УРАЛЬСКИЙ ГОСУДАРСТВЕННЫЙ
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NATURE

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ

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по английскому языку

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Учебное пособие предназначено для обучающихся на 1 курсе всех направлений очной формы обучения и состоит из 17 разделов социально-культурной направленности. В каждом разделе представлен аутентичный текст, взятый с зарубежных сайтов, и даны упражнения на разные виды речевой деятельности.

Издается по решению редакционно-издательского совета Уральского государственного лесотехнического университета.

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ПРЕДИСЛОВИЕ

Учебное пособие «Nature» по английскому языку предназначено для обучающихся на 1 курсе всех направлений очной формы обучения.

Цель пособия заключается в формировании иноязычной коммуникативной компетенции в области чтения, говорения и письма.

Материалом для обучения выбраны оригинальные тексты зарубежных сайтов по темам: «Растения», «Животные», «Рациональное использование природных ресурсов», «Проблемы окружающей среды», «Защита природы». Тематика текстов привлекает внимание к проблеме защиты природы.

Учебное пособие состоит из 17 разделов, каждый из которых имеет одинаковую структуру: дотекстовый блок, лексический блок, текстовый блок, грамматический блок, блок с упражнениями на развитие навыков говорения, блок для расширения словарного запаса. В результате освоения материала обучающиеся научатся читать и понимать текст, вычленять и обобщать полученные факты, передавать основное содержание текста с учетом правильных грамматических конструкций, рассуждать в пределах рассмотренных тем, увеличат словарный запас. Пособие снабжено словарем с ключевыми словами.

Пособие рекомендовано обучающимся, изучающим модуль «Социально-культурная сфера общения».

UNIT 1
Why Sunflowers Face East?

BEFORE YOU READ

Ex. 1. Look at figure 1 and discuss these questions.

1. Do you think sunflowers turn back and forth to track the sun?

2. Can the orientation of the sunflowers affect flower development?

Fig.1

VOCABULARY

Ex. 2. Check you understand the key words:

sunflowers	pot
face	benefit
attract	petals
according to	visible
researcher	pollen
striking	development
track	seed.
previous	

Ex. 3. Match the words with their translation.

1)to face	a) развитие цветка
2) to attract	b) исследователь
3) researcher	c) в соответствии с, согласно
4) seeds	d) поворачивать

5) to track	e) влиять, воздействовать
6) internal circadian clock	f) семена
7) according to	g) привлекать
8) flower development	h) внутренние суточные часы
9) to affect	i) столкнуться лицом к лицу; быть обращенным к
10) to turn	j) следить

Ex. 4. Read the sentence pairs. Choose which word best fits each blank.

1) face / attract
A. It's better for sunflowers to _____ east, as they produce more offspring.
B. East-facing flower heads _____ more bees.

2) visible / according to
A. Petals are _____ to bees but not to human eyes.
B. _____ to a study, sunflowers face the rising sun.

3) benefit/ development
A. The orientation of the plants also affected flower _____.
B. Warmth brings an energy _____ to foraging bees early in the morning.

4) petals / pollen
A. Plants also released _____ earlier in the morning.
B. Direct sunlight also lights up ultraviolet markings on the flower _____.

5) previous / striking
A. It's quite _____ that they face east.
B._____ work from Harmer's lab showed that this tracking is controlled by the plant's internal circadian clock.

READING

Ex. 5. Read the text.

Why Sunflowers Face East?

Sunflowers face the rising sun because increased morning warmth **attracts** more bees and also helps the plants reproduce more efficiently,

according to a study by **researchers** at the University of California, Davis. The results were published Aug. 9 in *New Phytologist.*

"It's quite **striking** that they face east," said Stacey Harmer, professor of plant biology in the UC Davis College of Biological Sciences. "It's better for them to face east, as they produce more offspring."

While sunflowers are growing, their heads turn back and forth to **track** the sun during the day. **Previous** work from Harmer's lab showed that this tracking is controlled by the plant's internal circadian clock.

But as the flower heads, or capitula, mature and their stems become stiff and woody, this movement decreases until the heads are all facing the morning sun.

When postdoctoral researcher Nicky Creux changed the orientation of sunflowers by turning their **pots** around, she noticed that east-facing flower heads attracted a lot more bees, especially in the morning, than plants facing west.

In a series of experiments, Creux, Harmer and colleagues found that the east-facing heads were significantly warmer in the morning than west-facing flower heads. That warmth brings an energy **benefit** to foraging bees early in the morning, Harmer said. Direct sunlight also lights up ultraviolet markings on the flower **petals** that are **visible** to bees but not to human eyes.

The orientation of the plants also affected flower **development** and reproductive success. East-facing plants tended to produce larger and heavier **seeds.** They also released **pollen** earlier in the morning, coinciding with the times when bees visit.

These effects seemed to be controlled by the temperature at the flower head. When researchers used a portable heater to warm up west-facing heads, they were able to get similar results to east-facing flower heads.[*]

Ex. 6. Read the text again and say if the following sentences are true (T) or false (F).

1. While sunflowers are growing, their heads turn back and forth to track the sun during the day.

2. When postdoctoral researcher Nicky Creux changed the orientation of sunflowers by turning their pots around, she noticed that west-facing flower heads attracted a lot more bees.

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[*] URL: https://phys.org/news/2021-08-sunflowers-east.html

3. In a series of experiments, Creux, Harmer and colleagues found that the east-facing heads were significantly warmer in the morning than west-facing flower heads.

4. Direct sunlight also lights up ultraviolet markings on the flower petals that are invisible to bees but not to human eyes.

5. The orientation of the plants also affected flower development and reproductive success.

6. West-facing plants tended to produce larger and heavier seeds.

7. These effects seemed to be controlled by the temperature at the flower head.

8. Sunflowers face the rising sun because decreased morning warmth attracts more bees.

SPEAKING

Ex. 7. What have you learned from the text? Give the summary of the text using these phrases.

I've learned from the text that …
First of all, …
Moreover, …
Actually, …
The main thing is…
On the whole, …

GRAMMAR: To be/ to have

	To be		
Present Simple	I am You are He is She is It is	Am I? Are you? Is he? Is she? Is it?	I am not You are not (aren't) He is not (isn't) She is not (isn't) It is not (isn't)
Past Simple	I was You were He was She was It was	Was I? Were you? Was he? Was she? Was it?	I was not You were not (weren't) He was not (wasn't) She was not (wasn't) It was not (wasn't)

	To have		
Present Simple	I have You have He has She has It has	Do I have? Do I have? Does he have? Does she have? Does it have?	I do not (don't) have You do not (don't) have He does not (doesn't) have She does not (doesn't) have It does not (doesn't) have
Past Simple	I had You had He had She had It had	Did I have? Did you have? Did he have? Did she have? Did it have?	I did not (didn't) have You did not (didn't) have He did not (didn't) have She did not (didn't) have It did not (didn't) have

Ex. 8. Complete the sentences with *is, are, am, was,* or *were*.

1. Ford … an American company.
2. I … the captain of the school team.
3. It … two years ago.
4. Where … the dining room, please?
5. He … in London yesterday.
6. Where … they last summer?
7. The people in this town … very nice.
8. Mr. and Mrs. Baker … here.
9. Where …my newspaper?
10. … you in class yesterday?

Ex. 9. Complete the sentences with *has, have,* or *had.*

1. I am going to the dentist. I … toothache.
2. I … too many toys when I was a child.
3. Your sister … not come yet.
4. Does he … English classes twice a week?

5. My mum … a new dress.
6. How much money does he …?
7. Tom … a pen but we don't … any paper.
8. In the evening he … dinner with his mum.
9. Dave doesn't … an Internet connection.
10. When I tried to use my laptop, I realized the battery … run down.

Ex. 10. Complete the gaps with the expressions below. Make any changes necessary.

~~have a rest~~, have a look, have a baby, have a nice meal, have a chat, have a fantastic time, have a walk

1. I'm feeling tired, I'm going to … *have a rest*.
2. What was the restaurant like? I hope you …
3. In this country, you can make maternity leave when you …
4. The director wants to … with me about my exam results.
5. The say it's a good idea to … every day to keep fit.
6. It was a wonderful holiday, we …
7. Will you let me … at your revision notes?

NOTA BENE

Collocations: HAVE
Have a bath
have a shower
have a conversation
have an idea
have a doubt
have experience
have a busy day
have skills
have success
have a problem
have a look
have a date
have a holiday
have a sleep
have a talk

have fun
have a break
have a chance
have breakfast/lunch/dinner
have a good time
have tea
have a rest
have a nice day
have a snack
have an interview

Ex. 11. Make up your own sentences using collocations from the box.

UNIT 2
Cats Prefer to Get Free Meals
Rather Than Work for Them

BEFORE YOU READ

Ex. 1. Discuss these questions.

    1. Is it easy to train cats?
    2. What do cats like to do?

VOCABULARY

Ex. 2. Check you understand the key words and words combinations:

choice	puzzle
perform a task	research affiliate
require much effort	extract
seem	approach
tray	experience
available food	unclear
species	ambushing.
rodent	

Ex. 3. Match the words with their definitions.

1) rodent	a) to move closer to someone or something
2) species	b) any small animal that belongs to a group of animals with strong sharp front teeth
3) to approach	c) a group into which animals, plants, etc. that are able to have sex with each other and produce healthy young are divided, smaller than a genus and identified by a Latin name
4) behaviorist	d) the knowledge and skill that you have gained through doing something for a period of time; the process of gaining this
5) experience	e) to decide which you want from a number of things
6) effort	f) a scientist who studies or accepts the theory of behaviourism
7) to ambush	g) an attempt to do something especially when it is difficult to do
8) to choose	h) to make a surprise attack on somebody/something from a hidden position
9) to freeload	i) an animal that is caught by another animal and eaten
10) prey	j) to accept free food and accommodation from other people without giving them anything in exchange

READING

Ex. 4. Read the text.

Cats Prefer to Get Free Meals Rather Than Work for Them

When given the **choice** between a free meal and **performing a task** for a meal, cats would prefer the meal that doesn't require much effort.

11

While that might not come as a surprise to some cat lovers, it does to cat behaviorists. Most animals prefer to work for their food -- a behavior called contrafreeloading.

A new study from researchers at the University of California, Davis, School of Veterinary Medicine showed most **domestic** cats choose not to contrafreeload. The study found that cats would rather eat from a **tray** of easily **available food** rather than work out a simple **puzzle** to get their food.

"There is an entire body of research that shows that most species including birds, rodents, wolves, primates - even giraffes - prefer to work for their food," said lead author Mikel Delgado, a cat behaviorist and **research affiliate** at UC Davis School of Veterinary Medicine. "What's surprising is out of all these species cats **seem** to be the only ones that showed no strong tendency to contrafreeload."

In the study, Delgado, along with co-authors Melissa Bain and Brandon Han of the UC Davis School of Veterinary Medicine, provided 17 cats a food puzzle and a tray of food. The puzzle allowed the cats to easily see the food but required some manipulation to extract it. Some of the cats even had food puzzle experience.

"It wasn't that cats never used the food puzzle, but cats ate more food from the tray, spent more time at the tray and made more first choices to approach and eat from the tray rather than the puzzle," said Delgado.

Cats aren't just lazy. Cats that were part of the study wore activity monitors. The study found that even cats that were more active still chose the freely available food. Delgado said the study should not be taken as a dismissal of food puzzles. She said just because they don't prefer it, doesn't mean they don't like it. Delgado's previous research shows puzzles can be an important enrichment activity for cats.

Why cats prefer to freeload is also unclear. Delgado said the food puzzles used in the study may not have stimulated their natural hunting behavior, which usually involves ambushing their prey.[*]

Ex. 5. Read the text again and say if the following sentences are true (T) or false (F).

1. Cats like to get free meals rather than work for them.
2. Most animals prefer to work for their food - a behavior called freeloading.

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[*] URL: https://phys.org/news/2021-08-cats-free-meals.html

3. The study showed that most domestic cats choose not to contrafreeload.

4. Cats would rather eat from a tray of easily available food rather than work out a simple puzzle to get their food.

5. The study also showed that most species including birds, rodents, cats, wolves, primates - even giraffes - prefer to work for their food.

6. Delgado, along with co-authors Melissa Bain and Brandon Han of the UC Davis School of Veterinary Medicine, provided 7 cats a food puzzle and a tray of food.

7. The food puzzle allowed the cats to easily see the food but required some manipulation to extract it.

8. Cats that were part of the study wore activity monitors.

9. Why cats prefer to freeload is also clear.

10. Cats' natural hunting behavior involves ambushing their prey.

Ex. 6. Complete the sentences below in your own words.

1. Cats prefer to get free meals rather than …

2. The study showed that most domestic cats choose not to …

3. The study found that cats would rather eat from a tray of easily available food rather than …

4. Most species including birds, rodents, wolves, primates - even giraffes – prefer to …

5. What's surprising is out of all these species cats seem to be the only ones that …

6. The food puzzle allowed the cats to easily see the food but required …

7. Why cats prefer to freeload is also …

8. Cats' natural hunting behavior involves …

SPEAKING

Ex. 7. Look at figure 2 and tell about cats' habits. Use these phrases.

Fig. 2

It's a well-known fact that …
First of all, …
What's more, …
On the one hand, … on the other hand…
It seems to me that…
I think …
As a result, …

GRAMMAR: There is/There are

Ex. 8. Ask questions according to the pattern.

> Pattern: There is a pen in my bag.
> What is there in my bag?

1. There is a table in the corner of the room.
2. There is a picture on the wall.
3. There is a chair by the window.
4. There is some tea in your cup.
5. There is some bread on the plate.
6. There are some flowers in the vase.
7. There are some boats on the river.
8. There are some chairs at the table.
9. There are some pine-trees in the forest.
10. There are some cats in this house.

Ex. 9. Ask questions according to the pattern.

> Pattern: There are two pens on the table.
> How many pens are there on the table?

1. There are four glasses on the table.
2. There are three cats on the sofa.
3. There are ten people in the hall.
4. There are many children in the yard.
5. There are seven apples on the plate.
6. There are two dogs in the garden.
7. There are four men in the car.
8. There are ten students in the classroom.
9. There are four computers in the office.
10. There are two windows in the room.

Ex. 10. Transform the following sentences according to the pattern.

> Pattern: I have a book in my bag.
> There is a book in my bag.

1. She has many books in her study.
2. I have beautiful flowers in my garden.

3. He has some mistakes in his dictation.
4. We have some meat in the refrigerator.
5. She has a very good carpet on the flour.
6. They have a little garden around their country house.
7. He has a new computer in his office.
8. I have many books in my study.
9. They have a modern micro oven in the kitchen.
10. I have a cosy arm-chair in my room.

Ex. 11. Complete the text with *it* or *there* in each space.

Tropical forests grow near the Equator where 1) ___it__ is warm and wet. 2) _____ are only two seasons, rainy and dry. 3) _____ is normally 20-25°C in a tropical forest and 4) _____ is only a drop of about 5°C in the coldest months. 5) _____ is a lot of rain, on average more than 200 cm per year. 6) _____ is poor soil, and 7) _____ is difficult for plants on the forest floor … to develop, as tall trees (25–35 metres) block the light. 8) _____ … are many plants, birds, animals and insects. 9) _____ are different kinds of tropical forests with different kind of trees. 10) _____ depends on the temperature and the amount of rainfall.

