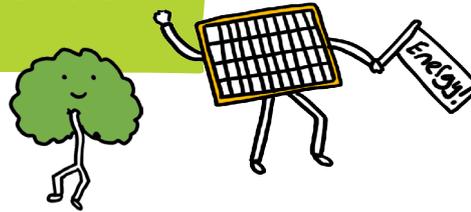


Climate Champions

Challenge Workshop Guide



Challenge outline

The aim of Little Inventors workshops is to allow students to express the far reaches of their imagination. We want to inspire students to think up and draw original, ingenious, funny, fantastical or perfectly practical invention ideas. There are no limits!

What could you invent to help us stop climate breakdown and better protect our planet? This is a question that children can answer in an open way or can respond to one of the two themes below. The challenge will be supported by an overview of the themes, real world solutions and some inspiring invention responses!

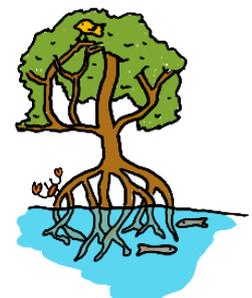
For each topic we want to encourage children to think about where they live and the local environment that is around them. Students will be able to draw and submit their own inventions to appear on icuboudd.littleinventors.org where they will be reviewed by the Little Inventors team and iCubo UDD. Their idea might be chosen as a Little Inventors team favorite, or even brought to life by one of our Magnificent Makers.

Themes

Theme 1: Protect biodiversity

Animals and plants make homes in wild habitats like deserts and forests, but they also live amongst us, in local parks, on the edges of buildings and between the cracks in the pavements. Wherever you live you can make a difference. What could you invent to bring more biodiversity to the area you live in?

- What animals and plants do you have around you? Your home where you live?
- What lives under you? Above you? Near your home? Near your school?
- How can we encourage more wildlife and plants, on land and oceans?
- How can we protect wildlife and plants on land and oceans?
- How can we bring more trees into our cities and other spaces?
- How can you attract nature into your garden/street?



Theme 2: Invent a more sustainable future

Every decision we make has an impact on the planet, from what we eat to how we travel. Can you think of traditions in your country that are kinder to the environment and help to protect it? Think up an invention that would help us to throw fewer things away and waste less, to use less energy or to travel more sustainably!

- Are there traditions in your country or local community that are kinder to the environment?
- How can we use less energy and power things without electricity?
- How to use less plastic?
- How to reduce pollutants in the atmosphere?
- Can you think of ways to travel more sustainably?
- How can we throw less things away and waste less?
- How can you use less? (Clothes, water, electricity, fossil fuels).

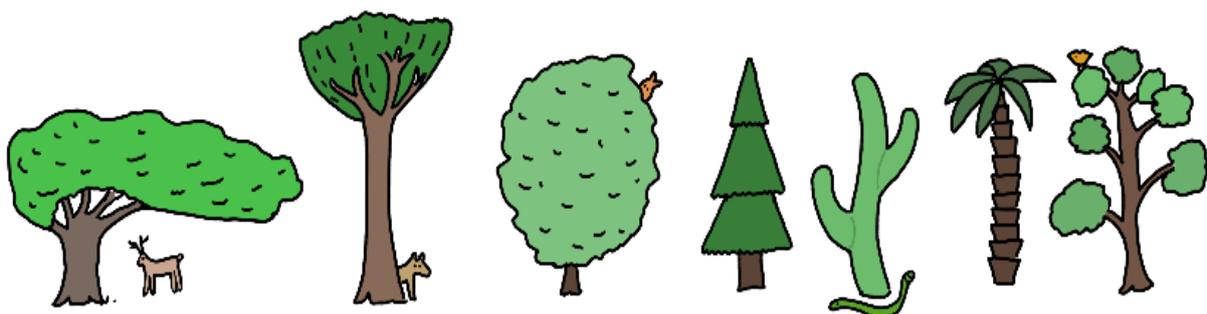


Invention: a tool for change

Both of the topics are underpinned by the theme of invention. It would be good to explore the concept of invention with your pupils to get them to think about designing something new to create a solution to a problem or issue. We'd really love to see ideas inspired by the local and not just the global, inspired by where you are.

