


CAMBRIDGE



Cambridge

Natural Science

3

Pupil's Book

Experience
Better
Learning

WELCOME TO CAMBRIDGE NATURAL SCIENCE

Welcome to the amazing world of natural science. In this book, you will:



make a mural



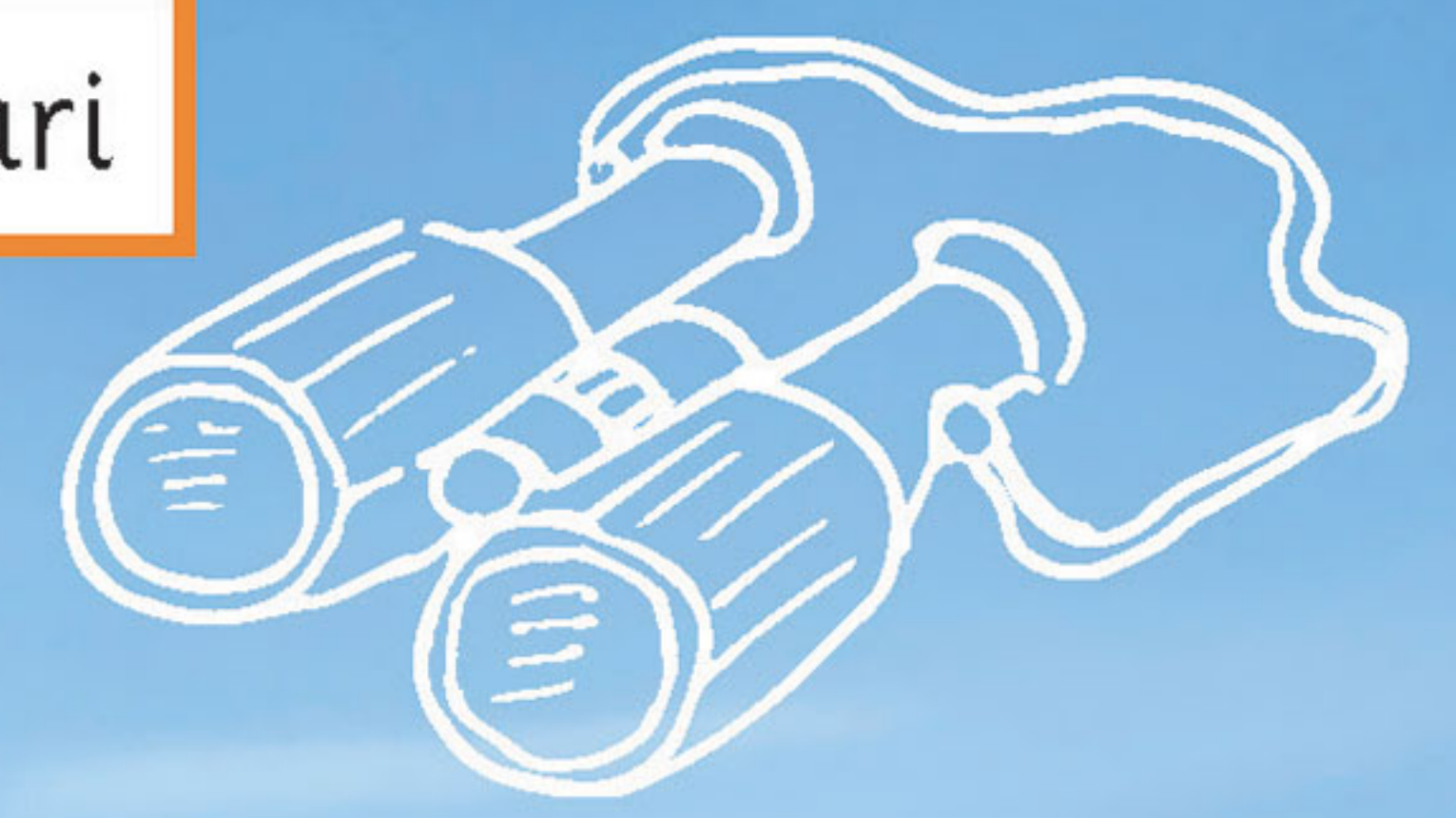
help save
the planet



invent a machine



go on safari



investigate plants



perform a rap

You will also find out:

- how fast your heart beats
- which vertebrates have two lives
- how to tell how old a tree is
- how to find gold
- how to make a car.