In temperate forests, 11) _____ are four seasons with a cold winter. 12) _____ is impossible for the trees to grow all the year round in a temperate forest, and 13) _____ is a growing season of only 140–200 days. 14) _____ is also a greater range of temperatures, from – 30 to 30°C, and 15) _____ rains throughout the year (170–150 cm). As 16) _____ is cooler and drier here, trees are smaller, 17) _____ is more light, and the soil is richer. 18) _____ are many deciduous trees in these forests, and 19) _____ is common to find many animals and birds. Again, 20) _____ is a range of forest types depending on the annual rainfall.

NOTA BENE

> ON
> On leave – в отпуске
> on a trip – в путешествии
> on foot – пешком
> on the contrary – наоборот
> on a computer – на компьютере
> on the phone – по телефону

on the one hand – с одной стороны
on the other hand – с другой стороны
on a bus – в автобусе
on a train – в поезде
on a plane – в самолете
on vacation – в отпуске
on business – в командировке
on email – по электронной почте
on the internet – в Интернете
on the page – на странице
depend on – зависеть от
insist on – настаивать на
rely on – положиться на

Ex. 12. Make up your own sentences using collocations from the box.

UNIT 3
Characteristics of Plants & Animals

BEFORE YOU READ

Ex. 1. Look at figure 3 and discuss these questions.

1. How do animals differ from plants?
2. What do they have in common?

Fig. 3

VOCABULARY

Ex. 2. Check you understand the key words:

convert	gene
despite	(the) environment
argue	however
share characteristics	generation
via	permit
cell	substance
nutrient	contain.
because of	

Ex. 3. Match the words to make phrases.

1) to convert	a) many characteristics
2) to contain	b) substance
3) via	c) pass on their genes
4) to permit	d) argue
5) green	e) photosynthesis
6) to adapt to	f) permits the absorption of outside substances
7) to absorb nutrients	g) (the) environment
8) to share	h) from food
9) plants and animals can	i) sunlight into the energy
10) scientists	j) DNA

READING

Ex. 4. Read the text.

Characteristics of Plants & Animals

Plants and animals are both living things, but at first glance, they seem very different. Animals tend to move around, while plants stay rooted in one place. Animals eat their food, while plants **convert** sunlight into the energy they need. **Despite** these differences, scientists **argue** that plants and animals are more similar than they are different. Some living things even blur the line between the plant and animal kingdoms.

Plants and animals **share** many **characteristics**, but they are different in some respects. Animals usually move around and find their own food, while plants are usually immobile and create their food **via** photosynthesis. Plants and animals both have **cells** that contain DNA, yet the structure of their cells differs. Animal cells absorb **nutrients** from food, while plant cells use plastids to create energy from sunlight.

Both plant and animal cells carry DNA – genetic material that is passed down from one **generation** to another. **Because of** DNA, plants and animals can pass on their **genes** over time and adapt to **the environment** around them via natural selection. Plant and animal cells both divide. Cell division is how individual animals and plants grow and replace parts of themselves.

Plant and animal cells have their differences, **however**. Plant cells are surrounded by a stiff cell wall, which helps keep plants rigid and upright, while animal cells are surrounded by a thin, permeable membrane that **permits** the absorption of outside **substance**s. Plant and animal cells also **contain** differing organelles – inner-cellular structures. Some animal cells have cilia, the hairlike protrusions that help the cell move around. Plant cells do not have cilia, although most plant cells contain plastids. These organelles, which animal cells lack, contain pigment or food and are necessary for photosynthesis.[*]

Ex. 5. Choose the correct answer.

1.Plants and animals share many characteristics, but they are … in some respects.
   a) similar   b) different   c) structural
2. Animals usually … around and find their own food.
   a) create   b) live   c) move
3. Plants convert … into the energy they need.
   a) sunlight   b) photosynthesis   c) cell
4. Plants and animals both have cells that contain …
   a) nutrients   b) DNA   c) organelles
5. Genetic material that is … from one generation to another.
   a) converted   b) permitted   c) passed down

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6. … cells can divide.
   a) Both plant and animal   b) only plant   c) only animal
7. Plant cells are surrounded by …
   a) a membrane   b) nutrients   c) a cell wall
8 Animal cells are surrounded by …
   a) a membrane   b) nutrients   c) a cell wall
9. Plant and animal cells also contain … organelles.
   a) similar   b) several   c) differing
10. Plastids are necessary for …
   a) food   b) photosynthesis   c) animals

SPEAKING

Ex. 6. Look at figure 4. Compare an animal and a plant. Use these phrases.

As far as I know, …
Compared with animals, plants are …
In comparison with plants, animals…
The most important difference is …
The similarity between plants and animals is that they …

Fig.4

GRAMMAR: Comparatives & Superlatives

Ex. 7. Underline the correct word or phrase in each sentence.

1. This book is <u>the most interesting</u>/ the more interesting I've ever read.
2. This temple is the oldest/ the eldest in Europe.
3. That dress is a lot longer than/that the other one.
4. Nothing is worse/worst than being stuck in a traffic jam.
5. The test wasn't as hard as/ hard as than I did yesterday.
6. Our journey took longer/ the longest than we expected.

7. Could you work more quietly/more quieter please?

8. I think my school is just as good/better than yours.

Ex. 8. Write the comparative and superlative forms of the adjectives.

Adjective	Comparative	Superlative
Quiet	*quieter*	*the quietest*
Different		
Common		
Friendly		
High		
Old		
Low		
Bright		
Far		
Happy		
Little		
Many		
Often		

NOTA BENE

AT
At home – дома
at university – в университете
at work – на работе
at the end – в конце
at the weekend –в выходные
at first – вначале
at least – наконец-то
be at hand – быть под рукой
at the same time – одновременно
at once – сразу
at the top – вверху
at the office – в офисе
at last – в конце концов
laugh at – смеяться над
look at – смотреть на
be lucky at – быть удачливым в

| aim at – стремиться к |
| be good at – быть хорошим в |
| be brilliant at – быть великолепным в |
| be skillful at – быть умелым в |
| work at – работать в |

Ex. 9. Make up your own sentences using collocations from the box.

UNIT 4
What Is Taxonomy?

BEFORE YOU READ

Ex. 1. Discuss these questions.

1. Have you ever heard about biological classification of Carolus Linneaus?
2. What are the five kingdoms in this classification?

VOCABULARY

Ex. 2. Check you understand the key words:

determine	major
define	similarity
research	mean
allow	mammal
various	order
food chain	genus
develop	domestic.
hierarchy	

Ex. 3. Read the words in the box and complete the following sentences.

classification, order, various, taxonomy, meaning, scientifically, hierarchy. Fungi, all living things, includes.

1. In science, there is a system of classification that is used to determine and define ….

2. This classification system is known as….

3. The modern biological … began with the 18th century Swedish naturalist Carolus Linneaus.

4. Linneaus had developed a … for classifying and naming organisms.

5. There are such categories as: kingdom, phylum, class, …, family, genus, species, and subspecies.

6. According to the five kingdom classification system, the kingdoms are Monera, Protista, …, Plantae and Animalia.

7. The Red fox is … known as *Vulpes vulpes*.

8. A fox's order is Carnivora, … it is a meat-eating organism.

9. There are … species of foxes.

10. This … examples such as the Arctic fox (*Vulpes lagopus*), or the Bengal fox (*Vulpes bengalensis*).

READING

Ex. 4. Read the text.

What Is Taxonomy?

In science, there is a system of classification that is used to **determine** and **define** all living things. This system **allows** organisms to be classified into **various** groups for better understanding, classification and **research**. It also helps in the understanding of evolution, ecosystems and **food chains**, and the biology of the organism in general. This classification system is known as taxonomy (Fig. 5).
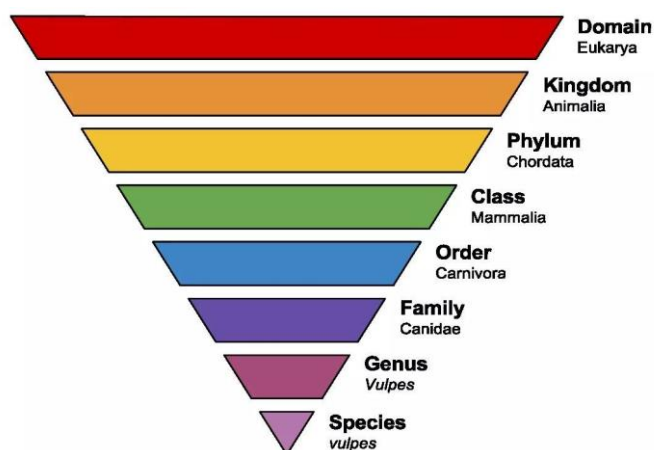

Fig. 5

The modern biological classification began with the 18th century Swedish naturalist Carolus Linneaus. Linneaus had **developed** a **hierachy** for classifying and naming organisms that forms the basis for modern taxonomy.

In Linnean hierarchy, the **major** categories or taxons are given standard taxonomic ranks to indicate the levels of **similarities** between all the members of the group. These categories are as follows: kingdom, phylum, class, order, family, genus, species, and subspecies.

According to the five kingdom classification system, the kingdoms are Monera, Protista, Fungi, Plantae and Animalia. All known animals comes under the kingdom of Animalia, plants in the Plantae Kingdom, Fungi include any living fungus such as mushrooms and the like, protista includes all unicellular organisms, while the monera includes all prokaryotic organisms.

The Red fox is scientifically known as *Vulpes vulpes*. Under the Kingdom, it is Animalia, **meaning** animal and not plant or bacterial life. Its Phylum is Chordata. Its Class is Mammalia, which includes the **mammals**. A fox's **order** is Carnivora, meaning it is a meat-eating organism. The family for the red fox is Canidae, which colloquially is known as the 'dog family' and includes **domestic** dogs, foxes, wolves, hyenas, etc. The **genus** is then known as *Vulpes*, which is the distinction of a fox. There are various species of foxes, hence there are a number of different species of Vulpes. This includes examples such as the Arctic fox (*Vulpes lagopus*), or the Bengal fox (*Vulpes bengalensis*).[*]

Ex. 5. Read the text again and choose the correct answer.

1. A system of classification … organisms to be classified into various groups for better understanding, classification and research.

a) includes   b) allows   c) meanes

2. The modern biological classification began with … Swedish naturalist Carolus Linneaus.

a) the 18th century   b) the 19th century   c) the 20th century

---

[*] URL: https://www.worldatlas.com/articles/what-is-a-species.html

3. In Linnean hierarchy, the major categories are given standard taxonomic ranks to indicate the levels of … between all the members of the group.

a) similar   b) differences   c) similarities.

4. Linneaus had developed a … for classifying and naming organisms.

a) categories   b) hierarchy   c) food chain

5. These categories are as follows: …, order, family, genus, species, and subspecies.

a) class, kingdom, phylum   b) kingdom, phylum, class   c) kingdom, class, phylum

6. The monera includes ….

a) all prokaryotic organisms   b) all unicellular organisms   c) any living fungus

7. … is scientifically known as *Vulpes vulpes*.

a) the Arctic fox   b) the Bengal fox   c) The Red fox

8. Its … is Chordata.

a) Phylum   b) Class   c) Order

9. Its … is Mammalia, which includes the mammals.

a) Phylum   b) Class   c) Order

10. The family for the red fox is Canidae, which colloquially is known as the 'dog family' and includes …dogs, foxes, wolves, hyenas, etc.

a) similar   b) wild   c) domestic

SPEAKING

Ex. 6. Make up a summary of the text using these phrases.

The title of the text is …
The main idea of the text is …
The purpose of the text is to give the reader some information about …
The text can be divided into … parts.
Firstly, …
Secondly, …
Finally, …
I found the text easy/hard to understand, informative/of no value, interesting/boring.
I have learned from the text that …

24

GRAMMAR: Pronouns

Ex. 7. Look at figure 6 and complete each sentence about endangered species with a/ an, some, or any.

Fig. 6

1. When the last member of __a__ species dies, we say that the species has become extinct.

2. There aren't _____dinosaurs left alive because they died out millions of years ago.

3. _____ plants, birds and animals are still in danger from human beings.

4. This is often because human beings destroy the habitats of animals, so that they don't have _____food to eat.

5. When _____animal or a plant becomes extinct, this can affect the plants and animals which depend on it for food.

6. For example, there aren't _____ dodos left alive.

7. This bird once lived on the island of Mauritius where there weren't _____animals to eat it.

8. It couldn't fly, and was ____ easy meal or dogs and rats brought to the island by Europeans in the 16th century.

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9. Within a hundred years the dodo became extinct, and although we still have _____ paintings of dodos, there aren't _____ preserved examples.

10. Scientists have recently found _____ bones on the island, but nothing else is left of the dodo.

NOTA BENE

FOR
For the first time – в первый раз
leave for – уезжать в
ask for – просить о
look for – искать
apply for – подавать заявление
work for – работать на кого-то
eager for – быть жаждущим чего-то
wait for – ждать кого-то (чего-то)
thank for – благодарить за
care for – заботиться о
be famous for – быть знаменитым чем-либо
for fun – ради шутки

Ex. 8. Make up your own sentences using collocations from the box.

UNIT 5
Animal Social Behaviour and Communication

BEFORE YOU READ

Ex. 1. Look at figure 7 and discuss these questions.

1. Can animals communicate?
2. Do people understand animal behavior correctly?

Fig. 7

VOCABULARY

Ex. 2. Check you understand the key words:

individual	to mark the boundaries
beneficial	detect
predator	behaviour
warn	bee
attack	threaten
release	intimidate
hive	chimp.
gesture	

Ex. 3. Match the words with their definitions.

1) human	a) the activity or process of expressing ideas and feelings or of giving people information
2) communication	b) an animal that kills and eats other animals
3) behavior	c) the position in which you hold your body when standing or sitting

27

4) predator	d) a black and yellow flying insect that can sting..Bees live in large groups and make honey
5) beneficial	e) relating to people
6) posture	f) *informal* a chimpanzee
7) gesture	g) improving a situation; having a helpful or useful effect
8) sound	h) a movement that you make with your hands, your head or your face to show a particular meaning
9) bee	i) the way that somebody behaves, especially towards other people
10) chimp	j) something that you can hear

READING

Ex. 4. Read the text.

Animal Social Behaviour and Communication

You thought it was only humans that had social lives and nice chats? Wrong! Look! (Fig. 8).

A Communication be-tween different **indi-viduals** in a group is **beneficial** in a number of ways.

1. It can help keep the group together.

2. If any one animal sees a **predator**, it can **warn** all the others.

Fig. 8

3. Baby animals can communicate their needs to the parents.

4. Communication can allow predators hunting in a pack to coordinate their attack.

Animals can communicate in different ways.

B

Communication by sound is pretty common in nature, and occurs in humans too – through language.

1. Whales and dolphins can communicate over long distances using low-frequency sound.

2. Birds' calls are used to declare their territory, **attack** a mate or warn others about predators.

C

Chemicals called pheromones can be **released** by an animal to tell others where it is or where it has been:

1. Many animals use chemical 'scents' **to mark the boundaries** of their territory.

2. Other chemicals can act as sexual attractants. In some months, the male can **detect** the female's pheromone even if he's several kilometers away from her.

D

Some animals use specific behavior signals to communicate.

1. Honey **bees** move in a certain ways, called a 'waggle dance'. When they return to the **hive** to tell others where they've found food;

2. Most mammals can communicate certain intentions **through** their body posture and gestures.

3. For example, many use behaviours to **threaten** others – to **intimidate** them and so **avoid** an actual fight. **Chimps** do this by staring or raising an arm.

4. There are plenty of courtship behaviours in different species too – from funny dances to offering gifts to building elaborate nests.[*]

Ex. 5. Read the text again and choose the best title for each paragraph. There is one extra title.

