

Living things

ANSWER KEY

C O N T E N T S

- My Science box 2
- What do you know about living things? 3

- What are living things? 5
- What is nutrition? 6
- How do living things reproduce? 7
- How do living things sense their surroundings? 8
- What are cells? 9
- What are animal cells like? 10
- What are plant cells like? 11
- How are animal cells and plant cells different? 12
- What are specialised cells? 13
- How are cells organised? 14
- What are animals? 15
- What are plants? 16
- What are fungi? 17
- What are protists? 18
- What are bacteria? 19
- What are viruses? 20
- How are living things different? 21
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Audio



Cut-outs



STEAM
activity



Digital
resource



Sustainable
Development Goals





MY SCIENCE BOX

You will make and do many exciting things!

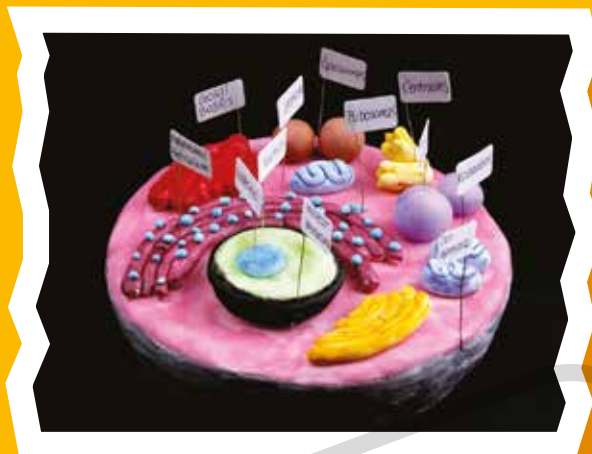
AN ANIMAL CELL MODEL

A PLANT CELL MODEL

YOUR OWN YOGURT

AN EXPERIMENT ON MOULD

A BUG HOTEL

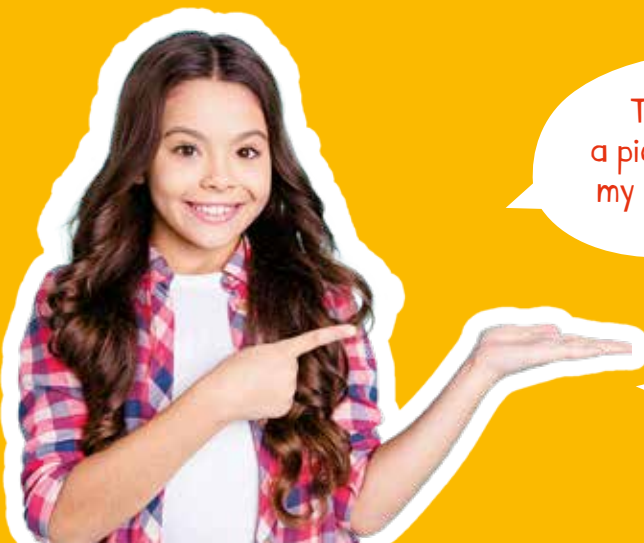


Make a Science box to keep your work in.

- FIND A LARGE CARDBOARD BOX.
- COVER IT WITH COLOURED PAPER.
- WRITE MY SCIENCE BOX AND YOUR NAME ON THE SIDE.



Share your collection.



This is a picture of my yogurt.

This is my animal cell model.

This is my plant cell model.

This is a picture of the mould.

This is my bug hotel.

WHAT DO YOU know ABOUT LIVING THINGS ?

➔ Look at the photos and answer the questions.

WHAT DO LIVING THINGS GET FROM FOOD?



Living things get energy from food.

WHAT IS THE MAIN DIFFERENCE BETWEEN PLANTS AND ANIMALS?



Plants make their own food.

Animals feed on other living things.

HOW DO BIRDS REPRODUCE?



Birds lay eggs that hatch.

HOW DO SEED PLANTS REPRODUCE?



Seed plants produce seeds.

HOW DO ANIMALS REACT TO THEIR SURROUNDINGS?



Animals use their sense organs.

DO FROGS HAVE A BACKBONE?



Frogs have a backbone.

WHAT DO YOU know ABOUT LIVING THINGS ?

Complete the first two columns of the KWL chart. Model answer (M. A.)

I know living things need food to get energy.

I want to know what a cell is like.