1

WHY DO BABIES HAVE MORE BONES THAN ADULTS?

Look and see...



Name the senses
in the photos.



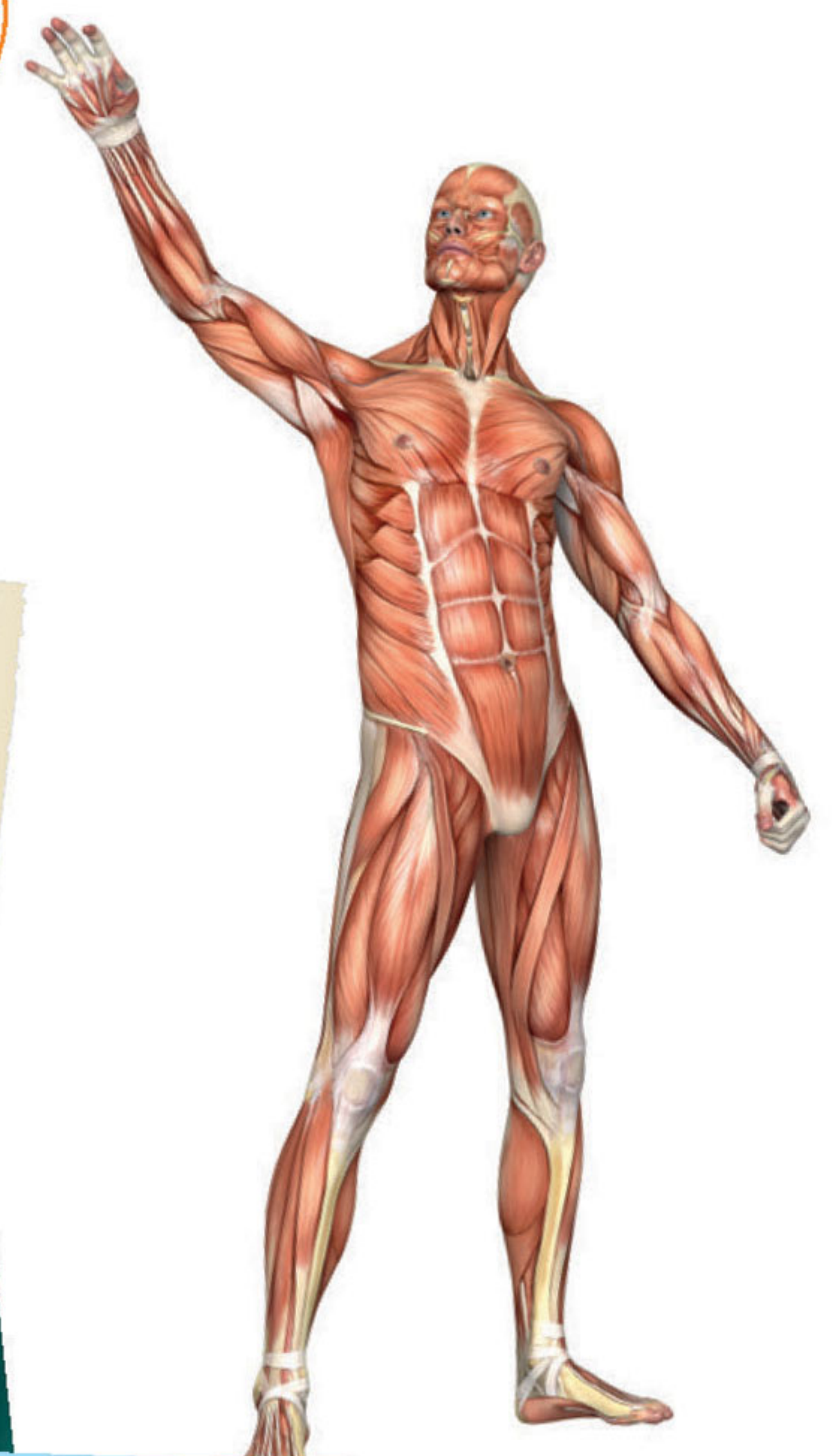
Can you name
any bones on
the skeleton?



