

# Climate action heroes!

It's your world!

KS1 Teacher Guide



South Tyneside Council

DOGGER BANK  
WIND FARM



# Will your imagination change the world?

Take part in the Climate Action Heroes invention challenge!

Did you know the Earth is the only planet in the whole universe with life on it (that we know of!)?

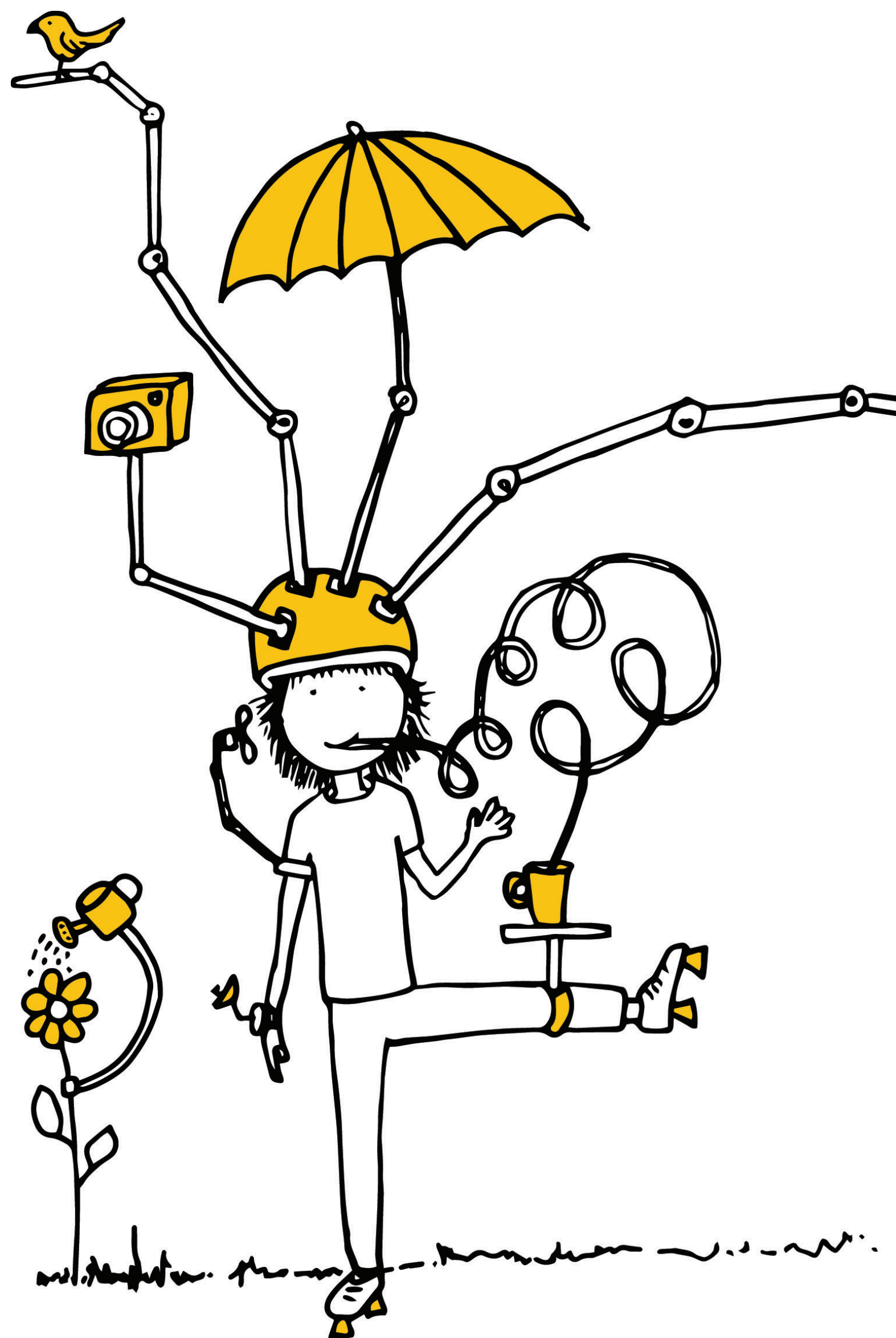
Our planet is covered in the most amazing wildlife from the teeny tiniest bug to the biggest mightiest whale. We have luscious rainforests and bustling coral reefs, mysterious jungles and vast man-made cities. But climate change means that life on Earth is changing and becoming more difficult for people and wildlife all over the world.

