




Natural Sciences
Lisa Davis

CLIL World

Class Book Pack

with Digital Class Book
& Active Learning Kit

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What types of invertebrates are there?	How do animals adapt?	Science lab How do polar bears stay warm? ▶ Watch.	What do animals do? ▶ Watch.	Review & Reflect What have you learned about animals?
How do plants grow and reproduce? ▶ Watch.	Science lab How do leaves breathe? ▶ Watch.	How do plants interact with and adapt to their environment?		Review & Reflect What have you learned about plants?
How do my circulatory and excretory systems work?	How does my nervous and locomotor system work?	Science lab Do taller people have longer arm and leg bones? ▶ Watch.	How do our reproductive systems work?	Review & Reflect What have you learned about nutrition, interaction and reproduction?
How can I keep my bones and muscles healthy?	STEAM Challenge My health journal	What healthy habits help our bodies?	How are you feeling?	Review & Reflect What have you learned about healthy habits?
How can matter change state? ▶ Watch. Culture Jamila Bargach	What changes of matter are there?	Science lab Which types of matter melt the fastest? ▶ Watch.	What instruments can we use to measure?	Review & Reflect What have you learned about matter?
How can I stay safe when I use the Internet?	What is coding? ▶ Watch.			Review & Reflect What have you learned about digital devices?

- Language learning lab in every unit
- WebQuest in every unit

▶ Watch. unit videos, content videos and experiment videos

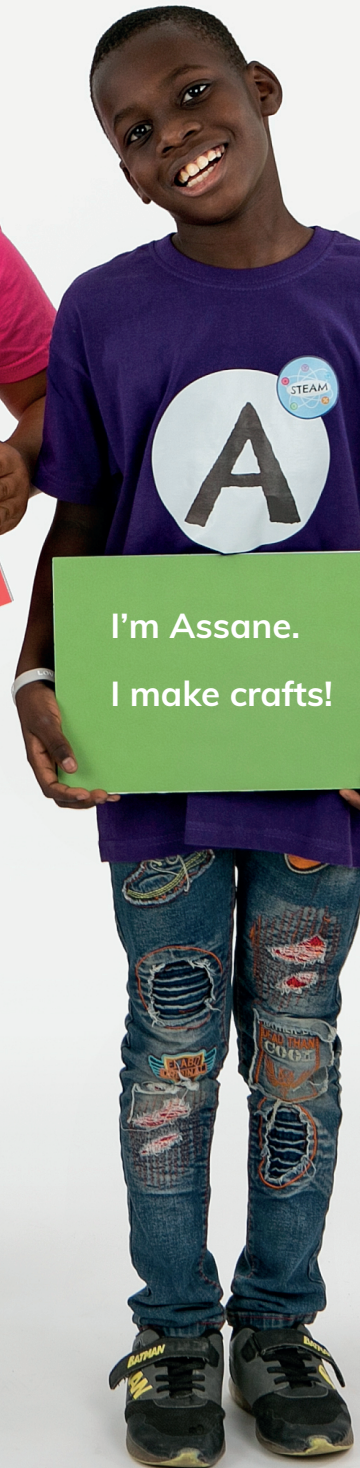
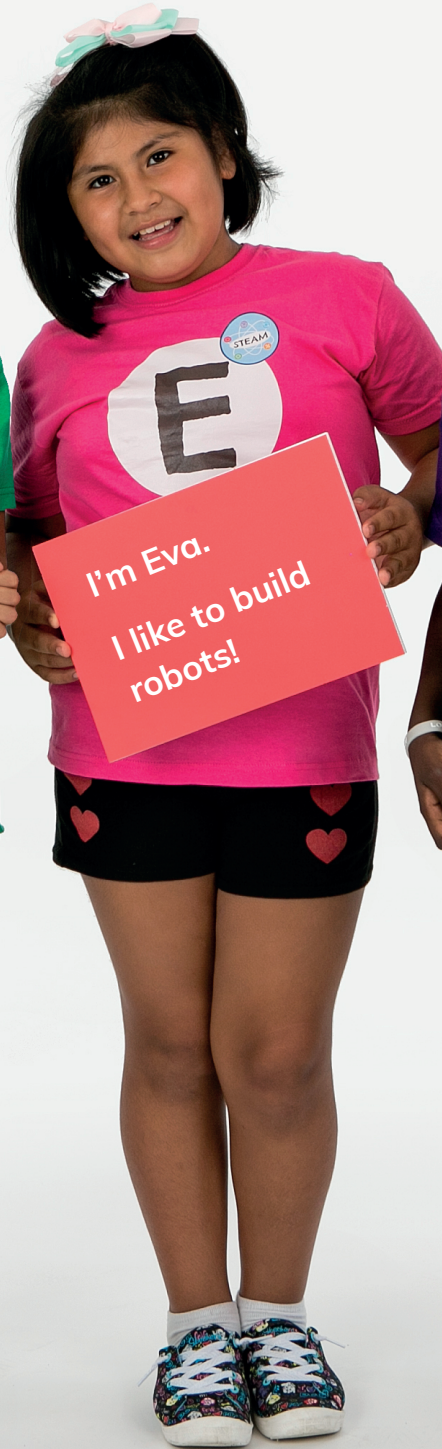
Key competences