Song
Five senses



What do joints do?



What do muscles do?

DOCUMENTARY

Helping the senses

Investigate

In this unit, you will make a mural about a season and the five senses.
To do this, you will:

- choose a season and think about what it reminds you of.
- learn about the five senses.
- think about how your senses help you enjoy the seasons.

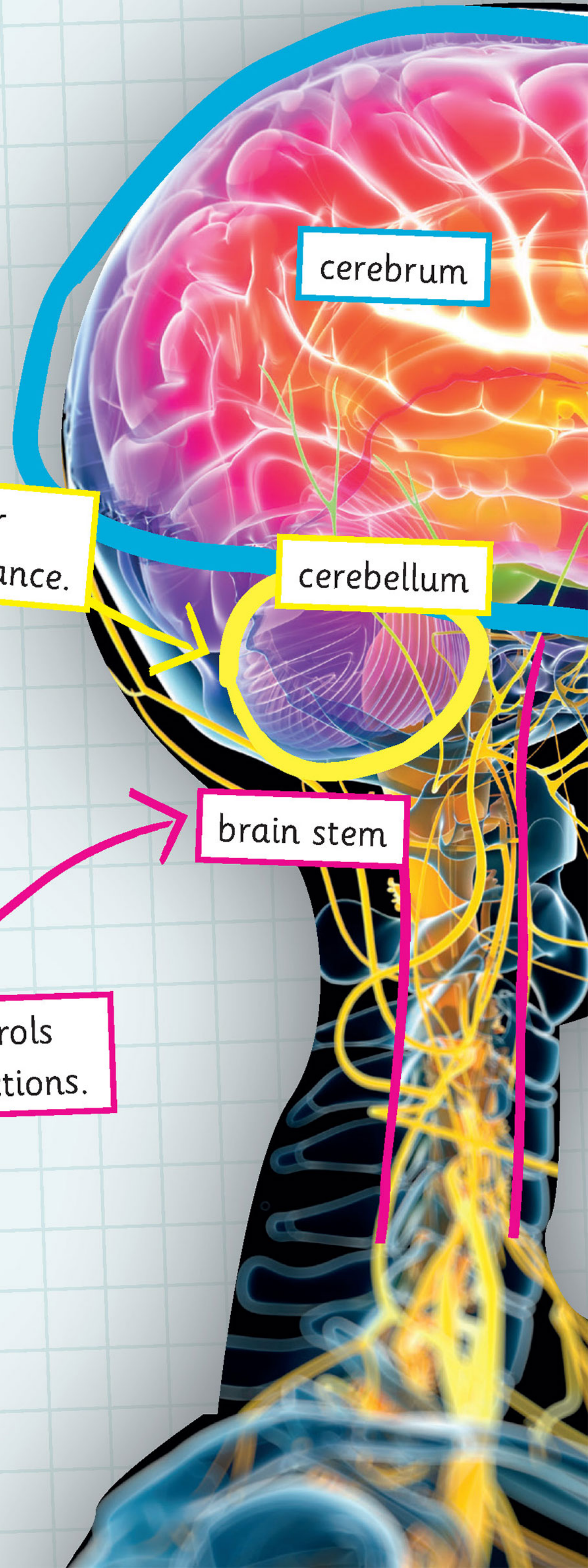
HOW DOES YOUR BRAIN WORK?

Body systems are made up of organs¹. The **brain** is the organ which controls everything we do. It is the control centre of the **nervous system**.

By the end of this lesson, you will know which part of the brain stops you from falling over.



This part controls our coordination and balance.

