

**Date:** Wednesday, 22 April 2026

**Duration:** 30 minutes

**Location:** [bbc.co.uk/livelessons](https://bbc.co.uk/livelessons)

*This programme is available to view from home or school, and no sign-up is required.*

*Simply visit the website on the day and follow the instructions on the page to watch.*



## Curriculum links:

National Curriculum, England – Key Stage 2 – Science and Geography

National Curriculum, Northern Ireland – Key Stage 1 and 2 – The World Around Us

Curriculum for Excellence, Scotland – 1st and 2nd Level – Sciences

Curriculum for Wales – Progression steps 2 and 3 – Science & Technology

## Key learning objectives:

- Pupils will learn what climate change is and how carbon dioxide (CO<sub>2</sub>) warms the planet.
- Pupils will identify everyday choices that create more or less carbon emissions.
- Pupils will recognise that these choices make up a carbon footprint and that simple actions can reduce it.
- Pupils will communicate ideas for reducing carbon emissions through design and creative work.

## Setup:

This Live Lesson can be watched on Wednesday 22 April 2026 from 09:00 on the [Live Lessons website](https://bbc.co.uk/livelessons) and at 11:00 on the CBBC channel. It will remain online and on BBC iPlayer to be used as a teaching resource whenever you need it. We will be running a live commentary page during the broadcast for teachers, parents and carers to share contributions from children watching at home and at school.

## New resources for 2025/2026

- **Mission Pack:** A collection of challenges children can do during each lesson. The pack can be printed easily and folded into a booklet format using two sheets of A4 paper. Digital versions of the pack are also provided, or children can use their own paper/notebooks.
- **Mission Poster:** During each lesson, an artist will capture the main learning points in a poster. This will be available to download from the [Live Lessons website](https://bbc.co.uk/livelessons) after the lesson for learners to use as a visual reminder.

- **Live Lessons song:** This lesson will include a catchy song from The Low-Carbon Legends, highlighting the key learning points.

### **Lesson content**

The Live Lesson encourages children to understand what climate change is, why it's happening, and learn practical ways to reduce their carbon emissions through everyday choices they can make.

Guided by Ade Adepitan, Megan McCubbin, and band manager Hacker T Dog, pupils are challenged to help plan a planet-friendly gig for Hacker's new signing, 'The Low-Carbon Legends'. Through three different planet-protecting challenges, pupils will learn how to make low-carbon choices.

### **Challenge 1: Higher or Lower**

*Key learning objectives: Understand that different actions release different amounts of carbon emissions.*

- In section 1, we learn what climate change is and children are introduced to the terms **carbon dioxide (CO<sub>2</sub>)** and **greenhouse gas**. A simple balloon experiment helps pupils understand that CO<sub>2</sub> is a gas, that we can't see or smell but is all around us.
- We then introduce and explain the concept of a 'carbon footprint' - the total amount of CO<sub>2</sub> released by a person, a country or even an event – and how scientists use this to measure the impact of our actions all around the Earth.
- For our first challenge, pupils will sort through a selection of event-planning choices, such as travel, food, drink and decoration. Working in small groups, they will discuss whether each action releases more or less carbon emission. This task encourages discussion, comparison and reasoning, while reinforcing the idea that every action has a carbon cost.

### **Challenge 2: Grow a Lyric**

*Key learning objectives: Practice using climate change vocabulary.*

- In section 2 we explore the ways in which artists such as Coldplay, Massive Attack and Billie Eilish are cutting their carbon emissions on tour.
- We also look at the ways people are already making a difference and hear from urban gardener Tayshan Hayden-Smith. Tayshan cites the Grenfell Tower fire as a motivation for his community gardening project, further age-appropriate information about Grenfell is available via [Newsround here](#).
- To complete challenge 2, using a word tree, pupils select words to help complete the lyrics for The Low-Carbon Legends' song.

### **Challenge 3: Design a Flyer**

*Key learning objective: communicate ideas for reducing carbon emissions through design and creative work.*

- To complete Challenge 3, pupils will design a flyer to help promote 'The Low-Carbon Legends' planet-friendly gig. They are encouraged to include climate conscious ideas discussed during the lesson. The task helps pupils turn knowledge into action and share positive messages about protecting the planet.
- The Live Lesson ends with a celebratory musical performance that brings together the key messages of the lesson, leaving pupils with a clear sense that climate change is a shared challenge – and that simple actions can make a big difference.
- For their final challenge to be completed after the lesson, pupils are encouraged to take all of the learning points from challenges 1-3 and explore them further by writing their own lyrics about the planet-friendly choices they could make every day.

### **Mission Pack**

Download the Mission Pack in preparation for the Live Lesson. There are three versions available. Choose the option which best suits your needs.

- **[Digital pack](#)**  
Designed to be opened and edited using a tablet. Pupils will be able to type in text boxes and use the pen tool to draw.
- **[Printable booklet](#)**  
To be printed double-sided on 2 sheets of A4 paper. Fold in half to create an A5 booklet. Pages are numbered and should run from 1 to 8 when one sheet is placed inside the other. Designed to support black-and-white printing.
- **[Printable A4 sheets](#)**  
Best option if no double-sided printing capacity. Designed to support black-and-white printing.