COMPLETE THIS COLUMN WHEN YOU FINISH YOUR NOTEBOOK

What I already **Know**

What I **Want** to know

What I have **Learnt**

I know living things need food to get energy.

I know plants make their own food.

I know animals feed on other living things.

I know birds lay eggs.

I know seed plants produce seeds.

I know animals use their sense organs to react to their surroundings.

I want to know what a cell is like.

I want to know how plants make their own food.

I want to know how plants reproduce.

I want to know the difference between animal cells and plant cells.

I want to know how animals are classified.

I can distinguish between animal cells and plant cells.

I can describe the levels of organisation of cells.

I can name some specialised cells in the human body.

I can classify organisms into the five kingdoms.

I understand why biodiversity is important to humans.

What are living things?

1 Listen and complete the flap book about life processes. (See page 29.)



PAGE 29



All living things carry out three basic life processes:

- nutrition
- reproduction
- sensitivity



2 Are robots living things? Why or why not? Think about it and write your answers. (M. A.)

- Do robots get energy by eating?

No, they do not eat food. They get energy from electricity.

- Do robots respond to their environment?

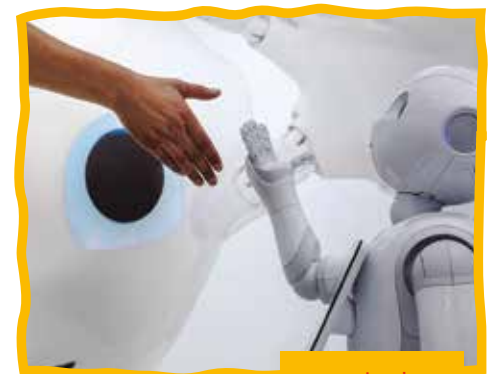
Yes, robots can detect and respond to changes in their environment.

- Can robots reproduce?

Robots cannot reproduce.

- Are robots living things?

Robots are not living things because they do not carry out the three life processes.



robot

What is nutrition?

3 Match and make sentences about what animals eat.

Nutrition is the process by which living things get energy and raw materials from food.

But they do this in different ways.

- **Animals** feed on other living things.
- **Plants** make their own food.



giraffe



bear

What do animals eat?

HERBIVORES	mostly eat the meat or flesh of other animals.	Examples include bears, robins and ants.
CARNIVORES	eat plants, the flesh of other animals, algae and fungi.	Examples include cows, rabbits and grasshoppers.
OMNIVORES	mostly eat plants, grass, leaves, fruits, nuts or roots.	Examples include cats, sharks, eagles and spiders.

4 Listen and complete the text about plant nutrition.



Plants make their own food.

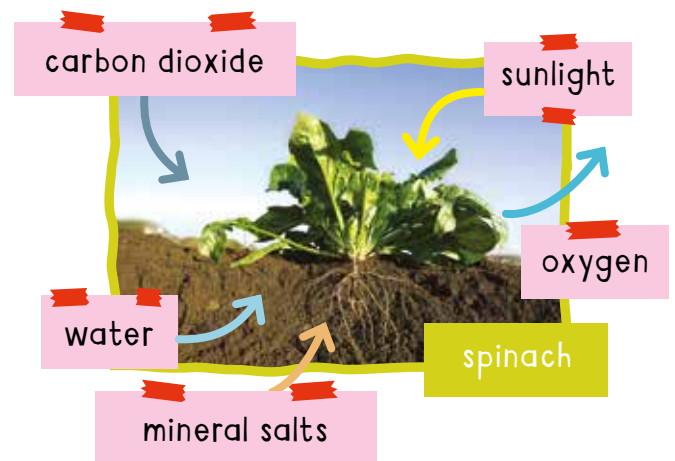
This process is called photosynthesis.

To do this, plants need sunlight, carbon dioxide,

water and mineral salts. During

photosynthesis, plants release oxygen.

PHOTOSYNTHESIS



5 Are humans omnivores, herbivores or carnivores? Why?

(M. A.)

Human beings are omnivores because we eat plants, the flesh of other animals, algae and fungi.

For example, we eat eggs, fruits, fish and mushrooms.



I can improve biodiversity



Biodiversity is the variety of living things on Earth. There are millions of different species of living things in the world.

Biodiversity is important to humans for many different reasons. It is our main source of food and raw materials.

However, many species are disappearing as a result of human activities, such as deforestation, pesticides, pollution and climate change.