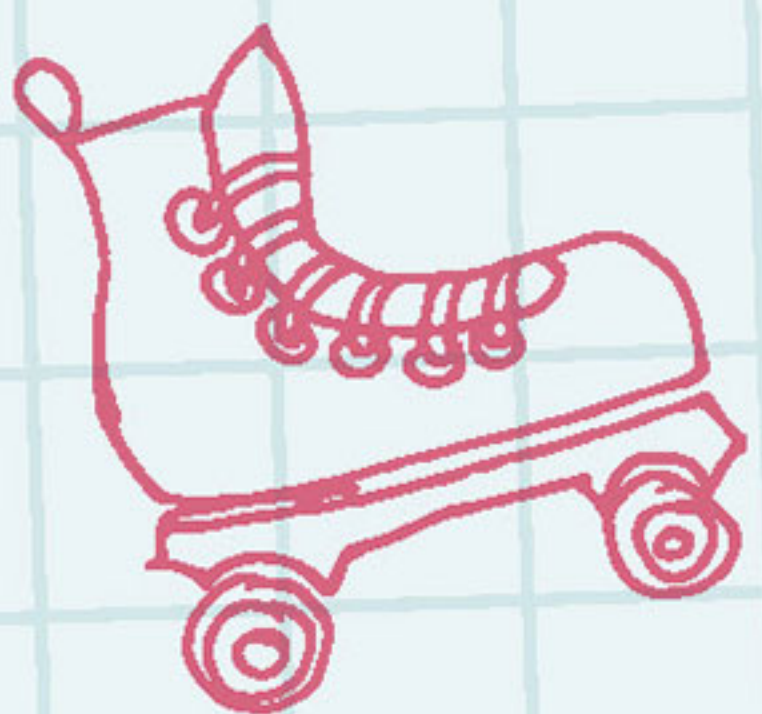
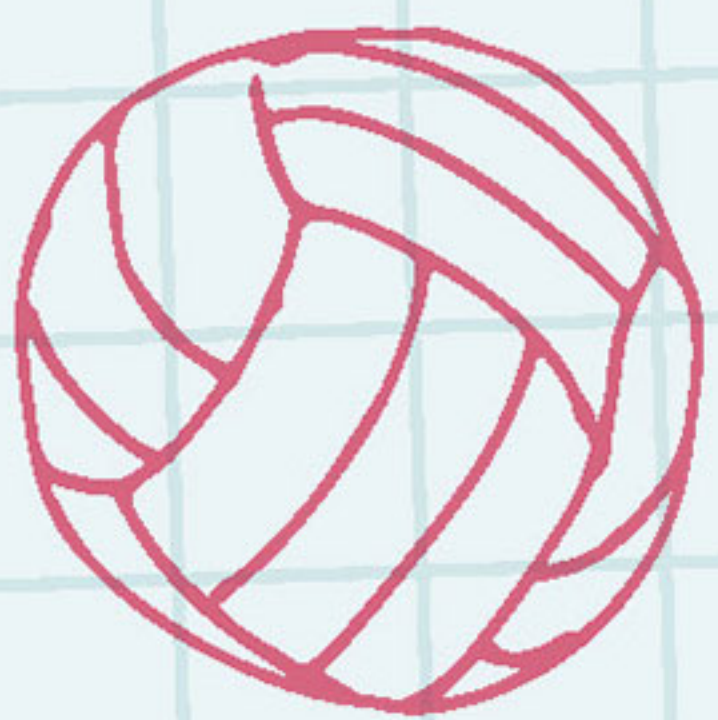


cerebrum

cerebellum

brain stem

This part controls involuntary actions.