Linguistic communication Science, Technology, Engineering and Mathematical (STEM) Digital

Personal, social and learning to learn Entrepreneurship Citizenship Cultural awareness and expression

Meet the STEAM Team!

Science
Technology
Engineering
Arts and
Mathematics



Do STEAM challenges.

Challenge Make a symmetrical butterfly

Can you make a symmetrical animal?

Before you start

1 Look at the two sides of these animals. Are they the same?

Almost all animals are symmetrical. This means their left and right sides are the same.

You need...

- a paintbrush
- card
- paints
- pencil
- scissors

Planning

- 1 Fold the card in half. Draw an outline of half a butterfly.
- 2 Cut out your butterfly.
- 3 Use the paintbrush. Put some paint on one side of your butterfly.
- 4 Fold and press.
- 5 Open carefully. You have got a beautiful butterfly!
- 6 Display your butterflies around the class.
- 7 Look at your classmates' butterflies. Are they symmetrical?

Ask important questions.

Project Learning situation 1

Protect the pollinators

Animals need plants to survive but some plants also need animals to help them reproduce. Animals that spread pollen from one flower to another are called pollinators. Some pollinators are endangered. This means they might become extinct unless we protect them.

How can we protect pollinators?

bee butterfly fruit bat hummingbird

Many fruits and vegetables need pollinators to reproduce.

Many flowers need pollinators to reproduce.

Language learning lab

Learn to describe animals with a classmate.

It's got ... / It hasn't got ...

a tail	wings	scales
gills	feathers	fur

It's a bird / a mammal / an amphibian / a fish / a reptile.

- Choose an animal. Write three sentences.
- Play the guessing game!
- Ask questions for more information: Has it got ...? Yes, it has. / No, it hasn't.

3 Investigate using the Internet and answer the question.

Whales live in the water, but they aren't fish. Why not?

Listen and say the Vertebrate chant. Guess the missing words. 003

CULTURE

Jane Goodall is a British scientist. She studied chimpanzees in Africa for more than 50 years. What characteristic do chimpanzees have?

Teach the vertebrate chant at home.

Solve STEAM activities.

Learn together!

Some animals, such as mammals, are viviparous. They give birth to live babies.

Birds, amphibians and most fish and reptiles are oviparous. Their babies are born from eggs. Most invertebrates are oviparous.

4 Work in pairs. Answer the questions.

- Find out the names of these animals.
- Which of these animals are oviparous?
- Which of these animals have lungs?

Interaction

All animals interact with their environment.

5 Look at the pictures and answer the questions.

- Some animals fight with other animals. Why are the tigers fighting?
- Sometimes animals help other animals. We call this **symbiosis**. How are the birds helping the deer? Why do the birds do this?

At home Find a carnivore, a herbivore and an omnivore from your environment.



Unit 1 Animals

1 Watch. What is your favourite animal?

2 Play the game. Use a coin.

heads = one space tails = two spaces

Questions (= one point each)

- What is it? It's a ... It lives ...
- Does it live on land or in water? It lives ...
- What does it eat? It eats ...
- Does it lay eggs? Yes, it does. / No, it doesn't.
- What kind of animal is it? (mammal, reptile ...) It's a ...

Let's learn about ...

- Different animals
- How animals adapt
- What animals do

3 Say true or false. Copy the sentences. Correct the mistakes.

- Living things grow, reproduce and die.
- Cats are reptiles.
- Fish have scales.
- Spiders are vertebrates.
- Birds lay eggs.

4 Look at the picture. Is this animal a vertebrate or an invertebrate?

5 Find the animal parts.

Be mindful

Be a cat! Listen and do the pose.

Wellbeing activities provide opportunities to refocus and centre students' attention with both mental and physical tasks.

Key competence activities: a combination of knowledge, skills and attitudes.

Fun facts about the world

Targeted language support to facilitate comprehension.

