Software** is any of the computer programmes that allow the computer to function. The **application** of a tool or a piece of technology is the way it is used.

A **3D printer** is a machine that is able to build objects using digital designs. When something **inspires** you, it makes you want to do or say something. When you **experiment**, you try something new without knowing exactly what the result will be. When you **play around with** a gadget or an idea, you try different ways to work with it until you succeed. **Failure** is what happens when things go wrong and you do not achieve your goal.

What is the **purpose** of exploring the ocean floor? We still haven't seen many **remote** parts of the ocean. **Curious** people make great discoveries. It is **exciting** to be an explorer. Corey Jaskolski is an **expert** camera builder. **High-tech** tools help scientists explore without harming sites. Scientists have **looked into** how animals evolve. Ocean explorers **encounter** a wide variety of life forms.

Scientists are rewarded for their **achievements** with awards or honours. Exploring the Earth will encourage people to protect it. We learn about the world by **engaging** in exploration. Becoming an oceanographer **requires** a lot of training.

Barrington's **route** took him through extreme weather. Strong winds can affect the **motion** of an aeroplane. There are still many places on the **globe** left to explore. Barrington set a record as the youngest person to fly around the world. Barrington works to **educate** young people about flying.

Exploration is often **associated** with discovery and risk-taking. Scientists are researching how our **genes** affect us. Curiosity **motivates** humans to explore. Members of a family often share the same **traits**.

A major natural **catastrophe** led to the end of the dinosaurs. Most dinosaurs were **enormous** compared to animals that live today. Sequoias are the **ancient** giants of the forest. With its enormous teeth, T. rex was a **frightening** predator. Argentinosaurus was so **huge** that the Earth shook when it walked. Crushed bones have been found in T. rex's **stomach**. T. rex's eyes were more than nine centimetres in **diameter**. T. rex had powerful **jaws** and sharp teeth. Scientists compared T. rex's **heart** with that of modern birds. Dinosaurs lived in **prehistoric** times. Argentinosaurus **weighed** as much as ten elephants.

Some dinosaurs were not able to **develop** skills they needed to survive. Like dinosaurs, many animals of today face **extinction**. There were smaller dinosaurs that were **exceptions to the rule**.

**Carnivores** such as T. rex and Spinosaurus hunted their prey. Spinosaurus was a **gigantic**, meat-eating dinosaur. Elephants are **herbivores**: they eat bushes, roots, branches and fruit. Most dinosaurs were **massive** creatures.

T. rex was one of the largest predators of its **era**. The megalodon was nearly three **times** the size of the great white shark. The megalodon was **fierce** enough to capture and kill giant whales. Giant carnivores **preyed on** smaller animals.

Spinosaurus' large jaws gave it an **advantage** over other dinosaurs. Spinosaurus was **extraordinary** because it was an aquatic dinosaur. Scientists have made **significant** discoveries about dinosaurs in the Sahara. It would have been **useless** to try to escape from a predator like Spinosaurus.

Many people create their own gadgets to **solve** problems. Many people use **devices** such as smartphones. A **resourceful** person will try to fix a broken object before replacing it. My father likes to be **hands-on** in the kitchen, and he does a lot of the cooking. You can learn about **do-it-yourself** projects online. Makers work to turn their **concepts** into reality. Anyone can access **open-source** software. Computer **hardware** continues to get lighter and faster. You use different types of **software** each time you work on your computer. A single tool can have many different **applications**.

**3D printers** can create real objects using digital images. The story **inspired** her to create a new device. Makers have fun **experimenting** with new tools and materials. Do you enjoy **playing around with** gadgets to get them to work? Sometimes we learn more from **failure** than success.

<b>Page 114</b>		
<b>affordable</b> (adj)	/ə'fɔ:(r)dəb(ə)/	φθηνός
<b>approach</b> (n)	/ə'prəʊtʃ/	πλησιάζω
<b>flexible</b> (adj)	/'fleksəb(ə)/	εύκαμπτος
<b>innovator</b> (n)	/'ɪnəʊvətə(r)/	νεωτεριστής

<b>Page 117</b>		
<b>disabled</b> (adj)	/dɪs'etɪb(ə)ld/	άτομα με ειδικές ανάγκες
<b>transform</b> (v)	/'træns'fɔ:(r)m/	μεταμορφώνω
<b>wireless</b> (adj)	/'waɪə(r)ləs/	ασύρματος
<b>interpret</b> (v)	/'ɪn'tɜ:(r)prɪt/	ερμηνεύω