We all need to do our bit to make sure that everyone on the planet can live happy and healthy lives long into the future! That's where we need your invention solutions. We need to build a better future with science, invention, and innovation at the heart of it all. The more we understand about the life on our planet, the better we can learn to look after it.

That's why we've partnered with Dogger Bank Wind Farm and South Tyneside Council to bring you an invention challenge - Climate Action Heroes: It's your world!







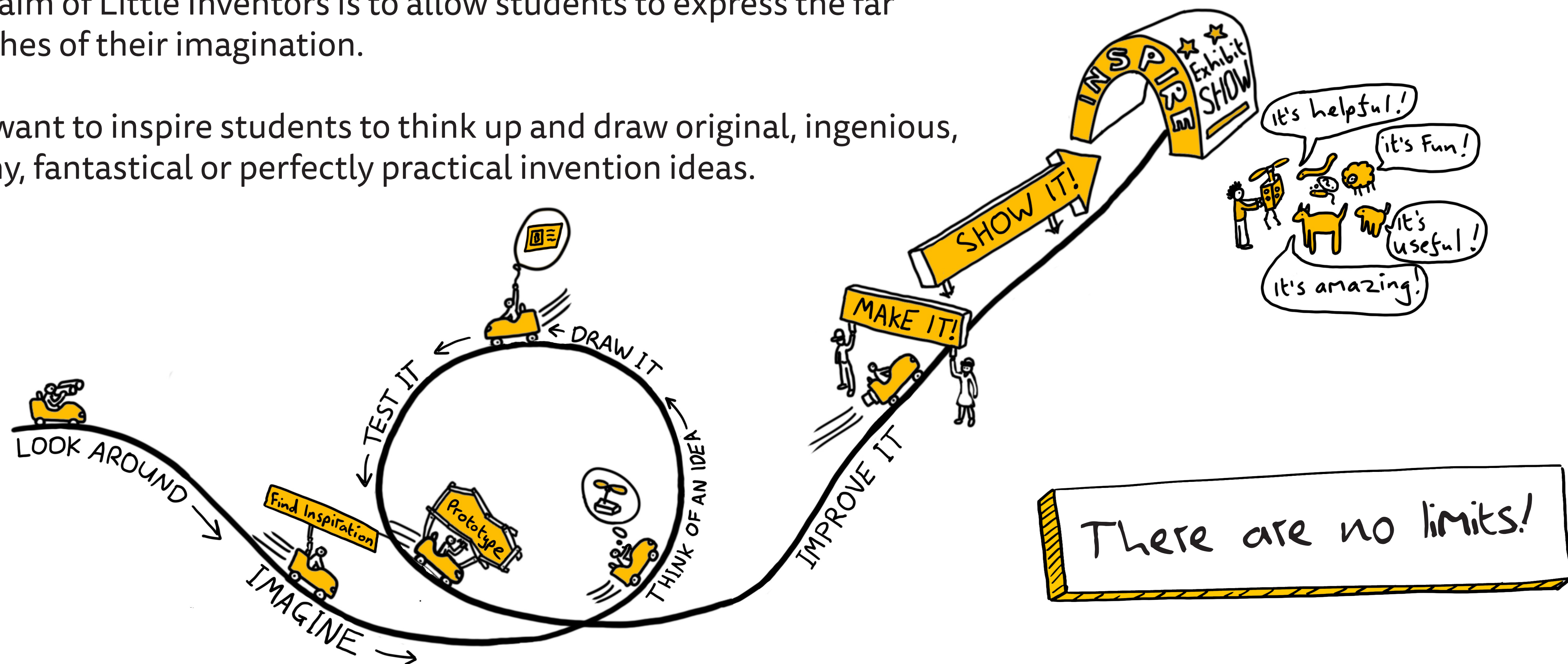
Play the challenge launch video!



# What's the aim of the project?

The aim of Little Inventors 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.