What types of invertebrates are there?

97% of all animals are invertebrates. They don't have a backbone.

There are many different types of invertebrates. Let's look at four groups:

Arthropods are the biggest group of invertebrates. They live on land or in water. They have **antennae** and legs with joints. They have an **exoskeleton**. It protects their body.

1 Use a magnifying glass and look at the spider and the beetle. How many legs have they got?

Worms have long, soft bodies. They haven't got legs. They live on land and in water. Some worms have round bodies and some worms have flat bodies.

Echinoderms live in the ocean. They have **spines**. Some use their very small feet to move on the ocean floor.

Molluscs have soft bodies. Many molluscs have a **shell** to protect their bodies. Many live in the sea. Some, such as snails, live on land.

2 Use a magnifying glass and look at the molluscs. Which ones have a shell?

3 Listen and point. 004

An ant is an **insect**. Insects are arthropods with three main body sections: **head**, **thorax** and **abdomen**.

4 What type of invertebrate is it? Tell a classmate.

- It hasn't got legs. It doesn't live in water.
- It's got wings and an exoskeleton. It's got six legs.
- It lives in the ocean. It's got a shell. It has got a soft body. It hasn't got feet.
- It doesn't live on land. It has spines. It hasn't got an exoskeleton.

5 Draw these animals in your notebook. Then write the correct descriptions in activity 4 under each drawing.

6 Draw a picture of an invertebrate. Label it. Is this animal common in your region? Write two facts about it.

At home Look for invertebrates at the supermarket.

Language learning lab

Learn to describe animals with a classmate.

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- Choose an animal. Write three sentences.
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The Vertebrate Chant

A is for amphibians. They can't be ...

B is for birds. They use ... to fly.

F is for fish. They swim with their ...

R is for reptiles with dry, scaly ...

M is for mammals. They're covered in ...

Which of the vertebrates do you prefer?

CULTURE

Jane Goodall is a British scientist. She studied chimpanzees in Africa for more than 50 years. What characteristic do chimpanzees have?

At home Teach the vertebrate chant at home.

Learn about art, history and how people live around the world.

Science lab Which types of matter melt the fastest?

Hypothesis
Rank these materials in order of how fast you think they melt. Complete the sentences in your notebook.

chocolate butter cheese

a. We think the _____ melts the fastest.
b. We think the _____ melts the slowest.

Materials

- a small piece of butter
- a small piece of cheese
- a small piece of chocolate

the same size

- a bowl
- three small containers

Step 1 Put each of the materials in a container.

Step 2 Put the containers carefully in the water at the same time.

Step 3 Observe the changes for 10 minutes.

Watch! Compare your results with a classmate. Fill in the worksheet.

Science experiments

Challenge Who can grow the tallest plant?

Did you know that lentils are seeds? Plant them and watch your plant grow!

Before you start
A seed is how flowering plants reproduce. They contain a miniature plant protected by a seed coat.
A nut is a dry fruit with one seed that is protected by a hard shell.

Look at the photos. Are they nuts or seeds?

You need ...

- a glass jar with a lid
- a pen
- a ruler
- a small pot
- lentils
- paper towel
- soil
- squared paper
- water

STEAM challenges

Learning situations to solve real life challenges.

Project Learning situation 1

Protect the pollinators
Animals need plants to survive but some plants also need animals to help them reproduce. Animals that spread pollen from one flower to another are called pollinators. Some pollinators are endangered. This means they might become extinct unless we protect them.

How can we protect pollinators?

bee butterfly fruit bat hummingbird

If the pollinators become extinct then the plants they pollinate might also die.

Many fruits and vegetables need pollinators to reproduce.

Many flowers need pollinators to reproduce.

1 Collaborate and research In groups, choose a pollinator. Find the information and fill in the fact file in your notebook.

- Name of pollinator: _____
- Vertebrate or invertebrate: _____
- Type of animal: _____
- Nutrition: _____
- Lives: _____
- Interesting facts: _____

2 Find photos and draw a picture of your pollinator. Label the parts.

3 Choose an activity to show what you have learned. Include the information from your fact file.

Make a leaflet Give a presentation

4 Share Show your project to your classmates.

5 Evaluate Give your classmates constructive feedback. Answer the questions.

- Have they got all the information?
- What do you like about your classmates' projects?
I like the images.
I like the materials used.
- How can your classmates improve their projects?
Adding more images.
Using more body language.

Learn about the 17 sustainable development goals.

Digital resources to advance learning

WebQuest

Watch.

003

Further digital practice through the ...