<b>Page 118</b>		
<b>amount to</b> (v)	/ə'maʊnt tu:/	ανέρχεται στο ποσό
<b>discourage</b> (v)	/'dɪs'kʌrɪdʒ/	αποθαρρύνω
<b>persistent</b> (adj)	/pə(r)'sɪstənt/	επίμονος
<b>success</b> (n)	/'sʌk'ses/	επιτυχία
<b>turn away</b> (ph v)	/'tɜ:(r)n ə'weɪ/	απομακρύνω

#### Unit 8 Art Connections

<b>Page 128</b>		
<b>come up with</b> (ph v)	/kʌm ʌp wɪð/	σκαρφίζομαι
<b>artwork</b> (n)	/'ɑ:(r)t,wɜ:(r)k/	Έργα τέχνης
<b>reaction</b> (n)	/'ri:ækʃ(ə)n/	αντίδραση
<b>mark</b> (n)	/'mɑ:(r)k/	σημάδι
<b>preserve</b> (v)	/'prɪ'zɜ:(r)v/	διατηρώ
<b>controversial</b> (adj)	/'kɒntrə'vɜ:(r)ʃ(ə)l/	αμφιλεγόμενος
<b>track down</b> (ph v)	/'træk daʊn/	Εντοπίζω
<b>depict</b> (v)	/'di:pɪkt/	περιγράφω
<b>accomplishment</b> (n)	/ə'kʌmplɪʃmənt/	επιπλήρωση

<b>Page 129</b>		
<b>technique</b> (n)	/'tek'ni:k/	τεχνική
<b>medium</b> (n)	/'mi:diəm/	μέσο
<b>power</b> (n)	/'paʊə(r)/	δύναμη
<b>draw in</b> (ph v)	/'drɔ: ɪn/	φέρεινει
<b>perspective</b> (n)	/pə(r)'spektɪv/	προοπτική
<b>primitive</b> (adj)	/'prɪmətɪv/	πρωτόγονος

<b>Page 130</b>		
<b>decorative</b> (adj)	/'dek(ə)rətɪv/	διακοσμητικός
<b>dramatic</b> (adj)	/'dræ'mætɪk/	δραματικός
<b>impressive</b> (adj)	/'ɪm'presɪv/	εντυπωσιακό
<b>symbolic</b> (adj)	/'sɪm'bɒlɪk/	συμβολικός

<b>Page 133</b>		
<b>admire</b> (v)	/əd'maɪə(r)/	θαυμάζω
<b>critic</b> (n)	/'krɪtɪk/	κριτικός
<b>bold</b> (adj)	/'bɔ:ld/	τολμηρός
<b>theme</b> (n)	/θi:m/	θέμα

<b>Page 134</b>		
<b>detailed</b> (adj)	/'di:teɪld/	λεπτομερής
<b>exhibition</b> (n)	/'eksɪ'bɪʃ(ə)n/	έκθεση
<b>honour</b> (v)	/'ɒnə(r)/	τιμή
<b>miniature</b> (adj)	/'mɪnɪətʃə(r)/	μικρογραφία
<b>needle</b> (n)	/'ni:d(ə)l/	βελόνα

Something is **affordable** if you can buy it using the money that you already have.  
 An **approach** is one way of getting something done when there are other possible ways.  
 A **flexible** person is someone who can change quickly and easily when a situation changes.  
 An **innovator** is someone who is able to create new things or find new ways to solve problems.

A **disabled** person lacks some ability that other people have, such as sight, hearing or the ability to move around.  
 To **transform** something is to change it so much that it is completely different.  
**Wireless** devices and technology work without being connected by wires.  
 When you **interpret** something, you determine what it means based on what you already know and what you can see, hear or feel.

What someone **amounts to** is the degree of success that they achieve in life.  
 If someone or something **discourages** you, they make you lose your confidence or willingness to do something.  
 If you are **persistent**, you keep trying again and again, even if things go wrong.  
 When you achieve **success** you meet your goal and get the result that you wanted.  
 When you **turn** someone **away**, you say no to the idea or plan they are presenting to you.