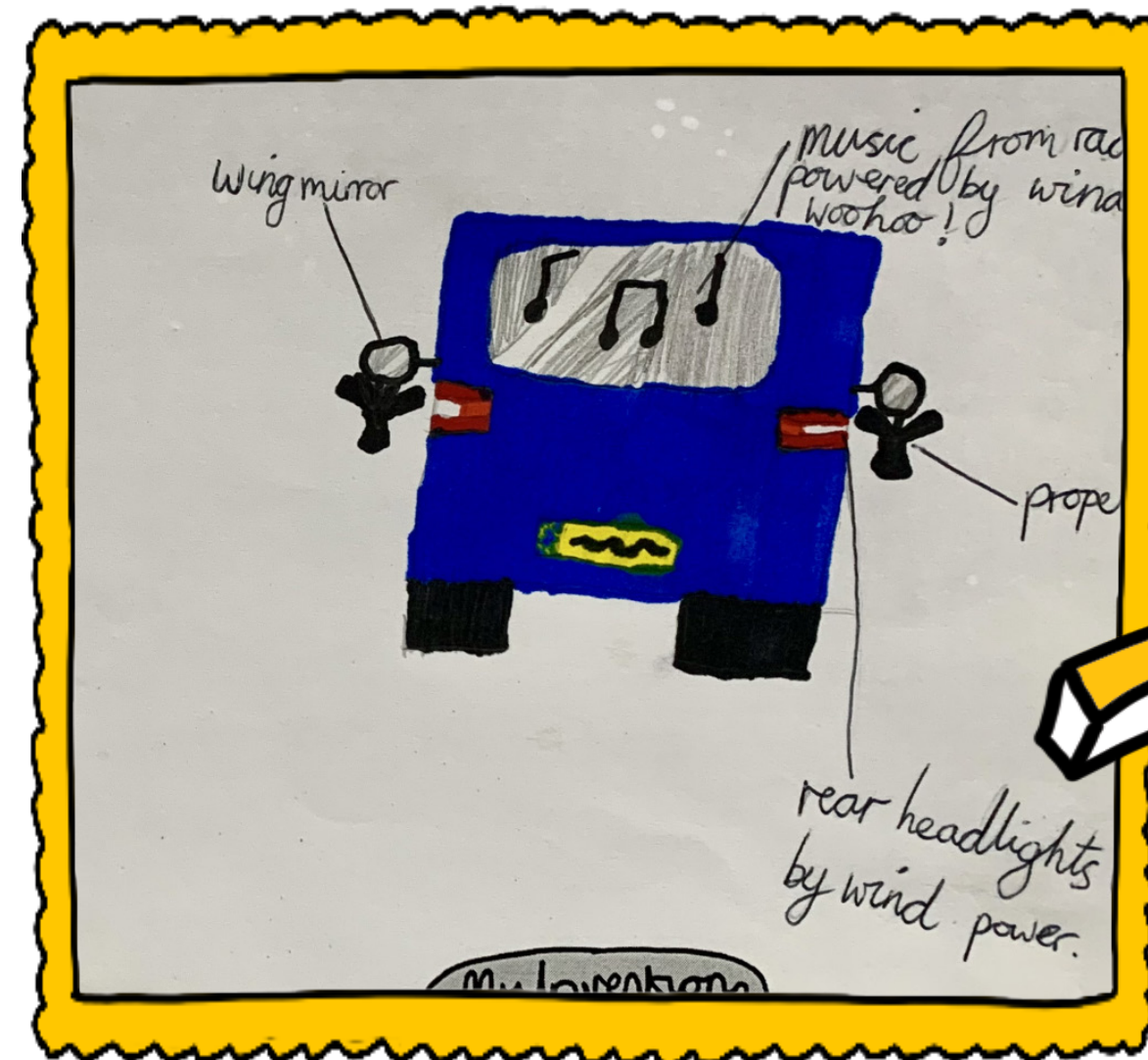




# What's in it for my students?

Students will be invited to draw and submit their own inventions to appear on the online invention gallery, where they will be reviewed by the Little Inventors team and Dogger Bank Wind Farm.

Their idea might be chosen as a Little Inventors Team Favourite, turned into an animation, or brought to life by one of our Magnificent Makers!