A) Chemicals
B) Behaviour
C) Animals need to communicate
D) Sound.

---

[*] URL: www.cgpbooks.co.uk

SPEAKING

Ex. 6. Think of a suitable Russian equivalent for the following idioms. Use them in sentences or stories of your own.

1. Every dog has its day.
2. Be as busy as a bee.
3. Like a fish out of water.
4. Black sheep.
5. Hard nut to crack.
6. Be in the doghouse.

GRAMMAR: Adverbs

Ex. 7. Underline the correct word in each sentence.

1. Tom speaks good/ well German.
2. Tom speaks German good/well.
3. My friend usually drives slowly/slow.
4. Be quick/quickly. We are in a hurry.
5. In May it often rains heavy/ heavily.
6. Please go over your notes carefully/ careful before the exam.
7. We have all been working very hard /hardly and now we are tired.
8. That looks good/well.

NOTA BENE

IDIOMS
White as a sheet – белый, как простыня
green with envy – позеленевший от зависти
blue with cold – синий от холода
red as a beetroot – красный, как свекла
as black as a coal – черный, как уголь
in the green – в расцвете сил
black and blue – в ушибах и синяках
see red - впасть в ярость
in the black – быть в плюсе, без убытков
be in the red – быть в долгах
white elephant – обременительное (разорительное) имущество
once in a blue moon – очень редко

> black sheep - белая ворона
> golden opportunity- блестящая возможность
> blue money – транжирить деньги
> in the dark – не знать, быть в неведении
> a black eye – синяк
> grey area – непонятная, неопределенная ситуация
> white lie – безвредная ложь
> red tape – волокита, бюрократизм

Ex. 8. Complete these sentences using the colour idioms from the box.

1. When he saw my new Mercedes, he was …
2. As we reached the top of the mountain, we were…
3. When she told him bad news, he went …
4. When his mother kissed him in front of his friends, he went …
5. John was … of the family because he was always in trouble with the law.
6. The company has been … for the past three years and now we need to increase our sales.
7. She phones me only …

UNIT 6
Plants & Animals Senses

BEFORE YOU READ

Ex. 1. Discuss these questions.

1. How many senses do human beings have?
2. What senses do animals and plants have?

VOCABULARY

Ex. 2. Check you understand the key words:

senses	prevent
sight	moisture
scent	loss
in fact	fungus

31

vertebrates   carbon
brain   compete
interpret   sprout.
lean

Ex. 3. Match the words to make phrases.

1) to sense	a) the pores at night
2) to have	b) pores on their leaves during the day
3) to interpret	c) the world around them
4) to open	d) light, chemical signals
5) to close	e) fairly complex central nervous systems
6) to communicate	f) toward sunlight
7) to send	g) what is going on
8) to understand	h) with one another
9) to prevent	i) moisture loss
10) to lean	j) signals and nutrients back and forth

READING

Ex. 4. Read the text.

Plants & Animals Senses

Human beings have five **senses**: **sight**, **scent**, taste, touch and hearing. **In fact**, all living things, including plants, have senses, but without eyes, noses, tongues, skin or ears, can plants even sense the world around them? The answer is yes. All living things can sense the world around them, although they do so in different ways.

Most animals have fairly complex central nervous systems. **Vertebrates** – animals with a **brain** and spinal cord, such as human beings – have especially developed senses. Even invertebrates usually possess all or most of the five basic senses. Animals' bodies **interpret** light, chemical signals, pressure and sound waves to understand what is going on around it.

Plants sense their environment in other ways. Instead of sensory organs, they use a combination of hormones and sensory ions to take in information. Plants can sense light, which is important since sunlight is a plant's main source of energy. Plants slowly move over time to **lean** toward sunlight. Plants can also sense when the sun goes down. Scientists have found that certain plant

species open pores on their leaves during the day to take in maximum sunlight, but close the pores at night to **prevent moisture loss**.

Scientists have **recently** discovered that plants can even communicate with one another. About 90 percent of plants have mutually beneficial relationships with **fungus**, which spreads out underground in large webs. These webs can link the roots of several plants together, allowing the plants to send signals and nutrients back and forth. Plants may send beneficial **carbon** to their neighbors via the "fungal" network or even toxic chemicals if new, **competing** plants begin to **sprou**

Ex. 5. Complete the sentences below in your own words.

1. Human beings have five senses: …
2. All living things can sense …
3. Vertebrates have especially …
4. Animals' bodies interpret …
5. Instead of sensory organs, plants use a combination …
6. Plants slowly move over time to …
7. Plants can also sense when the sun …
8. Certain plant species close the pores at night to prevent …
9. About 90 percent of plants have mutually beneficial relationships with …
10. Plants may send beneficial carbon to their neighbors via …

SPEAKING

Ex. 6. Look at figure 9. Make up a summary of the text using these phrases.
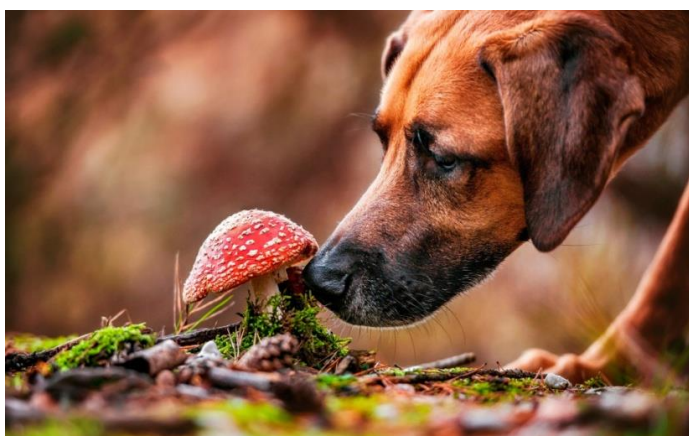
I have learned from the text that …
Firstly,
Secondly,
Moreover,
Finally,
In my opinion,

Fig. 9

GRAMMAR: Present Simple/Present Continuous

Ex. 7. Match each sentence (a–f) with a suitable response (1–6).

a) What do you usually do on your birthday? (*1*)
b) Would you like to meet again on Sunday?
c) Have you finished your homework?
d) What are you doing?
e) What are you doing on Friday?
f) What do you do?

1. I have a party.
2. I work in a travel agency.
3. I'm still doing it.
4. It's hot in here. I'm opening some windows.
5. I'm going back to Canada tomorrow.
6. I'm having a party.

Ex. 8. Underline the correct sentence for each situation.

1. You want to invite a friend to your party on Friday.
    a) I have a party on Friday. Do you want to come?
    b) <u>I'm having a party on Friday. Do you want to come?</u>
2. A friend invites you to a snack bar at lunch time. You say:
    a) Thanks, but I always go home.
    b) Thanks, but I 'm always going home.
3. You haven't decided yet about buying a new bike. You say:
    a) I think about it.
    b) I'm thinking about it.
4. A friend opens the door and says: What are you doing? You reply:
    a) I work as a secretary.
    b) I'm repairing the computer.
5. A friend asks: Do you like lemon tea? You reply:
    a) I prefer tea with milk.
    b) I'm preferring tea with milk.
6. A teacher asks you if you have finished the book she lent you. You say:
    a) Sorry, I still read it.
    b) Sorry, I'm still reading it.

NOTA BENE

WITH
Agree with – соглашаться с
be impressed with - быть впечатленным
be fed up with – сыт по горло
be bored with – наскучить
be disappointed with – быть расстроенным чем-либо
be angry with – сердиться на
be popular with – быть популярным среди
be satisfied with – быть удовлетворенным чем-либо
be annoyed with – быть недовольным чем-либо
be happy with – быть довольным чем-либо
be familiar with – быть знакомым с
compare with – сравнивать с
deal with – иметь дело с

Ex. 9. Make up your own sentences using collocations from the box.

UNIT 7
Plant or Animal?

BEFORE YOU READ

Ex. 1. Look at figure 10 and discuss these questions.
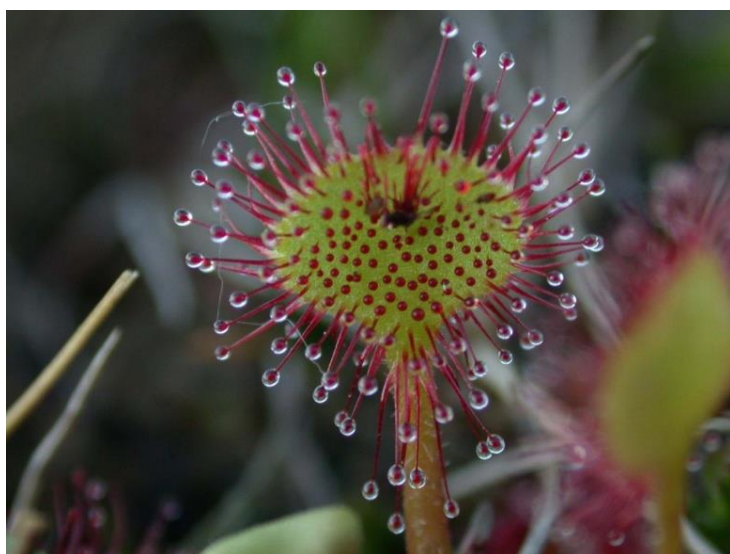
1) Can you distinguish a plant from an animal?
2) Have you ever heard about carnivorous plants?

Fig. 10

VOCABULARY

Ex. 2. Check you understand the key words:

creature	bug
possess	in addition
shade	sea anemone
resemble	at first glance
tiny	vice versa
flytrap	to classify
leaf	common.
appearance	

Ex. 3. Read the sentence pairs. Choose which word best fits each blank.

1) share / possess
A. Some creatures _____characteristics that make classifying them as plants or animals difficult.
B. All living creatures, plants and animals alike, _____ a common ancestor.

2) animal / plant
A. In almost every way, coral looks and behaves like a _____.
B. At first glance, sea anemones appear to be plants, but these creatures are _____.

3) classify/ resemble
A. Some animals can be difficult to _____ at first sight.
B. Coral _____ (s) flowers.

4) as well / in addition
A. Plants and animals have many differences, but many similarities _____.
B. Venus flytraps move and eat food _____to creating energy from sunlight.

5) appearance / creature
A. Some _____ (s) blur the line between plant and animal.
B. Venus flytraps can be easily identified as plants by their green leafy _____.

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READING

Ex. 4. Read the text.

Plant or Animal?

Usually, it is easy to tell a plant from an animal simply by looking. However, some **creatures** blur the line between plant and animal. These creatures **possess** characteristics that make classifying them as plants or animals difficult.

For example, coral reefs are colorful, underwater gardens located in warm ocean waters. The coral itself appears rooted in place, entirely immobile. In **shades** of green, pink and yellow, with round or petal-like shapes, coral **resembles** flowers. In almost every way, coral looks and behaves like a plant. However, coral is an animal that gathers its own food. Coral reefs are created by millions of **tiny** coral polyps clustered together, excreting an exoskeleton base to which they cling.

Venus **flytrap**s, easily identified as plants by their green **leaf**y **appearance**, exhibit behavior that is usually reserved for animals. These plants have "mouths" that clamp shut when insects land inside. The Venus flytrap even lines its mouth pad with a sweet-smelling substance to draw flies and other **bug**s. Whether this counts as hunting is up for debate, but there is no doubt that Venus flytraps move and eat food **in addition** to creating energy from sunlight via photosynthesis. Almost no other plants do this.

With thick "stems," bright colors and waving "petals," **sea anemones** look like beautiful ocean flowers swaying with the tide. **At first glance**, they appear to be plants, but these creatures are animals, and over periods of days or weeks, they can travel short distances.

Plants and animals have many differences, but many similarities as well. Some animals are so similar to plants and **vice versa** that they can be difficult **to classify** at first sight. All living creatures, plants and animals alike, **share** a **common** ancestor, which means that we are all related, in spite of the differences in our cells and senses.[*] '

Ex. 5. Read the text again and say if the following sentences are true (T) or false (F).

1. Some creatures blur the line between plant and animal.

---

[*] URL: https://sciencing.com/characteristics-plants-animals-5491852.html

2. Coral reefs are colorful, underwater gardens located in warm ocean waters.

3. In almost every way, coral looks and behaves like an animal.

4. Venus flytraps are plants.

5. Venus flytraps have thick stems that clamp shut when insects land inside.

6. The Venus flytrap even lines its mouth pad with a sweet-smelling substance to draw flies and other bugs.

7. Sea anemones look like beautiful river flowers swaying with the tide.

8. Sea anemones are animals.

9. Over periods of days or weeks, sea anemones can travel long distances.

10. All living creatures, plants and animals alike, share a common ancestor.

SPEAKING

Ex. 6. Look at figure 11. Make up a summary of the text using these phrases.

I would like to tell you about …
It is a well-known fact that …
Actually, …
In addition to, …
On one hand, … on the other hand,…
In my view, …
In conclusion, I can say that …

Fig. 11

GRAMMAR: Past Simple/ Past Continuous

Ex. 7. Complete the sentences with the correct form of the verbs in brackets.

1. My father… last year. (not work)
2. Where…you… two years ago? (work)

3. I… to the cinema yesterday. (go)
4. I … the e-mail last week. (send)
5. In 2010 we …to Tokyo because my father…a job there. (move, get)
6. Last month I … Bolton . (leave)
7. We decided to move because my mum … find a job. (not can)
8. Where… you last weekend ? (be)

Ex. 8. Put the words in order to form questions in Past Continuous.

1) what, you, were, at 11.00, doing?
2) what, last night, was, she, wearing?
3) lunch, you, were, having, at 12.30?
4) at 10.30, music, you, listening, were?
5) who, you, were, this morning, talking?
6) what, you, this time yesterday, doing, were?
7) at 14.00, you, watching, TV, were?
8) when you went out, it, raining, was?

Ex. 9. Complete the text with the past simple affirmative, negative or question forms of the verbs in brackets.

Louis Pasteur

Fig. 12

As Pasteur (Fig. 12) a) studied at the École Normale in Paris. Then at the age of just 32, he b) (become) _____ a professor at the University of Lille. In 1856, Pasteur c) (receive) _____ a visit from a man called Bigo who d) (own) _____a factory that e) (make) _____ alcohol from sugar beet. He f) (have) _____ a question for Pasteur: why g) (the alcohol/turn/ to acid?) _____ _____? When this h) (happen) _____, they i) (not can) _____ use it and j) (throw) _____ it away. Bigo k) (ask) _____ Pasteur to find out the reason for this. At first, Pasteur l) (not know) _____, but when he m) (examine) _____ the alcohol under a microscope, he n) (find) _____ thousands of tiny micro-

organisms. He o) (believe) _____ that they p) (cause) _____ the problem. q) (milk, wine and vinegar/ behave/ in the same way?) _____? Other scientists r) (disagree) _____ with him, and newspapers s) (make) _____ fun of him. However Pasteur t) (continue) _____ with his work, he u) (invent) _____ methods of testing his theory and v) (prove) _____ that he was right. Later he w) (work) _____ to-gether with two doctors and x) (develop) _____ vaccines for diseases such as anthrax and rabies.[*]

NOTA BENE

> BY
> By and by – постепенно
> by no means – ни в коем случае
> by the way – кстати
> by chance – случайно
> to pay by credit card – платить кредитной картой
> by heart – наизусть
> step by step - шаг за шагом
> by mistake – по ошибке
> by hand – вручную
> by request – по запросу
> by oneself – в одиночку

Ex. 10. Make up your own sentences using word combinations from the box.