Note, pupils are still able to participate without access to the Mission Packs. All instructions will be on screen. We recommend that pupils have a notebook and pen or pencil to hand.

### **Pre-lesson activity: Balloon experiment**

This simple experiment creates a very small amount of CO<sub>2</sub> using a chemical reaction, allowing your class to see evidence of an invisible gas.

Pupils will observe what happens when baking soda and vinegar react inside a bottle, causing a balloon to inflate as CO<sub>2</sub> gas is released. Teachers can guide discussion by asking pupils to predict what might happen and describe what they notice during the reaction.

#### **Learning focus:**

- Understand that carbon dioxide is a gas we cannot see but can observe through its effects
- Recognise that gases can take up space and exert pressure
- Begin to understand why CO<sub>2</sub> is important when learning about climate change

#### **What you'll need:**

- A small 500ml empty plastic bottle
- Sodium bicarbonate
- 100ml of white vinegar
- Two funnels or rolled up pieces of paper
- A balloon
- And a tablespoon for measuring

#### **Instructions:**

1. Pour 100ml of vinegar into the 500ml bottle using one of the funnels.
2. Using the other funnel, tip a tablespoon of sodium bicarbonate into the balloon. It helps if you've pre-stretched the balloon.
3. Carefully place the balloon over the neck of the bottle and allow it to droop over to the side, making sure none of the baking soda falls into the bottle just yet.
4. Lift the balloon carefully and allow the bicarbonate of soda to mix with the vinegar. Then watch as the balloon inflates with CO<sub>2</sub>!

#### **Extension ideas:**

Learners might then take this activity further by exploring the following questions:

- How can we measure the amount of gas we have made?
- Does the amount of bicarbonate of soda affect how much CO<sub>2</sub> is produced?
- Does the amount of vinegar affect how much CO<sub>2</sub> is produced?

#### **Linking CO<sub>2</sub> to Climate Change**

Explain to pupils that carbon dioxide (CO<sub>2</sub>) is a type of gas called a greenhouse gas. Some CO<sub>2</sub> occurs naturally, but human activities such as burning fossil fuels and cutting down trees have increased the amount in the atmosphere, contributing to climate change.

## **Post-lesson activities:**

### **Carbon Calculator**

A carbon calculator is a tool that estimates how much carbon dioxide (CO<sub>2</sub>) is produced by different activities, such as travelling, using energy, eating certain foods or buying products. It helps people understand their carbon footprint by showing how everyday choices add to the total amount of CO<sub>2</sub> released into the atmosphere, making it easier to spot where changes can reduce emissions.

Pupils can use the [Count Your Carbon](#) calculator - the nation's first free, full scope carbon emissions calculator built for – and in collaboration with – nurseries, schools, and colleges.

*Please note: The BBC is not responsible for the contents of any other sites listed.*

### **Recycled Wristband**

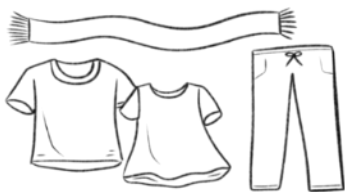
Students can make their own recycled wristband from old clothes/material, to wear themselves or share with their friends.

You will need:

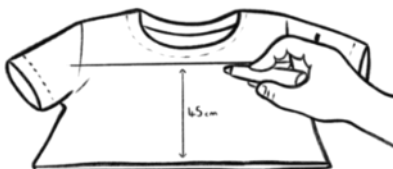
- Old unwearable clothes or rags
- Scissors
- Ruler or measuring tape
- Pen

### **Instructions:**

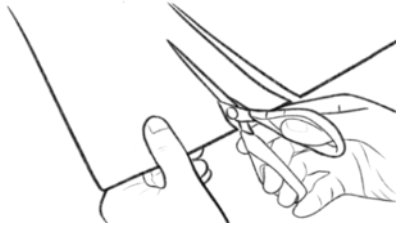
1. Ask a grown-up for any old unwearable clothes or rags.



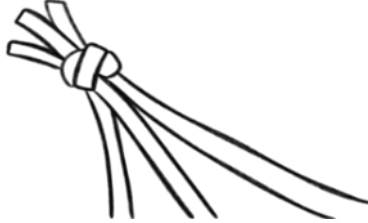
2. Using the ruler and pen, measure out and mark a line at the length that you want the strips to be. You'll need around 45cm for adult wristbands, or 35cm for children.



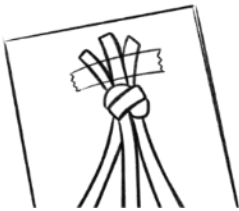
3. Carefully cut strips that are roughly 1-2cm wide. You will need 3 strips per wristband.



4. Line up the three strips evenly and tie a knot at one end.



5. Secure the knot by taping it to something or placing it under a heavy object.



6. Separate the strips into left, middle and right. Cross the right strip over the middle, then cross the left strip over the middle. Repeat this braiding until you have about 10cm of fabric left.



7. Tie another knot at the other end of the wristband and cut off any excess fabric.



8. Place the wristband around the wrist, push the bottom knot through the braid to close.