Wind Mirrors by Isaac, age 9

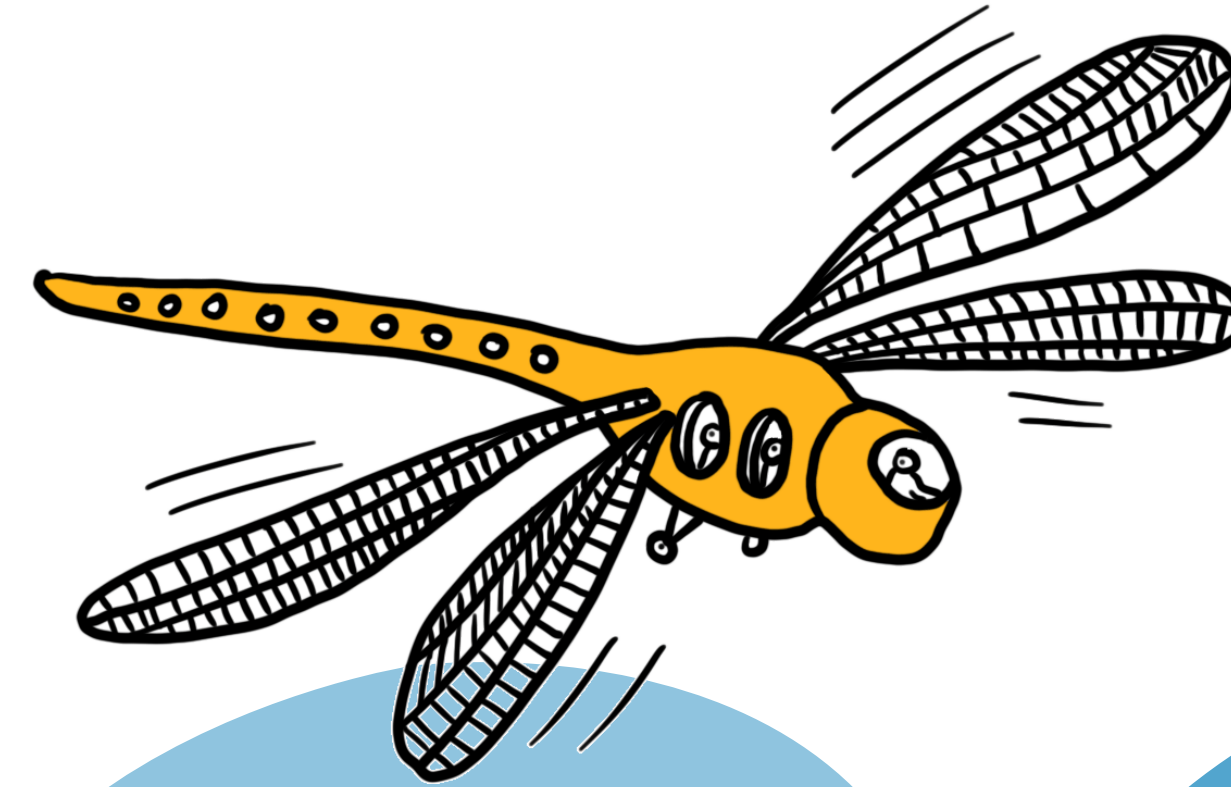


Brought to life by Ford Aerospace

In 2024 Isaac's was shortlisted for Young Innovator award at The Engineer's Collaborate to Innovate Awards!