UNIT 8
Endangered Plants & Animals List

BEFORE YOU READ

Ex. 1. Look at figure 13 and discuss these questions.

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[*] URL: Vince, M. Macmillan English Grammar in Context Intermediate.
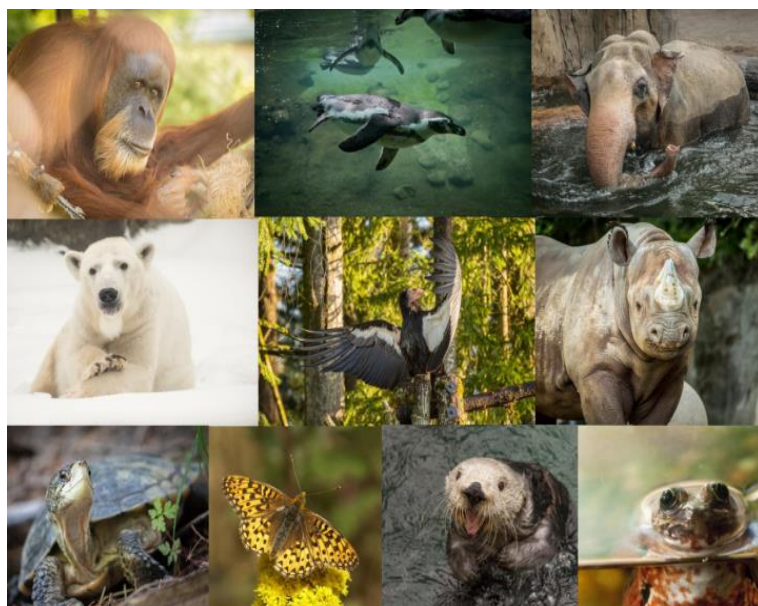
Fig. 13

1. Why is it important to maintain biodiversity?
2. What species are in danger?

VOCABULARY

Ex. 2. Check you understand the key words:

habitat	ginseng
extinction	poaching
endangered	to gain attention
conserve	regenerate
survival	carnivore
community	include
cacti	trap.
provide	

Ex. 3. Match the words to make phrases.

1) to stand on the brink of	a) the World Wildlife Fund
2) to provide nesting places for	b) species
3) to conserve	c) attention
4) to reach	d) future survival
5) endangered	e) their habitats
6) to be at the top	f) maturity
7) According to	g) extinction
8) to gain	h) many types of birds
9) the largest terrestrial	i) of the food chain
10) to guarantee	j) carnivore

READING

Ex. 4. Read the text.

Endangered Plants & Animals List

Across the planet, as **habitats** are lost and populations are decimated, there are thousands of plants and animals that stand on the brink of **extinction** and are considered **endangered**. Many of these have protections afforded to them by organizations, laws and governments. Among the thousands, the World Wildlife Fund has a list of 36 that are considered priority species in the race against extinction. According to the WWF, one of the reasons these 36 are considered a "priority" is because efforts beyond just **conserving** their habitats must be made if they are to be guaranteed future **survival**.

Additional criteria for being listed as a priority are that the species is key to the **food chain**, helps to stabilize or **regenerate** its habitat, is important for the health of **communities** or is an important cultural icon.

Albatross

Among the 36 priority species is the albatross, four species of which are considered to be critically endangered. These are the Amsterdam, Chatham, Tristan and Waved albatrosses. Albatrosses are the largest flying bird and spend 80% of their lives at sea. These birds, which only come to land for breeding, form lifetime pairs.

Cacti

Fig. 14

Cacti (Fig. 14) are among the plants listed as a priority. According to the World Wildlife Fund, cacti are uniquely adapted to their habitats and define many of the landscapes in which they are found. Cacti are important sources of water for many animals in their ecosystems, and **provide** nesting places for many types of birds. Because of collection and habitat loss, many species are near extinction.

Ginseng

Ginseng is an herb that has been used throughout the world for its medicinal qualities since ancient times. Ginseng grows slowly, taking up to six years to reach maturity. In addition to over-harvesting, ginseng is threatened by habitat loss. Most wild-growing ginseng is found in forests, which are being cleared for logging and development.
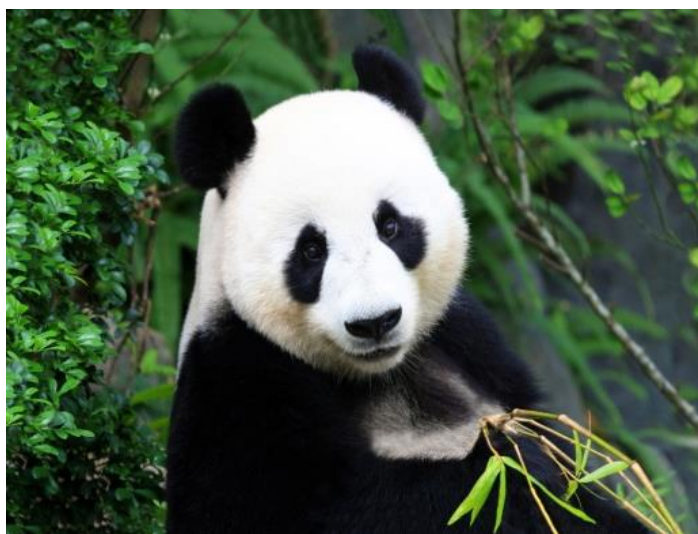
Giant Panda

Fig. 15

A member of the bear family, the Giant Panda (Fig. 15) is threatened by loss of its forest habitat and fragmented populations. **Poaching** is also a threat to the panda. There are more than 50 panda reserves that protect nearly half of the Giant Panda's remaining habitat. About 980 pandas, which make up roughly 61% of its entire population, live on the reserves.

Polar Bear

The polar bear is an endangered species that has **gained attention** in the debate over climate change. The polar bear is the largest terrestrial **carnivore** on earth. An excellent swimmer, the polar bear seeks a habitat where ice covers the arctic sea throughout the year.

Tigers

Fig. 16

Like the polar bear, the tiger (Fig. 16) is important in conservation, because it too is at the top of the food chain in its ecosystem. Three of the nine tiger subspecies are already extinct, and only about 4,000 tigers exist today in the wild.

Tiger populations are threatened most by human activity, which **includes** poisoning, trapping, snaring, shooting and capturing the big cats.

<p style="text-align:center">Cetaceans</p>

Cetaceans include whales, dolphins and porpoises. Among the 80 species in this class, many are on the verge of extinction.[*]

Ex. 5. Complete the sentences 1–10 with the suitable endings a–j.

1. There are thousands of plants and animals that …
2. Among the thousands, the World Wildlife Fund has…
3. Albatrosses …
4. According to the World Wildlife Fund, cacti
5. Ginseng grows…
6. There are more than 50…
7. The polar bear is…
8. Only about 4,000 tigers…
9. Tiger populations
10. Cetaceans include…

a) stand on the brink of extinction.
b) whales, dolphins and porpoises.
c) are the largest flying bird and spend 80% of their lives at sea.
d) a list of 36 that are considered priority species in the race against extinction.
e) the largest terrestrial carnivore on earth.
f) slowly, taking up to six years to reach maturity.
g) exist today in the wild.
h) panda reserves that protect nearly half of the Giant Panda's remaining habitat.
i) are uniquely adapted to their habitats.
j) are threatened most by human activity.

SPEAKING

Ex. 6. Complete the table. What can you tell about each species?

_____

[*] URL : https://sciencing.com/endangered-plants-animals-list-5365747.html

Endangered Plants	Endangered Animals

GRAMMAR: Present Perfect/Present Perfect Continuous

Ex. 7. Choose the correct form of the verbs in the present perfect simple or present perfect continuous.

1. I *have read/ have been reading*. It is very long, and I am only half way.
2. I *have phoned/ I have been phoning* Mary all day, but there is never a replay.
3. I *have learned/ I have been learning* French since childhood.
4. I *have done / I have been doing* the work, so we can go out.
5. I *have eaten/ I have been* eating all the ice-cream, and now I feel sick!
6. I *have done/ I have been doing* sports since childhood.
7. I *have washed/ I have been washing* the vegetables, so you can start cooking them.
8. I *have written/ I have been writing* three letters so far, but I still have to write two more.

Ex. 8. Write questions with *How long* using the present perfect continuous.

1) archaeologists, hope to find Atlantis?
2) physicists, investigate the origin of the universe?
3) biologists, study rare plants?
4) scientists, use satellites to discover new reefs?
5) 5.astronomers, look for the Moon?
6) biologists, try to find new species of mammal?
7) doctors, search for a cure for the disease?
8) scientists, observe Vesuvius?

NOTA BENE

TO To the right – направо to the left – налево face to face – лицом к лицу

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listen to – слушать кого-то (что-то)
belong to – принадлежать кому-либо
speak to – говорить с кем-либо
say to – сказать кому-либо
refer to – ссылаться на
belong to – принадлежать к
attach to – прикрепить к
be connected to – быть подключенным к
be married to – быть замужем за
be related to – быть связанным с
add to – добавлять к
object to – возражать против

Unit 9
Biosphere

BEFORE YOU READ

Ex. 1 Look at figure 17 and discuss these questions.

1. What is biosphere?
2. How do you understand sustainable development?

Fig. 17

VOCABULARY

Ex. 2. Check you understand the key words:

overlap	decrease
prokaryote	carbon dioxide

archaea   clear
unique   oil spills
oxygen   waste
maintain   depend on
flow of energy   sustainable development.
disturb

Ex. 3. Match the words with their definitions.

1) oxygen	a) an organism consisting of just one cell that does not have a clear nucleus
2) carbon dioxide	b) a gas that is present in air and water and is necessary for people, animals and plants to live
3) prokaryote	c) an area of oil that is floating on the surface of the sea
4) oil spill	d) a gas breathed out by people and animals from the lungs or produced by burning carbon
5) waste	e) the steady and continuous movement of something/somebody in one direction
6) sustainable	f) the useless materials, substances, or parts that are left after you use something
7) to clear	g) involving the use of natural products and energy in a way that does not harm the environment
8) flow	h) remove something/somebody
9) plentiful	i) the steady growth of something so that it becomes more advanced, stronger, etc.
10) development	j) available or existing in large amounts or numbers

READING

Ex. 4. Read the text.

Biosphere

The biosphere is made up of the parts of Earth where life exists. The biosphere extends from the deepest root systems of trees, to the dark environment of ocean trenches, to lush rain forests and high mountaintops. Scientists describe the Earth in terms of spheres. The solid surface layer of the Earth is the lithosphere. The atmosphere is the layer of air that stretches above the lithosphere. The Earth's water – on the surface, in the ground, and in the air – makes up the hydrosphere. Since life exists on the ground, in the air, and in the water, the biosphere **overlap**s all these spheres.

The biosphere has existed for about 3.5 billion years. The biosphere's earliest life-forms, called **prokaryotes**, survived without oxygen. Ancient prokaryotes included single-celled organisms such as bacteria and **archaea**. Some prokaryotes developed a unique chemical process. They were able to use sunlight to make simple sugars and **oxygen** out of water and carbon dioxide, a process called photosynthesis. These photosynthetic organisms were so plentiful that they changed the biosphere. Over a long period of time, the atmosphere developed a mix of oxygen and other gases that could sustain new forms of life.

People play an important part in **maintaining** the **flow of energy** in the biosphere. Sometimes, however, people **disrupt** the flow. For example, in the atmosphere, oxygen levels **decrease** and **carbon dioxide** levels increase when people **clear** forests or burn fossil fuels such as coal and oil. **Oil spills** and industrial **waste**s threaten life in the hydrosphere. The future of the biosphere will **depend on** how people interact with other living things within the zone of life.

In the early 1970s, the United Nations established a project called Man and the Biosphere Programme (MAB), which promotes **sustainable development**. A network of biosphere reserves exists to establish a working, balanced relationship between people and the natural world. **Currently**, there are 563 biosphere reserves all over the world.*

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* URL: https://www.nationalgeographic.org/encyclopedia/biosphere/

Ex. 5. Read the text again and choose the correct answer.

1. The … is made up of the parts of Earth where life exists.
a) atmosphere   b) biosphere   c) lithosphere
2. Since life exists on the ground, in the air, and in the water, the bio-sphere … all these spheres.
a) overlaps   b) decreases   c) disturbs
3. The biosphere has existed for about … years.
 a) 2.5 billion   b) 1.5 billion   c) 3.5 billion
4.The biosphere's earliest life-forms, called … , survived without oxygen.
a) plants   b) animals   c) prokaryotes
5. Over a long period of time, the atmosphere developed a mix of … and other gases that could sustain new forms of life.
a) hydrogen   b) air   c) oxygen
6. People play an important part in … the flow of energy in the biosphere.
a) wasting   b) maintaining   c) overlapping
7. … and industrial wastes threaten life in the hydrosphere.
a) Carbon dioxide levels   b) Oxygen levels   c) Oil spills
8. The future of the biosphere will … how people interact with other living things within the zone of life.
a) depend on   b) maintain   c) increase
9. In the early…, the United Nations established a project called Man and the Biosphere Programme (MAB), which promotes sustainable development.
a) 1980s   b) 1970s   c) 1990s
10. Currently, there are… biosphere reserves all over the world.
a) 563   b) 506   c) 536.

SPEAKING

Ex. 6. Work in groups to make a list of materials that are bad for the environment. Think of ways to recycle them.

Materials	Indispensable	Not indispensable	Ways to recycle	Alternative materials
Plastic bags		+		Cloth bags, recycled paper bags

GRAMMAR: Present Perfect / Past Simple

Ex. 7. Choose the correct word or phrase in each sentence.

1) I live here/I've lived here since the end of last year.
2) I'm afraid the last train left/has left an hour ago.
3) Yesterday I lost/ I've lost my wallet.
4) Take your umbrella with you. It started / It's started raining.
5) We are enjoying our trip. We visited/We've visited two countries.
6) This was / has been a busy day and it isn't over yet.
7) I feel really tired we went. We went/'ve been to a party last night.

Ex. 8. Write the past simple and the past participle form of the following verbs.

a) be…*was/were,been*
b) see…   j) lose
c)begin   k) study
d) have   l) work
e) give   m) introduce
f) became   n) win
g) leave   o) bring
h) take   p) think
i) come   q) choose

Ex. 9. Write each verb in brackets into either the present perfect, past simple or present simple.

1. I *work*... for Blue Bank at the moment but I (decide)... to change a job.
2. We (be)... here for hours. Are you sure we (come) ... to the right place?
3. (you see) ... my calculator? I'm sure I (leave)... it here earlier.
4. We (have)... some coffee and then (catch)... the bus home.
5. Recently a lot of young people (take up)... kite surfing.
6. When we (reach) ... the cinema , there (not be) ... any tickets yet.
7. Please come quickly! Nick (have) ... an accident, and he (go)... to hospital.

NOTA BENE

FROM
From time to time – время от времени
from beginning to end – с начала до конца
differ from – отличаться от
graduate from – выпускаться из
translate from – переводить с
protect from – защищать от
suffer from – страдать от
leave from – уезжать в
derive from – происходить из

Ex. 10. Make up your own sentences using word combinations from the box.

UNIT 10
Ecosystem

BEFORE YOU READ

Ex. 1. Look at figure 18 and discuss these questions.

1. What is an ecosystem?
2. How are the species in an ecosystem connected?

Fig. 18

VOCABULARY

Ex. 2. Check you understand the key words:

landscape	rely (on)
like	affect
range	prey
fit	interconnected
pool	consequence
shore	conservationist
complete	concern (with).
seaweed	

Ex. 3. Match the words to make phrases.