Start by having a class discussion on inventions and life in the future, for example:

- What is an invention?
- Can you name some well-known inventions?
- Think about 2030 and how the world might have changed. What do you think will be different in everyday life?
- Inventions are used to solve problems: can you think about problems or things that could be made more interesting or fun, now and in the future?
- Can you think of things which are difficult to do now, and how they might be easier to do in the future? What about ordinary objects? Why were they invented?



Curriculum outcomes



The resources have been designed to support scaffolded learning for students aged 6 to 15 years old to stretch their imagination and creativity. Each resource includes a PowerPoint presentation, activity sheets and a resource guide for you to select or combine to suit the time you have available and the abilities of your students. This resource covers curriculum outcomes that support the learning in the following ways:



Ages 6 - 10: Living things and their habitats/science/design and technology/Personal, social and emotional development/Understanding the World/Expressive Arts and Design

Ages 11 - 15: Ecosystems/Science/Art and Design/Citizenship/Design Technology



Climate champions resource pack

The pack is comprised of:

- Dedicated microsite including challenge information and an image gallery for hosting invention ideas. Personal feedback will be given to each uploaded invention idea.
- Challenge Launch film (animation film funded by European Union) which gives a short, creative introduction to the challenge (2 mins), hosted on the microsite challenge page.
- Teacher resource guidance notes to help you navigate the resources in your classroom
- PowerPoint resources covering the challenge theme, including teacher/facilitator notes
- Four creative activities (2 for each theme), including:
 1. Mind map (theme 1)
 2. Wildlife profiler (theme 1)
 3. Trash to treasure (theme 2)
 4. What's the story? (theme 2)
- Mini challenge cards x38 - the challenge cards provide mini challenges created to help students that are finding it difficult to get started thinking up an invention idea. They can also be used to 'warm-up' students by giving them specific challenges and then asking them to come up with one of their own.
- Invention sheet - space to draw up the invention idea and add a description and labels.

A step-by step guide to using the resources



1. Start by downloading the challenge pack from icuboudd.littleinventors.org
2. Familiarise yourself with the challenge resources before the workshop/classroom activity.
3. Have the challenge launch animation and powerpoint on whiteboard or screen to begin the session.
4. Begin by playing the challenge launch animation to introduce the challenge.
5. Deliver the presentation on a screen or whiteboard, using the notes to help. The presentation is broken down into the following sections. If short on time you can choose to deliver only one challenge theme of your choice or just the introduction to climate change.

Slides 1 - 9 Introduction to Little Inventors and the challenge

Slides 10 - 17 Introduction to climate change - A general overview of climate change, why it's happening, the threats and ways to start to help

Slides 18 - 23 Theme 1, Protect biodiversity - What is biodiversity? Why is it important and how indigenous communities make a big impact

Slides 24 - 29 Theme 2, Invent a more sustainable future - Introduction to sustainability, renewable and non-renewable energy sources, transport and dealing with waste

Slides 30 - 31 Closing slides - Top tips for inventing and partners thanks

6. Printed materials per student (make sure you have plenty of black pens and colouring pens available for the workshop):

1x What's the story activity sheet

1x Mind-mapping activity sheet

1x Wildlife profiler sheet

1x Trash to treasure activity sheet

1x Invention sheet (must be completed to enter the challenge)

Use whichever activity sheets you see most appropriate to aid your lesson.

7. Mini challenge cards: these can be shared between groups. Scissors will be needed to cut them up.
8. Important! The invention drawing sheet must be completed and uploaded to the microsite (<https://icuboudd.littleinventors.org/collections/crin/upload>) to be entered into the challenge, to receive feedback and for a chance to be brought to life by a professional artist or designer.



How to upload the invention ideas and enter the challenge

Visit icuboudd.littleinventors.org, click the yellow 'Upload here' button and start to upload the ideas.

Make sure to take a photograph or scan of the invention sheet that's clear and bright otherwise the idea may be rejected.

For help on how to upload multiple inventions please email hello@littleinventors.org for support.



To learn more about Little Inventors and to discover more challenges and free teaching resources visit www.littleinventors.org. You could also get children to look at the Little Inventors video with Chief Inventor, Dominic Wilcox to understand more about what it's like to be an inventor.