# Key Project Dates



Challenge  
launch

5th November  
2025

Challenge  
close

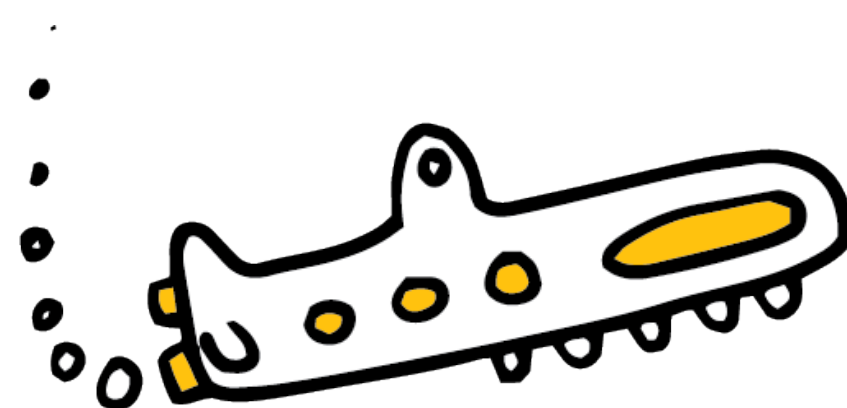
2nd April  
2026

Winner  
selection

15th April  
2026

Bringing to life  
process

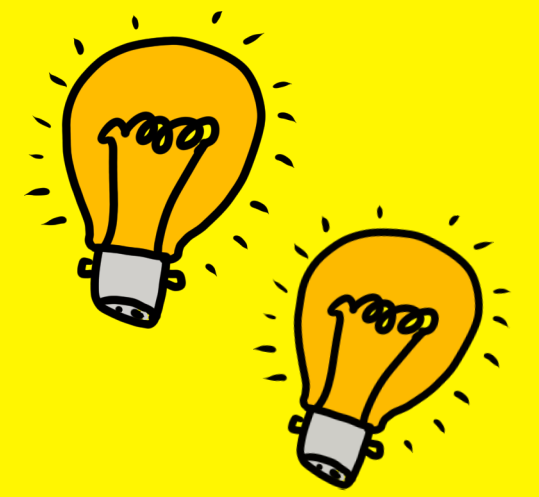
May - July  
2026







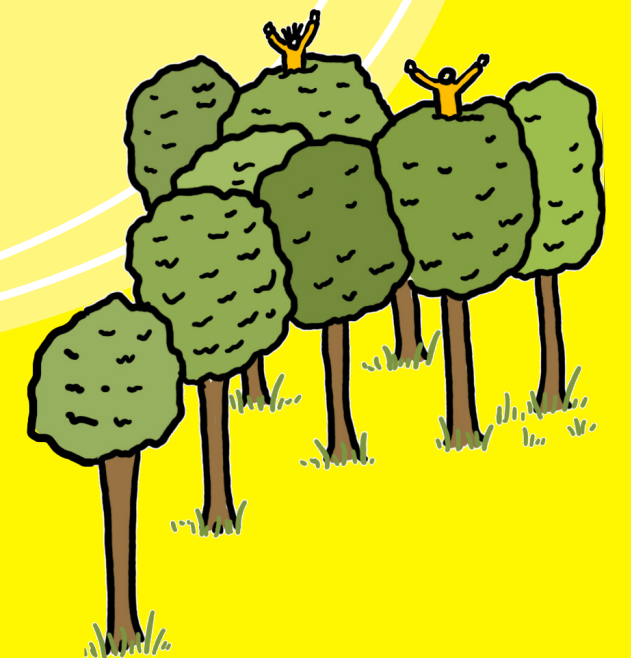
# Invention challenge



**What can you invent to help protect wildlife?**


It could be something for an animal, a plant,  
or to protect a wild place!

How about a place for birds to nest in a tall tower, or a way to help a hedgehog without a home? What about something to stop animals getting hit by cars or turtles getting tangled in ocean waste?