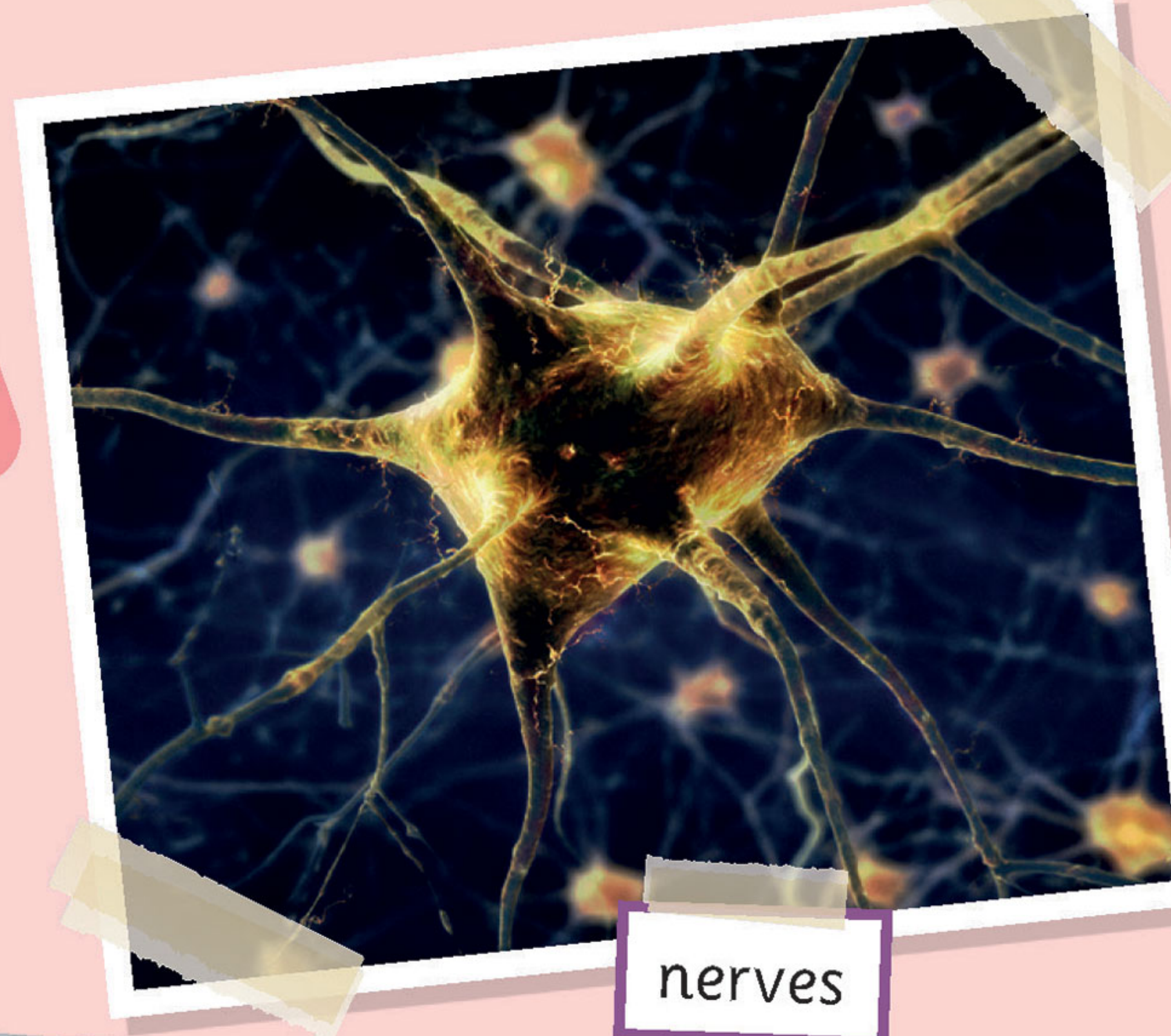


Do you remember what the sense organs are?



Our sense organs send information to our brain. This information travels to our brain through the **nerves**.

The brain then sends information back, through the nerves, to different parts of the body.



This part controls voluntary actions.



Which part of the brain helps us to dance?



Investigate

STAGE 1

- Choose one of the four seasons.
- Quickly write down five things it reminds you of.
- Compare your list with a partner.

I've chosen ... It reminds me of ...

organ: a part of the body that does an important job in a body system

WHY DO YOU HAVE A SKELETON?

The **locomotor system** allows us to move. It has three main parts.

By the end of this lesson, you will know what the parts of the locomotor system are.

Joints are where our bones connect to each other.

Muscles are soft and elastic. They help us move.

Can you find the skull, ribs and spinal column in the skeleton?

Bones are hard and rigid. They form our **skeleton**, which gives our body shape.

Adults have 206 bones in their body. Babies have about 300 bones when they are born. Some of these bones later join together and become one.



Muscles work by **contracting** and **expanding**. Some muscles are *voluntary* – they only work when our brain tells them to. Other muscles are *involuntary* and they work automatically – like the heart.

Find the skeleton hidden in the unit.

WHY DO YOU HAVE EARWAX?

Our senses allow us to **interact** with the world around us. Our **sense of hearing** allows us to distinguish between different sounds.