1) to rely	a) with climate change
2) to contain	b) on specific vegetation in that area
3) to concern	c) greatly in size
4) to range	d) the entire ecosystem
5) to be made up	e) together with the others
6) to fit	f) in a given area
7) to exist	g) of connected ecosystems
8) direct	h) factors
9) environmental	i) consequences
10) to threaten	j) photosynthesising plants

READING

Ex. 4. Read the text.

Ecosystem

Fig. 19

An ecosystem (Fig. 19) is the term used to describe all of the organisms - plants, animals etc., as well as all the environmental factors - such as **landscape**, weather and climate, which exist in a given area to create a functioning **interconnected** system of life.

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1.

The living portions of a given ecosystem are known as the biotic parts. Biotic, as in biology, includes any living thing. The abiotic factors include the landscape and climate, which more specifically would include weather, water sources, rocks, and temperature.

2.

An ecosystem may seem **like** a large term, but these systems can **range** greatly in size. The entire Earth is made up of connected ecosystems, each which **fits** together with the others around it to make a much larger biome, and further still, a healthy balanced planet. The ecosystems themselves, though, could be very tiny.

One of the smaller examples of ecosystems can be found in tide **pools**. Tide pools occur when ocean water recedes from a beach or **shore**, but leaves behind pools or ponds in indentations on the shore. These pools form **complete** minute ecosystems. They **contain** photosynthesising plants, like algae and **seaweed**, which make their own food.

3.

All parts of an ecosystem are connected, and work together to keep that system balanced and healthy. For example, plant-eating animals within an ecosystem **rely on** specific vegetation in that area for food. The plants, in turn, can only thrive in certain climates, and with specific amounts of precipitation or in certain temperatures. A change in climate could mean a species of plant dies out, which would then directly **affect** the animal that eats it. Indirectly, this would affect any animals which eat those **prey** animals, causing larger indirect **consequences**.

4.

While ecosystems are resilient, they are also so deeply connected, that any major change to one element can spell disaster for that system. This is why **conservationists**, scientists and activists become so deeply **concerned** with both climate change and human industry and its effect on our planet. While removing one plant - say, a particular type of tree for lumber - may seem relatively harmless, the effects can be wide reaching. Many animals may use those trees for **shelter**, homes, or even as food sources, and removing one element could easily **threaten** the entire ecosystem. In the same way, introducing outside species, poaching, or overfishing can remove a key part of an ecosystem which in time may lead to its entire collapse.[*]

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[*] URL: https://www.worldatlas.com/articles/ecosystem.html

Ex. 5. Read the text again and choose the best title for each paragraph.

There is one extra title.

1. Importance Of Maintaining Balance.
2. Connectivity.
3. Biotic And Abiotic.
4. Scale And Size.
5. Climate.

SPEAKING

Ex. 6. Work in pairs. Discuss how species are adapted to survive in an ecosystem. Use these phrases.

Well, here's the basic idea. …
Can you give me an example of that?
Sure. …
Good. That also shows …
I believe…

GRAMMAR: Countable and uncountable nouns

Categories of uncountable nouns	Examples
Liquids	coffee, milk, tea, oil
Solids	bread, butter, meat, silver
Small particles	flour, hair, sand, sugar
Collective (group) nouns	furniture, food, luggage
Abstract nouns	fun, health, honesty, peace
Fields of study	chemistry, law, philosophy
Natural phenomena	rain, sunshine, thunder

Ex. 7. Choose the correct word.

1. Good news make/makes people happy.
2. Chemistry is/are hard to me.
3. Knowledge are/is power.
4. This money belongs/belong to the state.
5. The lectures gave us a lot of different advice/advices.

6. There is/are some chairs around the table.
7. There is/are some furniture in the classroom.

NOTA BENE

> UNDER
> The question under discussion – обсуждаемый вопрос
> under review – рецензируемый
> the article under review – рецензируемая статья
> be under the protection – быть под защитой
> under control – под контролем
> keep one's feelings under control – сдерживать свои чувства
> under consideration – рассматриваемый
> the problem under consideration – рассматриваемая проблема

Ex. 8. Make up your own sentences using word combinations from the box.

UNIT 11
Types of Environmental Ecosystems
Part 1

BEFORE YOU READ

Ex. 1. Discuss these questions.

1. What does an ecosystem consist of?
2. What forests do you know?

VOCABULARY

Ex. 2. Check you understand the key words:

consist (of)	feature
insect	climate type
terrestrial	diverse
grassland	deciduous
dessert	coniferous

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describe   grass
such as   remain.
keep in mind

Ex. 3. Match the words with their definitions.

1) insect	a) living on the land or on the ground, rather than in water, in trees or in the air
2) terrestrial	b) a large area of land that has very little water and very few plants growing on it
3) aquatic	c) growing or living in, on or near water
4) grassland	d) connected with any tree that produces hard dry fruit called cones
5) desert	e) a large area of open land covered with wild grass
6) coniferous	f) any small creature with six legs and a body divided into three parts.
7) deciduous	g) the natural world in which people, animals and plants live
8) environment	h) that loses its leaves every year
9) rainforest	i) the characteristic plants and animals that exist in a particular type of environment, for example in a forest or desert
10) biome	j) a thick forest in tropical parts of the world that have a lot of rain

READING

Ex. 4. Read the text.

Types of Environmental Ecosystems
Part 1

An ecosystem **consists** of all the living and non-living things in a specific natural setting. Plants, animals, **insects**, microorganisms, rocks,

soil, water and sunlight are major components of many ecosystems. All types of ecosystems fall into one of two categories: **terrestrial** or aquatic. Terrestrial ecosystems are land-based, while aquatic are water-based. The major types of ecosystems are forests, **grasslands**, **deserts**, tundra, freshwater and marine. The word "biome" may also be used to **describe** terrestrial ecosystems which extend across a large geographic area, **such as** tundra. **Keep in mind**, however, that within any ecosystem, specific **features** vary widely – for instance, an oceanic ecosystem in the Caribbean Sea will contain vastly different species than an oceanic ecosystem in the Gulf of Alaska.

Forest Ecosystems

Fig. 20

Forest ecosystems (Fig. 20) are classified according to their **climate type** as tropical, **temperate** or boreal. In the tropics, rainforest ecosystems contain more **diverse** flora and fauna than ecosystems in any other region on earth. In these warm, moisture-laden environments, trees grow tall and foliage is lush and dense, with species inhabiting the forest floor all the way up to the canopy. In temperate zones, forest ecosystems may be **deciduous**, **coniferous** or oftentimes a mixture of both, in which some trees shed their leaves each fall, while others **remain** evergreen year-round. In the far north, just south of the Arctic, boreal forests – also known as taiga – feature abundant coniferous trees.

Grassland Ecosystems

Fig. 21

Different types of grassland (Fig. 21) ecosystems can be found in prairies, savannas and steppes. Grassland ecosystems are typically found in tropical or temperate regions, although they can exist in colder areas as well, as is the case with the well-

known Siberian steppe. Grasslands share the common climactic characte-ristic of semi-aridity. Trees are sparse or nonexistent, but flowers may be interspersed with the grasses. Grasslands provide an ideal environment for grazing animals.[*]

Ex. 5. Answer the questions.

1. What is an ecosystem consists of?
2. What are major components of many ecosystems?
3. What categories are all types of ecosystems divided into?
4. How are forest ecosystems classified?
5. Where do deciduous and coniferous trees grow?
6. Where can different types of grassland ecosystems be found?
7. What ecosystems provide an ideal environment for grazing animals?

SPEAKING

Ex. 6. What have you learned from the text?
Look at the figure 22 and give the summary of the text using these phrases.

Fig. 22

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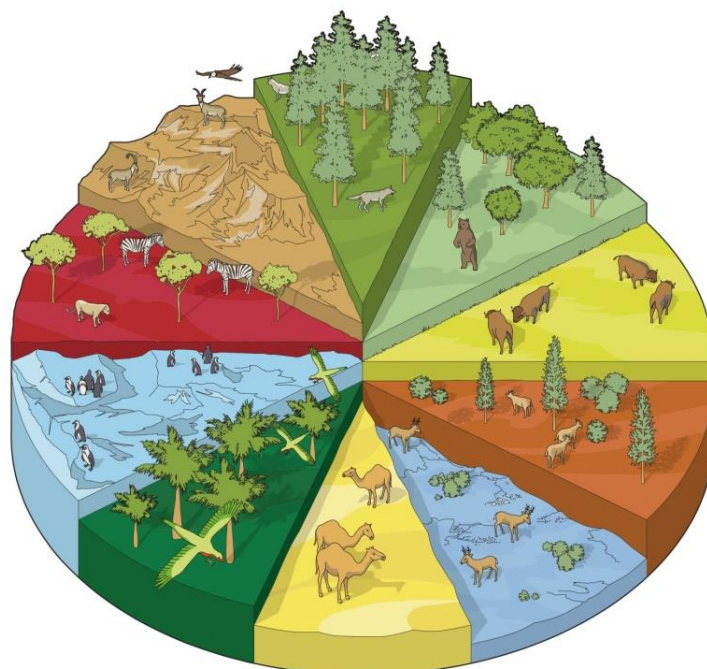
* URL: https://sciencing.com/types-environmental-ecosystems-8640.html

I have learned from the text that…
First of all, …
Moreover, …
Actually, …
The main thing is…
On the one hand …, on the other hand …
To summarize, …

GRAMMAR: Phrasal Verbs

Ex. 7. Complete the sentence with a word from the box.
You can use a word more than one.

Up, about, in, to

1. I need time to think … it. I don't know the answer.
2. I can't talk …someone who doesn't understand the problem.
3. A soon as we arrive … London, we went straight to the hotel.
4. It is pointless to worry … the exam once it's finished.
5. As long as you work hard, you should succeed … your studies.
6. If you don't understand a word, look it … in the vocabulary.

NOTA BENE

ABOUT
Care about – заботиться о чем-либо
talk about – говорить о чем-либо
speak about – говорить о чем-либо
think about – думать о чем-то
be happy about – радоваться чему-то
be excited about – волноваться о чем-то
be angry about – сердиться на кого-то
dream about – мечтать о чем-то
argue about – спорить о чем-то

Ex. 8. Make up your own sentences using word combinations from the box.

UNIT 12
Types of Environmental Ecosystems
Part 2

BEFORE YOU READ

Ex. 1. Discuss these questions.
1. What other ecosystems do you know?
2. How do marine ecosystems differ from freshwater ecosystems?

VOCABULARY

Ex. 2. Check you understand the key words:

precipitation	brief
per year	adapt
latitude	melt
vegetation	lichen
condition	freshwater
harsh	bog
soil	swamp.
permafrost	

Ex. 3. Match the words to make phrases.

1) brief	a) features
2) harsh	b) precipitation
3) common	c) environment
4) low	d) spring and summer
5) sand	e) deserts
6) hot	f) tundra
7) sparse	g) plants
8) underwater	h) dunes
9) shallow	i) vegetation
10) treeless	j) ponds

READING

Ex. 4. Read the text.

Types of Environmental Ecosystems
Part 2

Desert Ecosystems

Fig. 23

The common defining feature among desert ecosystems (Fig. 23) is low **precipitation**, generally less than 25 centimeters, or 10 inches, **per year**. Not all deserts are hot – desert ecosystems can exist from the tropics to the arctic, but regardless of **latitude**, deserts are often windy. Some deserts contain sand dunes, while others feature mostly rock. **Vegetation** is sparse or none-xistent, and any animal species, such as insects, reptiles and birds, must be highly adapted to the dry **conditions**.

Tundra Ecosystems

Fig. 24

As with deserts, a **harsh** environment characterizes ecosystems in the tundra (Fig. 24). In the snow-covered, windswept, treeless tundra, the **soil** may be frozen year-round, a condition known as **permafrost**. During the **brief** spring and summer, snows **melt**, producing shallow ponds which attract migrating waterfowl. **Lichens** and small flowers may become visible during this time of year. The term "tundra" most commonly denotes polar areas, but at lower latitudes, tundra-like communities known as alpine tundra may be found at high elevations.

Freshwater Ecosystems

Fig. 25

Freshwater (Fig. 25) eco-systems can be found in streams, rivers, springs, ponds, lakes, **bogs** and fresh-water **swamps**. They are sub-divided into two classes: those in which the water is nearly stationary, such as ponds, and those in which the water flows, such as creeks. Freshwater ecosystems are home to more than just fish: **algae**, plankton, insects, amphibians and underwater plants also inhabit them.

Marine Ecosystems

Fig. 26

Marine ecosystems (Fig. 26) **differ** from freshwater ecosystems in that they con-tain saltwater, which usually supports different types of species than does freshwater. Marine ecosystems are the most abundant types of eco-systems in the word. They encompass not only the ocean floor and surface but also tidal zones, estu-aries, salt marshes and saltwater swamps, mangroves and coral reefs.[*]

Ex. 5. Complete this table.

Ecosystems	Features
Forest Ecosystems	

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[*] URL: https://sciencing.com/types-environmental-ecosystems-8640.html

Grassland Ecosystems	
Desert Ecosystems	
Tundra Ecosystems	
Freshwater Ecosystems	
Marine Ecosystems	

Ex. 6. Read the text again and say if the following sentences are true (T) or false (F).

1. The common defining feature among desert ecosystems is high precipitation.

2. All deserts are hot.

3. Any animal species in desert ecosystems must be highly adapted to the dry conditions.

4. A harsh environment characterizes ecosystems in the tundra.

5. Tundra-like communities known as treeless tundra may be found at high elevations.

6. Freshwater ecosystems can be found in streams, rivers, springs, ponds, lakes, bogs and freshwater swamps.

7. Freshwater ecosystems are subdivided into two classes: those in which the water is nearly stationary, such as rivers, and those in which the water flows, such as ponds.

8. Freshwater ecosystems are home to fish, algae, plankton, insects, amphibians and underwater plants.

9. Marine ecosystems are the most abundant types of ecosystems in the word.

10. Marine ecosystems contain freshwater.

SPEAKING

Ex. 7. Tell us in detail about one type of an ecosystem. Use these phrases.

I'd like to tell you about…
At first,…
What is more,
Besides, …
Next, …
To my mind, …
In conclusion, I can say that…

GRAMMAR: Modal verbs

Ex. 8. Complete the sentence with an appropriate modal verb.

1. If we carry on behaving as we are, we…*may* end up causing huge problems for future generations.
2. Human activities …damage the environment.
3. Some of the damage we…easily be repaired.
4. Ecosystems…contain a huge number of different species.
5. Loss of one or more species from an ecosystem….unbalance it.
6. When a species….evolve fast enough, it… die out as a result.
7. This…explains the disappearance of the dinosaurs.

Ex. 9. Write the sentences using *why, when* or *where.*

1. Most of us at some time wanted to know… *why* leaves change colour and fall in autumn.
2. It is difficult to predict exactly … this will happen, as it depends on the autumn weather.
3. It also depends on… exactly the tree is growing, since some trees may receive more light than others.
4. The leaves start to change colour … the tree stops making chlorophyll, the substance which gives them a green colour.
5. The trees stop making chlorophyll… there is not enough light for the [process of photosynthesis to work.
6. Other colours in the leaf are hidden by the chlorophyll, and this is … we only see these colours when the tree stops making chlorophyll.