# Learning content

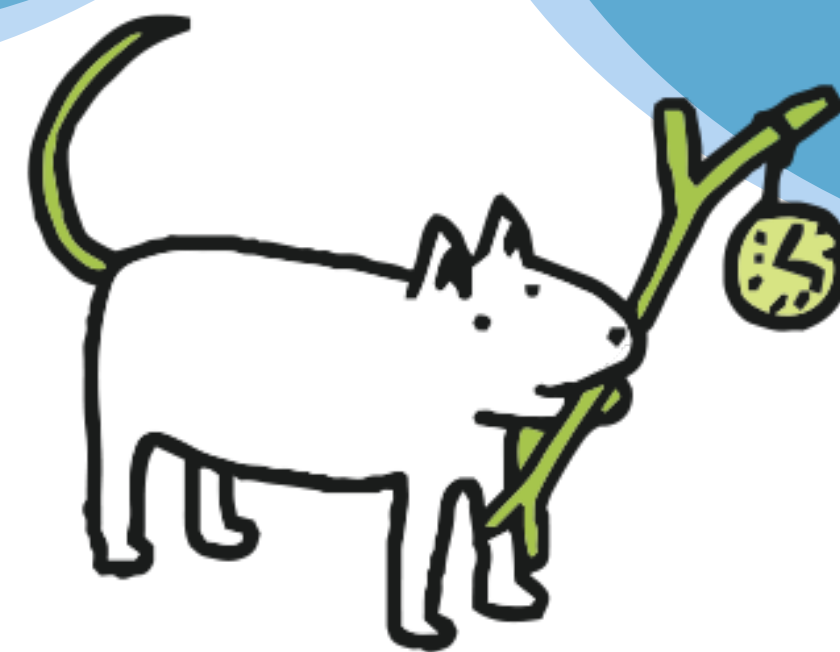


Students will explore climate themed topics through a **creative lens**, with the main focus being on **protecting biodiversity**. Using the presentations in the resource pack you will introduce them to creative thinking techniques and teach them the content they need to know to come up with their own **brilliant inventions**.

Students will get creative about how they can **invent something to protect wildlife**. The activities will allow students to **gather information** and creative ideas to develop some unique and exciting sparks of inspiration that will guide them on to designing their final invention!



The presentations are also available as **narrated videos** which can be played directly to your students to speed things up or used for yourself to revise the content.





# Resource pack checklist



Use this Resource pack checklist to make sure you have all of the core materials to hand to deliver the challenge!

All resources are available at <https://southtyneside.littleinventors.org/challenges/climate-action-heroes>

Your lessons and activities can be adapted to suit your specific learning environment and students' needs



Introduction presentation *Powerpoint* ☐

Challenge Launch Video ☐

Challenge Presentation *Powerpoint* ☐

Activated Challenge Presentation ☐

Activity Sheet: Wildlife profiler *PDF* ☐

Activity Sheet: Mind Mapping *PDF* ☐

Activity Sheet: What's the story? *PDF* ☐

Challenge Cards *PDF* ☐

Invention Drawing Sheet *PDF* ☐



# Digital teaching resources



Introduction Presentation

25 - 30 mins



Challenge Presentation

35 - 45 mins



Activated Challenge Presentation

11 mins



# Printable activities

40 - 90 mins



**Wildlife Profiler**

Use this profiler to capture information about a plant or animal that needs protecting!

What's special about me?

What dangers do I need to look out for?

How can you help me?

Draw your plant or animal here

I am \_\_\_\_\_

I live \_\_\_\_\_

I eat \_\_\_\_\_

southtyneside.littleinventors.org

Wildlife profiler

**What's the story?**

Write a story about an invention that helps take care of our planet. Who needs help, what's the problem, how did the invention help?

Think about the characters in your story, who are they and why might they need your invention?

Beginning: How does it start? Where is it set?

Middle: What is the problem that needs solving?

End: How could your invention help? What happens next?

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What's the story?

**Challenge cards**

Cut up the cards and pick one to get started.

What does this make you think about? What problem do you need to solve? What invention can you come up with?

You can also make up your own or adapt one of these!

Invent a house for humans that also has space for as many wall animals as possible	Invent something to protect coral reefs from the warming ocean
Design a house for a mouse made from things you can find on the beach	Invent a method of transport using butterflies
Invent an item of clothing that will attract bees and butterflies	Invent a device that protects trees from getting cut down

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Challenge cards

**Mind Mapping**

Use this mind map to think of ideas about how to protect habitats for wildlife

Habitats

- Forests
- Oceans
- Deserts
- Grasslands

Visit southtyneside.littleinventors.org for more

Mind mapping

Think of an idea to help protect animals or nature. No problem is too big or too small to invent for!

My wildlife protecting invention

First name \_\_\_\_\_

Age \_\_\_\_\_

School \_\_\_\_\_

Town/city \_\_\_\_\_

Tell us more!  
(who your invention is for, what it does, how it works!)

Draw your invention here!

Use a black pen, add colours and labels

MY INVENTION

Upload your idea at southtyneside.littleinventors.org to get feedback. And who knows, it could be chosen to be made real!

southtyneside.littleinventors.org

Invention drawing sheet

The Challenge cards can be shared between multiple students



# Go further!

30 - 180 mins



Extension activities for students who want to continue their great work. These activities can form many hours of additional learning and can be dipped into during classtime or at home.