Watch the video. Choose and write some benefits we get from biodiversity. **M. A.**



Why is biodiversity important?

The variety of living things makes ecosystems strong and healthy. We get many benefits from them.

- Clean water for us to drink and food to eat.
- Pure air for us to breathe.
- A regular climate, with fewer extreme weather phenomena.
- Resources and raw materials for construction, clothing or paper.



MY SCIENCE BOX

A BUG HOTEL **O. A.**

- Make a house for important invertebrates like bees.
- Gather bamboo canes and cut them to the same lengths.
- Tie string around them to hang them.
- Hang the bug home in a warm spot.
- Wait to see who comes to visit and take a photo for your Science box.



SAVE IT IN YOUR SCIENCE BOX!

GAME TIME!

CHECK
YOUR
SPELLING!

Do the living things quiz. Time it. How fast have you written the answers?

TIMING: 15 minutes

M. A.

START

1

The process by which living things get energy and raw materials from food is

nutrition

2

The basic units of life are

cells

3

The "brain" of a cell is the

nucleus

4

The liquid inside a cell is the

cytoplasm

5

The flexible wall that lets substances in and out of the cell is the

cell membrane

9

Animals feed on

other living things

8

A group of similar cells with the same function is a

tissue

7

The rigid part that supports a plant cell is the

cell wall

6

Specialised parts contained in the cytoplasm are

organelles

10

Plants are

multicellular

11

There are unicellular fungi and

multicellular fungi

12

Protozoa often live inside animals and can cause

human diseases

13

The smallest and simplest living things are

bacteria

14

Viruses are not made up of

cells

FINISH



MY CONCEPT MAP

Cut out the photos and complete the concept map about living things.



PAGE 39

Plants



seed plants



seedless plants

Animals



vertebrates



invertebrates

THE FIVE KINGDOMS OF LIVING THINGS

Protoctists



protozoa



algae

Bacteria



Fungi



mushroom



mould



yeast

SUMMARY

COMPLETE
YOUR KWL
CHART
ON PAGE 4.

Complete the summary. Listen and check your answers.

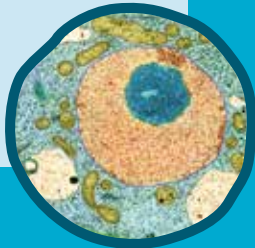


All organisms are made up of **cells**.
Cells are the basic units of life.

Multicellular living things are made up of thousands of millions of cells.

Unicellular living things are made up of just one

cell



In multicellular organisms, cells are organised into **levels**. They work together to carry out specialised functions. The levels are cells, tissues, organs, organ systems and

organism



All living things are classified into **five** groups, called **kingdoms**: animals, plants, fungi, protists and bacteria.

Animals are multicellular organisms. They feed on other living things and they are able to move

around



Plants are also multicellular organisms. They make their own food through

photosynthesis



Fungi can be unicellular or multicellular. They feed on other living things and cannot

move around



Bacteria are unicellular. They are the smallest and simplest

living things



Protists can be unicellular or multicellular. Some protists, such as algae, can make their own

food



Viruses are not considered living things. They can only reproduce inside other living things.

Check your progress!



Do the multiple-choice test.

1. All cells have...

- a. a membrane, a cell wall and a nucleus.
- b.** a membrane, cytoplasm, organelles and a nucleus.
- c. cytoplasm, a cell wall, chloroplasts and organelles.

2. A tissue is a group of...

- a.** similar cells with the same function.
- b. organs with related functions, working together.
- c. similar cells with different functions.

3. These are all multicellular living things:

- a.** animals, plants and fungi with mushrooms.
- b. animals, plants and yeast.
- c. animals, plants and bacteria.

4. Protoctists consist of...

- a. protozoa and bacteria.
- b. viruses and bacteria.
- c.** protozoa and algae.

SCORE 1 POINT FOR EACH CORRECT ANSWER!

How did you score?

Answer key: 1. b 2. a 3. a 4. c



How is your progress? Tick. O. A.

	Yes	Nearly there	Not yet
I can distinguish between animal cells and plant cells.			
I can describe the levels of organisation of cells.			
I can name some specialised cells in the human body.			
I can classify organisms into the five kingdoms.			
I understand why biodiversity is important to humans.			
I do my best in my notebook.			