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NOTA BENE

IN
In the street – на улице
in the open air – на открытом воздухе
in the evening – вечером
in fact – на самом деле
in this way – таким образом
be succeed in – иметь успех в
include in – включать
be interested in – интересоваться
arrive in – прибывать
in conclusion – в заключение
in the middle – в середине
in the end – в конце
in a hurry – в спешке
in somebody's opinion – по чьему-то мнению
take part in – принимать участие в

Ex. 10. Make up your own sentences using word combinations from the box.

UNIT 13
Why Are Green Plants Important to the Environment?

BEFORE YOU READ

Ex. 1. Look at figure 27 and discuss these questions.

Fig. 27

1. What do plants provide people for?
2. Can you describe the process of photosynthesis?

VOCABULARY

Ex. 2. Check you understand the key words:

sustainability	through leaves
remove	estimate
byproduct	average
generate	evaporate
transpiration	humidity
absorb	underbrush
chlorophyll	understory.
emit	

Ex. 3. Read the words in the box and complete the following sentences.

> Remove, chlorophyll, food, understory, evaporates, sustainability, through, oxygen, provide, emitting.

1. Green plants form the basis for the … and long-term health of environmental systems.
2. Green plants … carbon dioxide from the atmosphere and generate the oxygen required for life.
3. The green color in plants results from a chemical known as …
4. Photosynthesis consumes carbon dioxide as part of the photosynthetic process, … oxygen as a byproduct.
5. A single large tree can produce enough …for four people in one day.
6. Green plants … natural cooling.
7. Transpiration is the process by which water …from plant pores.
8. Plants also stabilize the soil … their roots.
9. Green plants are the basis of …webs.
10. A tree provides shade for smaller plants growing in the….

READING

Ex. 4. Read the text.

Why Are Green Plants Important to the Environment?

Green plants are not just important to the human environment, they form the basis for the **sustainability** and long-term health of environmental systems. Green plants **remove** carbon dioxide from the atmosphere and **generate** the oxygen required for life. Green plants are also a good source of food and protection.
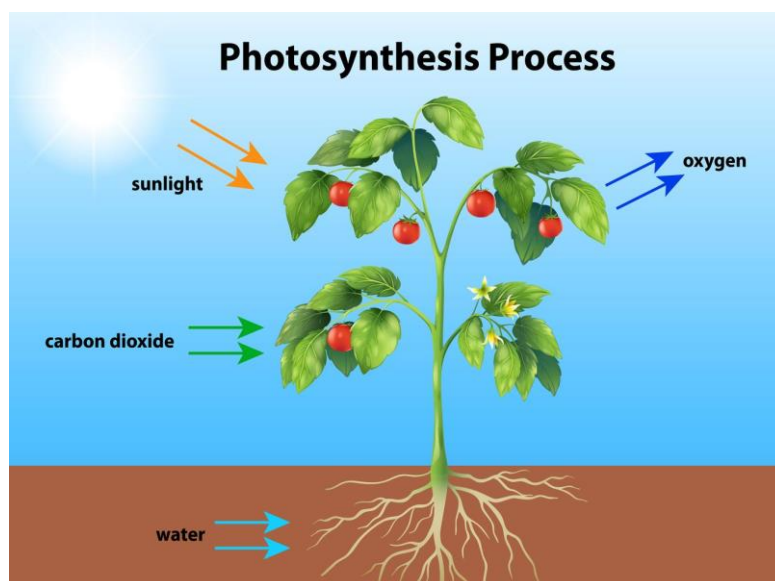

Fig. 28

Photosynthesis

Photosynthesis (Fig. 28) is the process that green plants use to **convert** light into chemical energy, in the form of energy-rich sugars, **required** for growth. The green color in plants results from a chemical known as chlorophyll. Chlorophyll **absorbs** the blue and red portions of the light spectrum but reflects green light, making most plants appear green. Photosynthesis consumes carbon dioxide as part of the photosynthetic process, **emitting** oxygen as a byproduct.

Oxygen

An important byproduct of photosynthesis is oxygen. According to the North Carolina State University, a single large tree can produce enough oxygen for four people in one day.

Carbon Dioxide

Plants use carbon dioxide while photosynthesizing, removing it from the atmosphere. A single tree is **estimated** to absorb 1.33 tons of carbon dioxide per 100 years, an **average** of just over 26 pounds of carbon dioxide per year.

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Natural Cooling and Soil Stabilization

Green plants provide natural cooling. Leaves block the heating effect of the sun. Green plants can also cool through **transpiration**, although without large numbers of trees and other plants this effect is minimal. Transpiration is the process by which water **evaporates** from plant pores, cooling the environment via evaporative cooling. Evaporation consumes heat and is most effective for cooling when the **humidity** is low. Plants also stabilize the soil **through** their roots, which bind soils, and through their leaves, which keep raindrops from eroding soils.

Food

Green plants are the basis of food webs. Animals, birds, insects and microbes feed on green plants. These organisms are subsequently eaten by larger animals, which are themselves eaten by even larger animals.

Protection

Green plants, especially trees but also scrubby **underbrush**, provide cover and shelter for many animals and plants. A tree provides shade for smaller plants growing in the **understory**. The same tree may provide an ideal place for a bird to build a nest.[*]

Ex. 5. Complete the sentences 1–10 with the suitable endings a–j.

1. Green plants remove carbon dioxide from the atmosphere and …
2. Green plants are also a good source of ….
3. Photosynthesis is the process….
4. Chlorophyll absorbs the blue and …
5. An important byproduct of photosynthesis is …
6. A single tree is estimated to adsorb…
7. Green plants can also cool through …
8. Evaporation consumes…
9. Plants also stabilize the soil through …
10. Trees provide cover and shelter for…

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[*] URL: https://sciencing.com/green-plants-important-environment-6169077.html

a) oxygen,

b) transpiration,

c) food and protection,

d) 1.33 tons of carbon dioxide per 100 years,

e) generate the oxygen required for life,

f) heat,

g) their roots,

h) many animals and plants,

i) red portions of the light spectrum but reflects green light,

j) that green plants use to convert light into chemical energy, in the form of energy-rich sugars.

SPEAKING

Ex. 6. Prove the importance of the process of photosynthesis. Use these phrases.

It is a well-known fact that…

Firstly,…

In addition to, …

This happens when…

This process is called …

It takes … and releases…

Thus, …

As a result, …

GRAMMAR: Future Simple/Going to/ Present Continuous

Ex. 7. Put each verb in brackets into a form of <u>will, going to or present continuous</u> . More than one answer may be possible.

1. Have you heard the news? Harry (join) is joining/is going to join the army!

2. Sorry to keep you waiting. I (not be) …long.

3. According to the weather forecast, it (snow)… tomorrow.

4. I'm sorry I can't meet you tonight. I (go out)… with my parents.

5. Our teacher (give)… us a test tomorrow.

6. In fifty years' time, most people probably (ride)… bicycles to work.

7. I (go)… to Manchester at the end of next week.

8. I think our team probably (win)….

NOTA BENE

```
OF
Consist of – состоять из
think of – думать о
be fond of – увлекаться
be proud of – гордиться
take care of – заботиться о
inform of – информировать о
remind of – напоминать о
be afraid of – бояться чего-либо
```

Ex. 8. Make up your own sentences using word combinations from the box.

UNIT 14
Effects of Car Pollutants on the Environment

BEFORE YOU READ

Ex. 1. Discuss these questions.

1. What are the main sources of air pollution?
2. How can people reduce air pollution?

VOCABULARY

Ex. 2. Check you understand the key words:

cause	nitrogen
immediate	highway
long-term	fuel
car exhausts	contaminate
acid rain	coughing
quality	breathe
depletion	vehicle

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harmful   tune-up
ultraviolet radiation   tire check.
sulfur

Ex. 3. Match the words with their definitions.

1) pollutant	a) waste gases that come out of a vehicle, an engine or a machine
2) car exhausts	b) the standard of something when it is compared to other things like it; how good or bad something is
3) blood	c) to make changes to an engine so that it runs smoothly and as well as possible
4) quality	d) a substance that pollutes something, especially air and water
5) to tune	e) the red liquid that flows through the bodies of humans and animals
6) tire	f) a thing that is used for transporting people or goods from one place to another, such as a car or lorry
7) vehicle	g) a pale yellow substance that produces a strong unpleasant smell when it burns and is used in medicine and industry
8) sulfur	h) a thick rubber ring that fits around the edge of a wheel of a car, bicycle, etc.
9) nitrogen	i) black powder that is produced when wood, coal, etc. is burnt
10) soot	j) a gas that is found in large quantities in the earth's atmosphere

READING

Ex. 4. Read the text.

Effects of Car Pollutants on the Environment

Fig. 29

Car pollutants **cause immediate** and **long-term** effects on the environment. **Car exhausts** (Fig. 29) emit a wide range of gases and solid matter, causing global warming, **acid rain**, and harming the environment and human health.

Global Warming

Car pollution is one of the major causes of global warming. Cars and trucks emit carbon dioxide and other greenhouse gases, which contribute one-fifth of the United States' total global warming pollution. Greenhouse gases trap heat in the atmosphere, which causes worldwide temperatures to rise. Warmer global temperatures affect farming, wildlife, sea levels and natural landscapes.

Air, Soil and Water

The effects of car pollution are widespread, affecting air, soil and water **quality**. Nitrous oxide contributes to the **depletion** of the ozone layer, which shields the Earth from **harmful ultraviolet radiation** from the sun. **Sulfur** dioxide and **nitrogen** dioxide mix with rainwater to create acid rain, which damages crops, forests and other vegetation and buildings. Oil and fuel spills from cars and trucks seep into the soil near **highways**, and discarded f**uel** and particulates from vehicle emissions **contaminate** lakes, rivers and wetlands.

Human Health

Particulate matter, hydrocarbons, carbon monoxide and other car pollutants harm human health. Diesel engines emit high levels of particulate matter, which is airborne particles of **soot** and metal. These cause skin and eye irritation and allergies, and very fine particles lodge deep in lungs, where they cause respiratory problems. Hydrocarbons react with nitrogen dioxide and sunlight and form ozone, which is beneficial in the upper atmosphere but harmful at ground level. Ozone inflames lungs, causing chest pains and **coughing** and making it difficult to **breathe.** Carbon monoxide, another exhaust gas, is particularly dangerous to infants and people suffering from heart disease because it interferes with the blood's ability to transport oxygen. Other car pollutants that harm human health include sulfur dioxide, benzene and formaldehyde. Noise from cars is also harmful, damaging hearing and causing psychological ill-health.

Reducing Car Pollution

There are several ways that car and truck owners can reduce the effects of car pollutants on the environment. Old and poorly maintained vehicles cause most pollution from cars, but electric, hybrid and other clean, fuel-efficient cars have a reduced impact. When buying a new car, check the fuel economy and environment label. Keep your **vehicle** well-maintained, with regular **tune-ups** and **tire checks**, and leave the car at home whenever you can. Walk, bike or use public transportation when possible.[*]

Ex. 5. Read the text again and say if the following sentences are true (T) or false (F).

1. Car pollutants cause short-term effects on the environment.
2. Car pollution is one of the major causes of global warming.
3. Oxygen contributes to the depletion of the ozone layer.
4. Sulfur dioxide and nitrogen dioxide mix with rainwater to create acid rain.

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[*] URL: https://sciencing.com/effects-car-pollutants-environment-23581.html

5. Oil and fuel spills from atmosphere seep into the soil near high-ways.

6. Airborne particles of soot and metal cause skin and eye irritation and allergies.

7. Carbon monoxide is particularly dangerous to infants and people suffering from heart disease.

8. Freshwater ecosystems are home to fish, algae, plankton, insects, amphibians and underwater plants.

9. Noise from cars is also harmful, damaging hearing and causing psychological ill-health.

10. Electric, hybrid and other clean, fuel-efficient cars are more harmful to the environment than old vehicles.

SPEAKING

Ex. 6. Work in groups. Look at figure 30 and make a list of things to solve the problem of air pollution. Use these phrases.

The most important thing is…
Actually, …
There is no doubt that…
It's compulsory to …
People mustn't …
As a result, …

Fig. 30

GRAMMAR: Infinitive/Gerund

Forms	Examples
Verbs followed by infinitives verb+ to+ base form	He chooses to live with his parents.

begin, choose, expect, hate, like, love, need, prefer, start, want, would like verb+ pronoun/noun + to+ base form *cause, expect, need, require, tell, want, would like*	The full moon causes lions to hunt.
Verbs followed by gerunds verb+ -ing *begin, enjoy finish, hate, like, love, recommend, start, suggest*	I enjoy reading books.

Ex. 7. Complete the dialogue between to students with the to-infinitive or –ing form of the verbs in brackets.

A: Hey! Stop1) *working* so hard. It's bad for you.

B: It's my English homework. I forgot 2(do)__it last night.

A: Did you? What happened?

B: I wanted 3(finish)__something on the computer and it took ages.

A: I know what you mean. I always put off 4(start) __my homework until the last minute. My parents keep 5(ask)__about it all the time.

B: I don't mind 6(study)___,but it's hard to get started. I should do it because I want to get a good mark.

A: Yeah, I'm trying 7(finish)__that biology project but I've still got lots to do.

B: Me too. I'm planning 8(do)__it this weekend. Anyway, see you later.

NOTA BENE

O_2 – кислород CO – угарный газ CO_2 – углекислый газ CFC – хлорфтороуглерод SO_2 – диоксид серы N_2 - азот H_2 - водород H_2O – вода

Ex. 8. Make up your own sentences using word combinations from the box.

UNIT 15
What Is the Difference Between Human and Natural Air Pollution?

BEFORE YOU READ

Ex. 1. Look at figure 31 and discuss these questions.

1. What is natural air pollution?
2. Why are greenhouse gases harmful for the atmosphere?

Fig. 31

VOCABULARY

Ex. 2. Check you understand the key words:

event	fine particle
responsible	waste disposal
man-made	dry cleaning
damage	mist
visibility	ash
particulate matter	shield
human activities	predict.
reduce	

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Ex. 3. Read the words in the box and complete the following sentences.

Responsible, man-made, shields, include, harm, reduce, global warming, particles, ozone, radon.

1. Human activities are … for man-made pollution.
2. Air pollutants are gases and … that harm people or other life, damage materials or reduce visibility.
3. Burning oil, coal, gasoline and other fossil fuels is a major cause of … air pollution.
4. … is a radioactive gas that seeps from the ground in some areas.
5. … is a pollutant at ground level but beneficial in the upper atmosphere.
6. Ozone … the Earth from harmful ultraviolet rays from the sun.
7. Greenhouse gases that cause …
8. Other greenhouse gases … methane and nitrous oxide.
9. Natural and man-made air pollution … humans, other life and the environment.
10. We can … man-made pollutants and their consequences: respiratory diseases, acid rain and global warming.

READING

Ex. 4. Read the text.

What Is the Difference Between Human & Natural Air Pollution?

The major difference between natural and man-made (Fig.31) air pollution (Fig. 32) is that continuous or temporary natural **events** cause natural air pollution, but human activities are **responsible** for **man-made** pollution.

Fig. 32

Air pollutants are gases and particles that harm people or other life, **damage** materials or reduce **visibility**. Some air pollution comes from volcanic eruptions, forest fires and hot springs, but most is the result to human activities. Power plants, factories, cars and trucks emit carbon dioxide, carbon mono-

xide, hydrocarbons, sulfur dioxide, nitrogen dioxides and **particulate matter** that consists of **fine particles** suspended in the air. Burning oil, coal, gasoline and other fossil fuels is a major cause of man-made air pollution. Other man-made sources of air pollution include:

- **waste disposal**,
- **dry cleaning**,
- paints,
- chemical manufacture,
- wood stoves,
- flour mills.