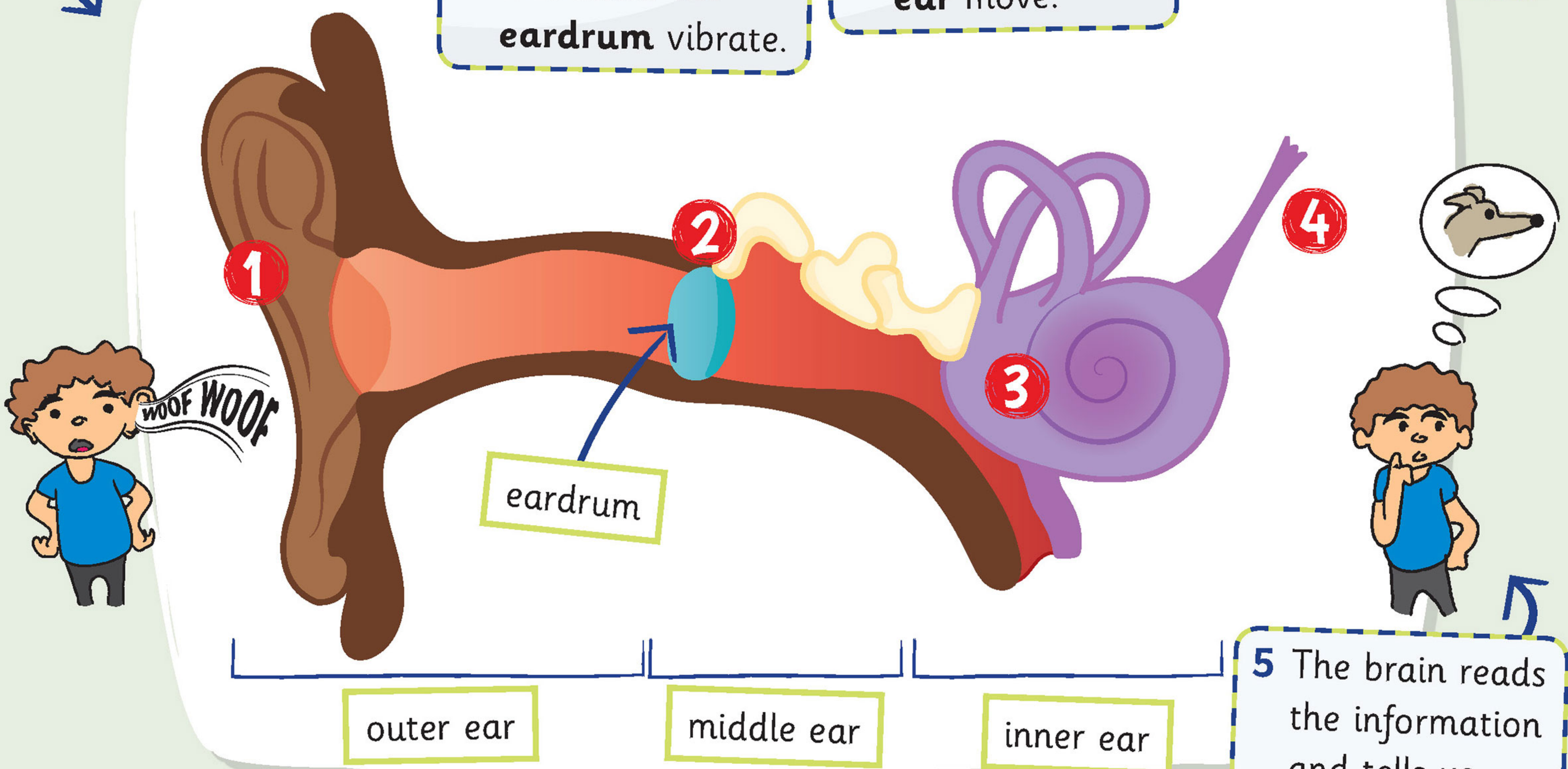
By the end of this lesson, you will know how we can look after our hearing.

1 Sound waves enter the **outer ear**.

2 They continue to the **middle ear** and make the **eardrum** vibrate.

3 These vibrations make the liquid in the **inner ear** move.

4 This movement sends information to the **brain**.



5 The brain reads the information and tells us what we are listening to.



Listen. What sounds can you hear?



STAGE 2

- What sounds can you hear during your season?
- Did you mention any of these sounds in Stage 1?
- Print out pictures of the things you can hear and write sentences about them.

Look after your ears.



Our ears produce a sticky substance called earwax. Earwax protects our ears from dirt and infection.