When you **come up with** an idea, a suggestion or a solution, you think of it.  
**Artwork** is any painting, sculpture or other visual made with the goal of showing beauty or representing an idea.  
 A **reaction** is an action or feeling that happens in response to seeing or hearing something.  
 A **mark** is a symbol that helps people to remember or learn about something from the past.  
 When you **preserve** something, you treat it in such a way that it still looks, feels, smells, sounds or tastes the same well into the future.  
 When something is **controversial**, reasonable people can disagree or have very different ideas about it.  
 When you **track** something **down**, you do research to find it or find out the truth about it.  
 To **depict** something is to represent it in a work of art or performance.  
 An **accomplishment** is a good and lasting result after a long effort.

A **technique** is a particular way of doing something that requires practice and skill.  
 A **medium** is any process or material that artists use to create art.  
**Power** is the ability to change the way people think, act or believe.  
 When something **draws** people **in**, it captures their interest.  
 Your **perspective** is the way you think about something, based on your experience.  
**Primitive** is a way to describe people and the things they did before modern civilization.

Something is **decorative** if its main purpose is to look nice.  
 Something is **dramatic** if it brings up strong emotions such as love, hate, fear or anger.  
 Something is **impressive** if you value or respect it so much that you think about it after you see or experience it.  
 Something is **symbolic** when it represents an idea using visuals or numbers.

When you **admire** something, you enjoy looking at it or being around it.  
 A **critic** is someone whose job is to make a judgment about something, such as a book, a piece of art, a film or a restaurant.  
 You can say something is **bold** when it gets your attention very easily.  
 A **theme** is an idea that shows up repeatedly in a work of art or literature or a performance.

Something is **detailed** if it is thorough and has many small parts or ideas.  
 An **exhibition** is a public showing of something, especially of works of art.  
 To **honour** something or someone is to give it praise and, often, some type of reward.  
**Miniature** refers to things that are very small.  
 A **needle** is a small, sharp tool that is used for sewing.

It is often more **affordable** to fix an item than it is to replace it.  
 Many makers take a hands-on **approach** to problem-solving.  
 Makers must be **flexible** and willing to try different ways of doing things.  
 An **innovator** creates something totally unique.

EEG headsets can help **disabled** people do things they could not do otherwise.  
 In the future, EEG headsets may **transform** our lives.  
 Most electronic communication devices are **wireless**.  
 Technology makes it possible for headsets to **interpret** our thoughts.

Einstein's teachers said that he wouldn't **amount to** much.  
 Failure **discourages** some people from following their dreams.  
 It is important for innovators to be **persistent** and keep trying until they get it right.  
 Many people experience failure before they find **success**.  
 Twelve publishers **turned** J.K. Rowling **away**.

The artist **comes up with** an idea before beginning her work.  
 Paintings, sculpture and other **artwork** can bring people together.  
 Political art causes strong **reactions** in people.  
 Painting is a way to leave a **mark** on a certain time or place.  
 Many ancient paintings have been **preserved** on cave walls.  
 The origin of art is a **controversial** topic.  
 Researchers are working to **track down** the exact origins of art.  
 Cave art **depicts** the beliefs and experiences of early peoples.  
 Cave art was an **accomplishment** of early humans.

One **technique** used by early artists was painting with stone tools.  
 Today, oil paint is a popular **medium** for painters.  
 Art has the **power** to connect people across cultures.  
 Cave art has the power to **draw** people **in** and transport them to the past.  
 Art can affect how you think and change your **perspective**.  
 People think cave art is **primitive**, but it is actually very sophisticated.

Thousands of years ago, people used animal shells for **decorative** purposes.  
 The **dramatic** images on the cave's walls caused a powerful reaction.  
 The complexity of ancient artwork is very **impressive** since artists did not have modern tools.  
 The shapes painted on the walls may have been **symbolic** of people's religious beliefs.

People on the street can **admire** murals on the side of a building.  
**Critics** have had different responses to Kobra's art.  
 Kobra's murals are known for their **bold** colours.  
 A common **theme** in Kobra's work is honouring past people and events.

Although Willard's work is small, it is very **detailed**.  
 Visitors to Willard's **exhibitions** need to look through a microscope to see his work.  
 Willard's work has been **honoured** by many people around the world.  
 These **miniature** sculptures are too small to see without a microscope.  
 The sculptures fit inside the eye of a **needle**.