Natural air pollutants include radon, **fog** and **mist**, ozone, **ash**, soot, salt spray, and volcanic and combustion gases. Radon is a radioactive gas that seeps from the ground in some areas, and fog and mist are both dense water vapor at ground level that obscures vision. Ozone is a pollutant at ground level but beneficial in the upper atmosphere. A molecule made of three oxygen atoms, ozone **shields** the Earth from harmful ultraviolet rays from the sun, but it damages plants and causes breathing problems in the lower atmosphere. Volcanic eruptions and forest, swamp and grass fires launch soot and ash into the atmosphere, which reduces sunlight and lowers temperatures. Eruptions and fires also produce carbon dioxide, carbon monoxide and other polluting gases.

Greenhouse gases that cause global warming have increased 31 percent since preindustrial times. Carbon dioxide and other gases trap heat in the atmosphere, causing global temperatures to rise. Other greenhouse gases include methane and nitrous oxide. Researchers at the National Center for Atmospheric Research still **predict** a 90 percent chance that human activities will cause a 1.7 to 4.9 degree Celsius (3.1 to 8.9 degree Fahrenheit) increase in global temperatures by 2100.

Natural and man-made air pollution harm humans, other life and the environment. We can't **prevent** natural air pollution from sources like volcanoes, but we can **reduce** man-made pollutants and their consequences: respiratory diseases, acid rain and global warming.[*]

Ex. 5. Answer the questions.

1. What is the difference between natural and man-made air pollution?
2. What are major sources of man-made air pollution?

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[*] URL: https://sciencing.com/difference-between-human-natural-air-pollution-23687.html

3. What are natural air pollutants?

4. Why is ozone a pollutant at ground level but beneficial in the upper atmosphere?

5. What gases do volcanic eruptions and forest fires produce?

6. Why do carbon dioxide and other gases cause global warming?

7. How can we reduce man-made pollutants and their consequences: respiratory diseases, acid rain and global warming?

SPEAKING

Ex. 6. Work in groups. Find information about the Copenhagen Protocol and the Kyoto Protocol. Use these phrases.

One of the most important ecological issues of the 21th century is …

The 20th century saw several efforts to reverse human change.

The Copenhagen Protocol in … worked to prevent …

The Kyoto Protocol in … targeted …

These agreements have contributed to minimizing …

We need new international agreements that directly attack 21th century problems.

GRAMMAR: Reported Speech, Reported Questions

Ex. 7. Rewrite these sentences as reported speech. Make all necessary changes.

1. "This is not a fund-raising exercise", says Dalton.

Dalton said (that)…

2. "Ozone shields the Earth from harmful ultraviolet rays from the sun", say researchers.

Researchers said that…

3. "I definitely think this will become a trend", adds Simon.

Simon added that…

4. "Natural and man-made air pollution harm humans", says Camilla.

Camilla said (that)…

5. "We can reduce man-made pollutants and their consequences", adds David.

David added that…

6. "We are not using the lessons learned", says Alan Dalton.

Alan Dalton told us ….

Ex. 8. Complete each sentence, using say, tell or speak in an appropriate form.

1. Daniel … me that he was playing in the school football team.
2. I… to Helen ,and she … she would phone me.
3. " You are lucky", …Steve. "I…you that you would win!"
4. "Look,' I…her, "why don't you…me what you mean?'
5. I …my teacher that I… Chinese, but she doesn't believe me.
6. "I won't be there because I'm having a party",…Lucy.

Ex. 9. Complete the indirect questions in this interview.

A: Could you tell me your name?
B: My name's Maria.
A: I'd also like to know where…
A: I come from Yekaterinburg.
B: I see. Could you tell me where…
A: It's in the Urals.
B: Right. Can you tell me what…
A: Yes, my father' a teacher and my mother's a lawyer.
B: Thanks. Do you know what…
A: I'm thinking of becoming an engineer.

Ex. 10. Rewrite each sentence in reported question, beginning as shown.

1. "Have poaching, illegal hunting and habitat loss reduced tiger numbers dramatically in past decades?"
The teacher asked him if poaching, illegal hunting and habitat loss have reduced tiger numbers dramatically in past decades.
2. "Where is the situation most critical?"
She wanted to know…
3. "Is the key to saving tigers to maintain proper prey density?"
He asked me…
4. "What is the WCS encouraging to set up?"
The teacher wanted to know…
5. "Is the plan, called 'Tiger Forever' will differ from previous conservation attempts?"
She asked me…

NOTA BENE

Collocations: <u>make</u>
to make a discovery
to make a prediction
to make an effort
to make a cake/ some food
to make a mess
to make fiends
to make a mistake
to make a suggestion
to make a phone call

Ex. 11. Make up your own sentences using collocations from the box.

UNIT 16
Top Ways We Can Protect the Habitat of Animals

BEFORE YOU READ

Ex. 1. Look at figure 33 and discuss these questions.

1. Do people affect the life on the planet?
2. Do you recycle paper and plastics?

Fig. 33

VOCABULARY

Ex. 2. Check you understand the key words:

contemporary	sense of belonging
destroy	appreciate
achieve equilibrium	light pollution
deforestation	decompose
awareness	recycle
disturbance	avoid
surround	educate
take care (of)	vital.

Ex. 3. Match the words to make phrases.

1) to cause	a) paper and plastics
2) to achieve	b) single-use plastics
3) to take care of animal	c) equilibrium
4) to avoid	d) massive disturbances in the eco-system
5) to recycle	e) of animals and birds
6) to pollute	f) landscapes
7) to educate	g) the environment
8) natural	h) yourself on problems in the environment
9) to buy	i) mining of resources
10) uncontrollable	j) reusable bags

READING

Ex. 4. Read the text.

Top Ways We Can Protect the Habitat of Animals

Actions humans take every single day are affecting all life on this planet.

• By some **contemporary** estimates, we have lost (meaning, destroyed) close to 50% of our natural landscapes, due to **deforestation**, pollution, and uncontrollable mining of resources.

- With every new road we build on lands that are already overburdened with millions of tons of asphalt, metal, and concrete, we are causing animals that live there to move. That alone can and will cause massive **disturbances** in the ecosystem.

- Even if you think that the Tiger King should not be in jail, do not adopt a wild animal like a tiger. Ever.

There is no discussion about the fact that we can not live on this planet if it were not for animals. The stability of our atmosphere and all the food we eat would not be here if the animal world were not present. If we **destroy** the global population of bees, something you rarely see in some parts of the world, it is game over.

There is such a thing as ***light pollution***. Light pollution can affect the flight patterns of birds (Fig. 34), rendering their usual migration paths impossible to follow. Birds use the bright stars in the sky to determine their route for the next day, and when the city lights interfere with their view, birds can become confused and disoriented.

Fig. 34

There is an incredible number of factors that affect the stability of our ecosystem, but there is an equal number of things you can do to make it **achieve equilibrium**. All of this does make a difference, and all it takes is a little effort and **awareness** about the fragility of life that **surrounds** you.

Spread the Word

Everything you learn, and you are sure that it is beneficial to the environment, try to tell others.

Help If You Can

If you are in physically good health, try to help the communities and groups that take care of animal life in your town. Donating money is always great, but giving a hand is invaluable because it builds **a sense of belonging**. Volunteering is a noble act that everyone should **appreciate**, and you would directly help save animals and their habitats.

Recycle Plastics

There are millions of tons of plastic in the environment: in forests, in rivers, even on the bottom of the ocean, they slowly **decompose** and pol-

lute the ground. If we destroy the land and the oceans with uncontrolled plastics production, we are leaving all the animals without a place to live. **Recycle** as much as you can, and you are doing an incredible favor to the world. Try **to avoid** single-use plastics as they could take up to a thousand years to properly decompose. Instead of drinking from plastic water bottles or accepting store-provided grocery bags, buy reusable ones.

Educate Yourself

The critical thing to do is to **educate** yourself on problems in the environment. Knowing what to do, or even better, what you are possibly doing wrong is **vital** to save the environment and the habitat of animals along with it.

(www.worldatlas.com)

Ex. 5. Complete the sentences below in your own words.

1. By some contemporary estimates, we have lost close to 50% of our natural landscapes, due to …

2. The stability of our atmosphere and all the food we eat would not be here if the animal world …

3. Everything you learn, and you are sure that it is beneficial to the environment, try ….

4. Help if you …

5. If you are in physically good health, try to help the communities and groups that take care of …

6. There are millions of tons of plastic in the environment: in forests, in rivers, even on the bottom of the ocean, they slowly. …

7. Recycle…

8. If we destroy the land and the oceans with uncontrolled plastics production, we are leaving all the animals…

9. Try to avoid …

10. The critical thing to do is to educate yourself on …

SPEAKING

Ex. 6. Work in pairs. Discuss the role of people in nature conservation. Use these phrases.

What do you think about?

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I'd like to say that…
Do you agree/disagree?
As for me, …
What's the situation in …?
I believe that …
Do you really think that …?
May be, …
There must be …
The reason is …
I'd like to point out that …

GRAMMAR: Adjective

Ex. 7. Add – ing or – ed to the adjectives.

> ***Remember:***
> *something is interesting, boring, amusing…*
> *someone feels interested, bored, amused…*

1. The final of the basketball match was very excite *ing* …
2. She was amas … when she heard she had a place at university.
3. It's astonish … what you can do with computers nowadays.
4. They very disappoint … with the results of the experiment.
5. Grey wet weather is depress…
6. I am not surpris… your parents were upset by the exam results.
7. After football training I often feel exhaust …

Ex. 8. Read the information about environmental problems and their solutions. Then make five statements about what you're going to do and five about what you're not going to do to solve these problems.

There are a number of things we can do if we want to help save our planet. For example, if we stop wasting paper, and recycle paper and cardboard, we'll save some of the millions of trees which are cut down every year. As far as he problem of rubbish is concerned, if we recycle bottles and cans and organic waste, and stop taking plastic bags from the supermarket, this will all make a big difference. We also have to stop making unnecessary car journeys so as to cut down air pollution. Try walking or using a bike instead, and if you buy local fruit and vegetables, this reduces

lorry traffic to supermarkets. Water is another problem, and we should all take showers, not baths to save water. Finally, we need to stop using so much energy, so try changing to low-energy light bulbs, and turning off unnecessary lights.

1. I'm not going to _____waste paper.
2. I'm going to_____
3. I'm not going to_____
4. I'm going to_____
5. I'm not going to_____
6. I'm going to_____
7. I'm not going to_____
8. I'm going to_____
9. I'm not going to_____
10. I'm going to_____

NOTA BENE

Collocations: <u>do</u>
to do your homework
to do your best
to do a job
to do the shopping
to do harm
to do math's/history

Ex. 9. Make up your own sentences using word collocations from the box.

UNIT 17
Simple Things We Can Do to Save Natural Resources

<u>**BEFORE YOU READ**</u>

Ex. 1. Look at figure 35 and discuss these questions.

1. Is your family eco-friendly?
2. How can you protect nature?

Fig. 35

VOCABULARY

Ex. 2. Check you understand the key words.

conservation	issue
natural resources	sapling
essential	participate
save	item
overuse	fix
imbalance	hazardous
shortage	effort
lack	follow.

Ex. 3. Match the words to make phrases.

1) hazardous	a) issues
2) essential	b) shortage
3) water	c) using paper unnecessarily
4) leaky	d) wastes
5) to use a cycle	e) faucets
6) lack	f) issues
7) environmental	g) of agricultural growth
8) simple ways	h) in tree conservation projects
9) to participate	i) to save the environment
10) to avoid	j) as means of transport

READING

Ex. 4. Read the text.

Simple Things We Can Do to Save Natural Resources

We've all begun to experience the effects of the **depletion** of natural resources. To live comfortably in the coming years, **conservation** of **natural resources** is extremely **essential.** Just doing a little bit, can make a vast difference, and help us **save** some of these wonderful natural resources for the coming generations.

There is something called a balance in nature. As we continue to **overuse** natural resources, a serious **imbalance** has been caused. Deforestation, depletion of oil and gas, **shortage** of water and power, soil erosion leading to **lack** of agricultural growth, are all contributing to environmental **issues** such as global warming and environmental pollution.

Take a look at how you can do your bit and contribute to these simple ways to save the environment.

Conserving Trees

Trees give us the oxygen we breathe, the paper we use, the fruit we eat, the shade we need from the brutal sunlight, and are essential for the survival of wildlife. To save this indispensable natural resource, find out how to go green at home.

Fig. 36

• Avoid using paper unnecessarily. For instance, printing every piece of information is not necessary.

• Plant a tree (Fig. 36). You can plant a **sapling** in your name, and watch it grow over the years, as your bit for the environment.

• Don't limit conservation only to yourself and your home or office. Spread the word, and **parti-cipate** in tree conservation projects that happen in your locality, town or city.

Conserving Water

Water is a basic resource for all our activities. We clean with water, we cook with water, and the production of every **item** of use requires the use of water. Several parts of the world are now **facing** a water shortage because of the way in which it is being used.

- Firstly, if you have any leaky faucets or those that don't work properly, get them **fixed**.

- Use a bucket of water to bathe rather than using the shower. You may not realize how much water you are wasting when you use a shower for a bath.

- Stop dumping things in the seas and rivers and lakes. Not only does marine life get affected, the water becomes polluted and dangerous for use thereafter.

Conserving Energy

The prime use of energy comes from oil and gas, which power the vehicles we drive. However, the increasing number of cars and the amount of pollution that is caused as a result, is now becoming **hazardous** and leading to several health problems.

Fig. 37

- Try to avoid using your vehicle as much as possible. Try to use public transport (Fig. 37). If you live close to your work place, choos to walk instead of taking your car. It saves the environment and it's healthy for you too.

- Wherever and whenever possible, try to use a cycle as a means of transport. This is one of the best ways of conserving natural resources.

- Invest in lower energy consuming lights and bulbs. Avoid the use of halogens and other such lights. Also remember to switch off all your electrical appliances when not in use.

Natural resources conservation can be done in several other ways too. Simply making an **effort** to spread the word is a great way of doing your bit for the world you live in. Set an example for others **to follow** when

it comes to the conservation of natural resources, that is so fundamental for the survival of mankind in these trying times.[*]

Ex. 5. Complete the sentences 1–10 with the suitable endings a–j.

1. To live comfortably in the coming years, conservation of …
2. As we continue to overuse natural resources, a serious …
3. Trees are essential for …
4. Avoid …
5. Participate in tree conservation projects that …
6. Plant…
7. Several parts of the world are now facing …
8. Stop dumping things …
9. Also remember to switch off …
10. If you live close to your work place, choose to walk instead of …

a) happen in your locality, town or city.
b) imbalance has been caused.
c) using paper unnecessarily.
d) trees.
e) a water shortage.
f) in the seas and rivers and lakes.
g) the survival of wildlife.
h) all your electrical appliances when not in use.
i) taking your car.
j) natural resources is extremely essential.

SPEAKING

Ex. 6. Work in groups. Present your project on *What Can We Do to Save Nature*. Use a sample.

Conservation of nature is extremely essential. We can help save some of natural resources for the coming generations**.**
We should do simple things:
1)
2)
3)

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[*] URL: https://helpsavenature.com/conservation-of-natural-resources

We shouldn't … :

1)

2)

3)

To summarize, we should set an example for others to follow that is so important for the survival of mankind in future.

GRAMMAR: Conditional Sentences

Ex. 7. Write the verb in brackets into the correct form. It is first or second conditional?