MY SCIENCE BOX M. A. My favourite piece of work is my own yogurt.

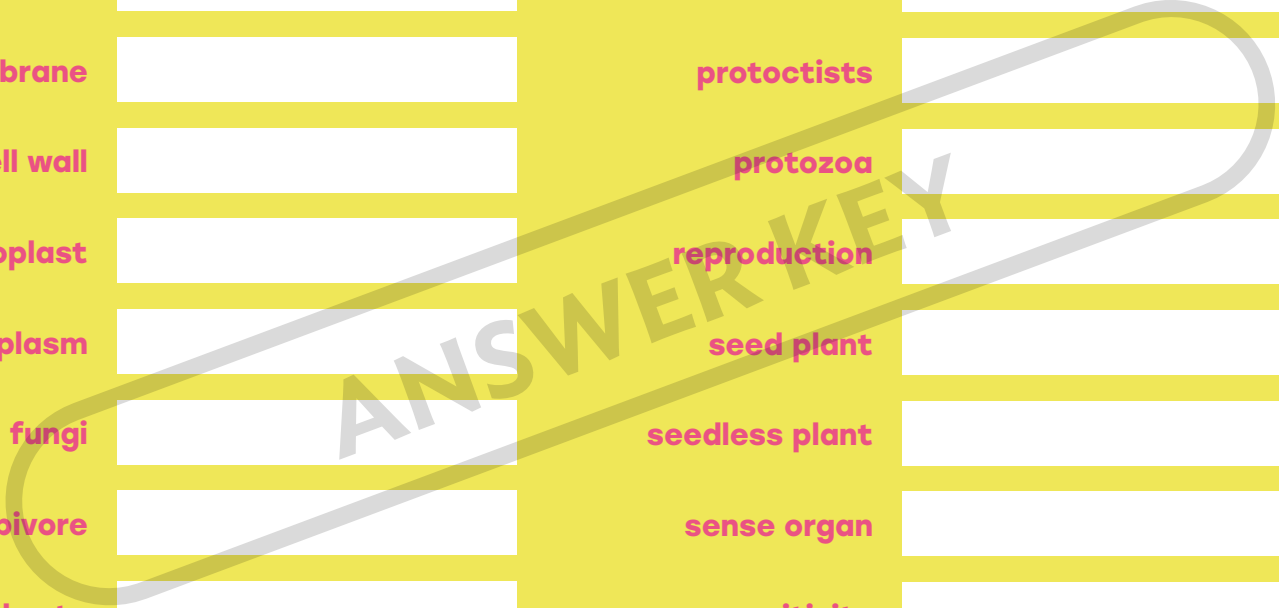
MY KEY WORDS

MY LANGUAGE

MY LANGUAGE

algae	
bacteria	
biodiversity	
carnivore	
cell	
cell membrane	
cell wall	
chloroplast	
cytoplasm	
fungi	
herbivore	
invertebrate	
life process	
mould	
multicellular	
mushroom	
nucleus	
nutrition	
omnivore	

organ	
organelle	
organism	
oviparous	
photosynthesis	
protocists	
protozoa	
reproduction	
seed plant	
seedless plant	
sense organ	
sensitivity	
system	
tissue	
unicellular	
vertebrate	
virus	
viviparous	
yeast	



ANNEX: AUDIO TRANSCRIPTS

Page 5, activity 1

All living things carry out three basic life processes: nutrition, reproduction and sensitivity.

- Nutrition is the process by which living things get energy and raw materials from food.
- Reproduction is the process by which living things produce new living things similar to themselves.
- Sensitivity is the process by which living things detect and respond to changes in the environment.

Page 6, activity 4

Plants make their own food.

This process is called photosynthesis.

To do this, they need sunlight, carbon dioxide, water and mineral salts.

During photosynthesis, plants release oxygen.

Page 7, activity 7

Plants reproduce in different ways.

In most plants, such as the orange tree, sexual reproduction takes place in the flowers. Pollen grains have to be transferred from one flower to another. Then flowers transform into fruits. These fruits have seeds that fall to the ground. The seeds germinate and new plants grow.

Other plants use parts of themselves to produce an identical version. In asexual reproduction, only one plant is involved. There are different types of asexual reproduction in plants.

For example, strawberries have growing stems that grow horizontally above the ground. New roots and stems grow along the horizontal stem and form new plants.