1. If you (*work*) hard, you would pass the exam.
2. If I (have) a motorbike, I will ride it to school.
3. Would you mind it I (borrow) your bicycle?
4. Come on! Unless we hurry, we (miss) the plane!
5. What would you do if you (see) a spider?
6. If the plants shut, over 100 people (lose) their jobs.
7. If you (go) to live in a different country, will you send me e-mails ?
8. We'll go out for a walk unless it (rain).

NOTA BENE

Symbol	In words	Example
=	is, equals, comes to	$0.125 = 1/8$ Point one two five equals one eighth.
+	and, plus, add	$5 + 2 = 7$ Five plus two equals seven.
-	minus, less, subtract	$5 - 2 = 3$ Five minus two is three.
x, *	times, multiplied by	$5 \times 2 = 10$ Five times two comes to ten.
÷, /	over, divided by	$10 \div 5 = 2$ Ten over five is two.

Ex. 8. Write down your own examples using the symbols from the box.

ENGLISH–RUSSIAN GLOSSARY

Absorb – [əbˈzɔːrb] – поглощать, впитывать

according to – [əˈkɔrdɪŋ] [ˌtu] – согласно с , в соответствии с

achieve equilibrium – [əˈtʃiv i] [ekwɪˈlɪbriəm] –достичь равновесия

acid rain – [æsɪd] [reɪn] – кислотный дождь

adapt – [əˈdæpt] – приспособиться

affect – [əˈfekt] – влиять, воздействовать

allow – [əˈlaʊ] – позволять

ambush – [ˈæmbʊʃ] – засада, ловушка

appearance – [əˈpɪərəns] – внешность, вид

appreciate - [əˈpriːʃieɪt] – ценить, дорожить

approach – [əˈprəʊtʃ] – подход, метод; приближаться

argue – [ˈɑːgjuː] – спорить

ash – [æʃ] – пепел

at first glance – [ət] [fɜːst] [glɑːns] – на первый взгляд

attack - [əˈtæk] – атака, нападение

attract – [əˈtrækt] – привлекать

available food – [əˈveɪləbl] [fuːd] – доступная еда

average – [ˈævərɪdʒ] – средний

avoid – [əˈvɔɪd] – избегать

awareness – [əˈweənəs] – осведомленность

because of – [bɪˈkɒz] [əv] – потому что

bee – [biː] – пчела

behavior – [bɪˈheɪvjə] – поведение

beneficial – [ˌbenɪˈfɪʃəl] – выгодный

benefit – [ˈbenɪfɪt] – выгода

bog – [bɒg] – трясина

brain – [breɪn] – мозг

breathe – [briːð] – дышать

brief – [briːf] – краткий

bug – [bʌg] – жук

byproduct – [ˈbaɪˌprɑdəkt] – побочный продукт

cacti – [ˈkæktaɪ] – кактус

car exhausts – [kɑːr] [ɪgˈzɔːst] – автомобильные выхлопы

carbon – [ˈkɑːbən] – углерод

carbon dioxide – [ˈkɑːbən] [daɪˈɒksaɪd] – углекислый газ

carnivore – [ˈkɑːnɪvɔː] – плотоядное животное

cause – [kɔːz] – причина

cell – [sel] – ячейка, клетка
chimp – [ʧɪmp] – шимпанзе
chlorophyll – [ˈklɒrəfɪl] – хлорофилл
choice – [tʃɔɪs] – выбор
classify – [ˈklæsɪfaɪ] – классифицировать
clear – [klɪə] – понятно, ясно
climate type – [ˈklaɪmət] [taɪp] – тип климата
common – [ˈkɒmən] – общий
community – [kəˈmjuːnəti] – сообщество
compete – [kəmˈpiːt] – конкурировать
complete – [kəmˈpliːt] – полный
concern (with) – [kənˈsɜːn] – заниматься
condition – [kənˈdɪʃn] – состояние
coniferous – [ˈkɒnɪfər] – хвойный
consequence – [ˈkɒnsɪkwəns] – последствие
conservation – [ˌkɒnsəˈveɪʃən] – сохранение
conservationist – [ˌkɒnsəˈveɪʃ(ə)nɪst] – защитник природы
conserve – [kənˈsɜːv] – сохранять
consist (of) – [kənˈsɪst] – состоять (из)
contain – [kənˈteɪn] – содержать
contaminate – [kənˈtæmɪneɪt] – загрязнять
contemporary – [kənˈtemprəri] – современный
convert – [kɒnˈvɜːt] – превращать, конвертировать, переводить
coughing – [ˈkɒfɪŋ] – кашляющий
creature – [ˈkriːtʃə] – существо
damage – [ˈdæmɪdʒ] – повреждение, урон , ущерб
deciduous – [dɪˈsɪdjuəs] – лиственный
decompose – [ˌdiːkəmˈpəʊz] – разбирать
decrease – [ˈdiːkriːs] – уменьшать
define – [dɪˈfaɪn] – определять
deforestation – [diːfɒrɪˈsteɪʃən] – вырубка леса
depend on – [dɪˈpend] [ɒn] – зависит от
depletion – [dɪˈpliːʃən] – истощение
describe – [dɪˈskraɪb] – описывать, характеризовать
despite – [dɪˈspaɪt] – несмотря на
desert – [dɪˈzɜːt] – пустыня
destroy – [dɪˈstrɔɪ] – уничтожать
detect – [dɪˈtekt] – обнаружить
determine – [dɪˈtɜːmɪn] – определять

develop – [dɪˈveləp] – развивать

development – [dɪˈveləpmənt]– развитие, рост

disturb – [dɪˈstɜːb] – беспокоить

disturbance – [dɪˈstɜːbəns] – нарушение

diverse – [daɪˈvɜːs] – разнообразный

domestic – [dəˈmestɪk] – внутренний, местный, домашний

dry cleaning – [draɪ] [ˈkliːnɪŋ]– химчистка

educate – [ˈedjʊkeɪt] – обучать

effort – [ˈefət] – усилие

emit – [ɪˈmɪt] – испускать

(the) environment – [ɪnˈvaɪərənmənt] – окружающая среда

essential – [ɪˈsenʃl] – существенный

estimate – [ˈestɪmət] – оценивать

evaporate – [ɪˈvæpəreɪt] – испаряться

event – [ɪˈvent] – событие

experience – [ɪkˈspɪəriəns] – опыт

extinction – [ɪkˈstɪŋkʃən] – вымирание

extract – [ˈekstrækt] – извлекать

face – [feɪs] – лицо; сталкиваться

feature – [ˈfiːtʃə] – особенность

fine particle – [faɪn][ˈpɑːtɪkl] – мелкодисперсная частица

fit – [fɪt] – подходить

fix – [fɪks] – исправить

flow – [fləʊ]– поток

flytrap – [ˈflaɪtræp] – мухоловка

follow – [ˈfɒləʊ] – следовать

food chain – [fuːd] – пищевая цепочка

freshwater – [ˈfreʃˌwɔːtə] – пресноводный

fuel – [ˈfjuːəl] – топливо

fungus – [ˈfʌŋgəs] – грибок

gain attention – [geɪn] [əˈtenʃn] – привлечь внимание

gene – [dʒiːn] – ген

generate – [ˈdʒenəreɪt] – генерировать

generation – [ˌdʒenəˈreɪʃn] – поколение

genus – [ˈdʒiːnəs]– род

gesture – [ˈdʒestʃə] – жест

ginseng – [ˈdʒɪnseŋ] – женьшень

grass – [grɑːs] – трава

grassland – [ˈgrɑːslænd] – пастбище

habitat – [ˈhæbɪtæt] – среда обитания
harmful – [ˈhɑːmfl] – вредный
harsh – [hɑːʃ] – суровый
hazardous – [ˈhæzədəs] – опасный
hierarchy – [ˈhaɪərɑːki] – иерархия
highway – [ˈhaɪweɪ] – шоссе
hive – [haɪv] – улей
however – [haʊˈevə] – однако
human activity – [ˈhjuːmən] [ækˈtɪvɪti] – деятельность человека
humidity – [hjuːˈmɪdɪti] – влажность
imbalance – [ˌɪmˈbæləns] – дисбаланс
immediate – [ˈɪmiː dɪət] – немедленный
in addition – [ɪn][əˈdɪʃn] – в дополнение
in fact – [ɪn] [fækt] – на самом деле
include – [ɪnˈkluːd] – включать
individual – [ˌɪndɪˈvɪdʒuəl] – индивидуальный
insect – [ˈɪnsekt] – насекомое
interconnected – [ˌɪntəkəˈnekt] – взаимосвязанный
interpret – [ɪnˈtɜːprɪt] – интерпретировать
intimidate – [ɪnˈtɪmɪdeɪt] – запугивать
issue – [ˈɪʃuː] – вопрос
item – [ˈaɪtəm] – пункт
keep in mind – [kiːp] [ɪn] [maɪnd] – иметь в виду
lack – [læk] – отсутствие
landscape – [ˈlændskeɪp] – пейзаж
latitude – [ˈlætɪtjuːd] – широта
leaf –[liːf] – лист
lean – [liːn] – опираться, наклоняться
lichen – [ˈlaɪkən] – лишайник
light pollution – [laɪt][pəˈluːʃn] – световое загрязнение
like – [laɪk] – как, подобно
long–term – [ˌlɒŋˈtɜːm] – долгосрочный
loss – [lɒs] – потеря
maintain– [meɪnˈteɪn] – поддерживать
major – [ˈmeɪdʒə] – главный
mammal – [ˈmæməl] – млекопитающее
man–made – [ˌmænˈmeɪd] – рукотворный
mark the boundaries – [mɑːk] [ðə] [ˈbaʊndəriz] – отметить границы

mean – [miːn] – означать
melt – [melt] – плавиться
mist – [mɪst] – туман
moisture – [ˈmɔɪstʃə] – влажность
natural resources – [ˈnætʃrəl] [rɪˈzɔːsiz] – природные ресурсы
nitrogen – [ˈnaɪtrədʒən] – азот
nutrient – [ˈnjuːtriənt] – питательный
oil spills – [ɔɪl] [spɪl] – разливы нефти
order – [ˈɔːdə] – приказ
overlap – [ˌəʊvəˈlæp]– перекрытие
overuse – [ˌəʊvəˈjuːz] – злоупотребление
oxygen – [ˈɒksɪdʒən] – кислород
participate – [pɑːˈtisipeit] – участвовать
particulate matter – [pəˈtɪkjuːlət] [ˈmætə] – твердая частица
per year – [pə] [jɪə] – в год
perform a task – [pəˈfɔːm] [ə] [tɑːsk] – выполнить задачу
permafrost – [ˈpɜːməfrɒst] – вечная мерзлота
permit – [ˈpɜːmɪt] – разрешать
petals – [ˈpetəl] – лепестки
poaching – [pəʊtʃɪŋ] – браконьерство
pollen – [ˈpɒlən] – пыльца
pool – [puːl] – бассейн
possess – [pəˈzes] – обладать
pot – [pɒt] – горшок
precipitation – [prɪˌsɪpɪˈteɪʃən] – осадок
predator – [ˈpredətər] – хищник
predict – [prɪˈdɪkt] – прогнозировать
prevent – [prɪˈvent] – предотвращать, не допускать
previous – [ˈpriːviəs] – предыдущий
prey – [preɪ] – добыча
prokaryote – [prəʊˈkærɪəʊt] – прокариот
provide – [prəˈvaɪd]– обеспечивать
puzzle – [ˈpʌzl̩] – головоломка
quality – [ˈkwɒləti] – качество
range – [reɪndʒ] – диапазон
recycle – [ˌriːˈsaɪkl̩] – перерабатывать
reduce – [rɪˈdjuːs] – уменьшить
regenerate – [rɪˈdʒenəreɪt] – регенерировать
release – [rɪˈliːs] – освобождать

rely (on) – [rɪˈlaɪ] – полагаться (на)
remain – [rɪˈmeɪn] – оставаться
remove – [rɪˈmuːv] – удалить
require much effort – [rɪˈkwaɪə] [mʌtʃ][ˈefət] – требуют больших усилий
research – [rɪˈsɜːtʃ] – исследование
research affiliate – [rɪˈsɜːtʃ əˈfɪlieɪt] – партнер по исследованиям
researcher – [rɪˈsɜːtʃ ə] – исследователь
resemble – [rɪˈzembl] – походить, напоминать
responsible – [rɪˈspɒnsəbl] – ответственный
rodent – [ˈrəʊdənt] – грызун
sapling – [ˈsæplɪŋ] – молодое деревце
save – [seɪv] – сохранить, сберечь
scent – [sent] – запах, обоняние
sea anemone – [siː] [əˈneməni] – морской анемон
seed – [siːd] – семя
seem – [siːm]– казаться, выглядеть
sense of belonging – [sens] [əv] [bɪˈlɒŋ] – чувство принадлежности
sense – [sens] – чувство
shade – [ʃeɪd] – тень
share characteristics – [ʃeə] [ˌkærɪktəˈrɪstɪks] – общие характеристики
shield – [ʃiːld] – щит
shore – [ʃɔː] – берег
shortage – [ˈʃɔːtɪʒ] – нехватка
sight – [saɪt] – взгляд
similarity – [ˌsɪmɪˈlærɪti] – сходство
soil – [sɔɪl] – почва
species – [ˈspiːʃiːz] – вид
sprout – [spraʊt] – росток
striking – [ˈstraɪkɪŋ] – поразительный
substance – [ˈsʌbstəns] – вещество
such as – [sʌtʃ] [əz] – такие, как
sulfur – [ˈsʌlfər] – сера
sunflower – [ˈsʌnˌflaʊə] – подсолнух
surround – [səˈraʊnd] – окружать
survival – [səˈvaɪvəl] – выживание
sustainability – [səˈsteɪnəbiliti] – устойчивость
sustainable development – [səˈsteɪnəbl̩] [dɪˈveləpmənt] – устойчивое развитие

swamp – [swɒmp] – болото
take care (of) – [teɪk] [keə] – заботиться (о)
terrestrial – [təˈrestriəl] – земной
threaten – [ˈθretn] – угрожать
through leaves – [θruː] [liːvz] – сквозь листья
tiny – [ˈtaɪni] – крошечный
tire check – [ˈtaɪə] [tʃek] – проверка шин
track – [træk] – дорожка
transpiration – [trænspəˈreɪʃn] – транспирация
trap – [træp] – ловушка
tray – [treɪ] – лоток, миска
tune–up – [ˈtjuːnʌp] – настройка, наладка
ultraviolet radiation – [ˌʌ<u>ltr</u>əˈvaɪələt] [ˌreɪdiˈeɪʃən] – ультрафиолетовое излучение
unclear – [ʌnˈklɪə] – непонятный, туманный
underbrush – [ˈʌndəˌbrʌʃ] – подлесок
understory – [ˈʌndəstɔːrɪ] – подлесок
unique – [juˈniːk] – уникальный
various – [ˈve(ə)rɪəs] – различный
vegetation – [ˌvedʒɪˈteɪʃən] – растительность
vehicle – [ˈviːəkl] – транспортное средство
vice versa – [vais][ˈvɜːsə] – наоборот
vertebrate – [ˈvɜːtɪbrət] – позвоночное животное
via – [ˈvaɪə] – через
visibility – [ˌvɪzɪˈbɪlɪti] – видимость
visible – [ˈvɪzəbl] – видимый
vital – [ˈvaɪtl] – жизненно важный
warn – [wɔːn] – предупреждать
waste – [weɪst] – отходы
waste disposal – [weɪst] [dɪˈspəʊzəl] – утилизация отходов

РЕКОМЕНДУЕМАЯ ЛИТЕРАТУРА

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