Take your ideas further



Prototyping your idea



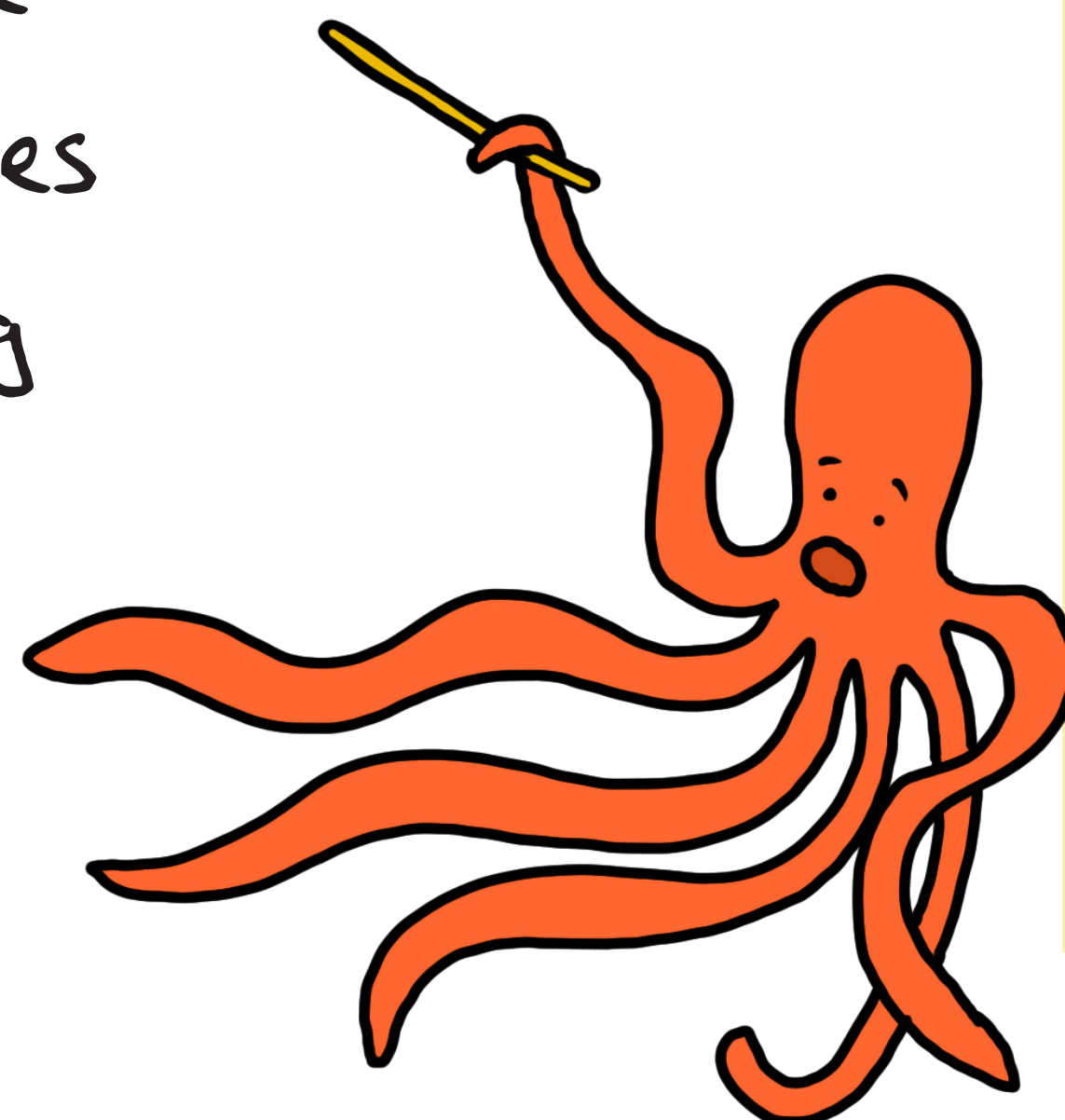
Curating your exhibition



# Tips on using the resources

The resources are designed to be worked through from top to bottom intersected with hands-on activities along the way to keep the students engaged and developing their creativity and inventing skills.

It's important to familiarise yourself with the resources before delivering anything to your class.



**In addition to the printed materials your class will need:**

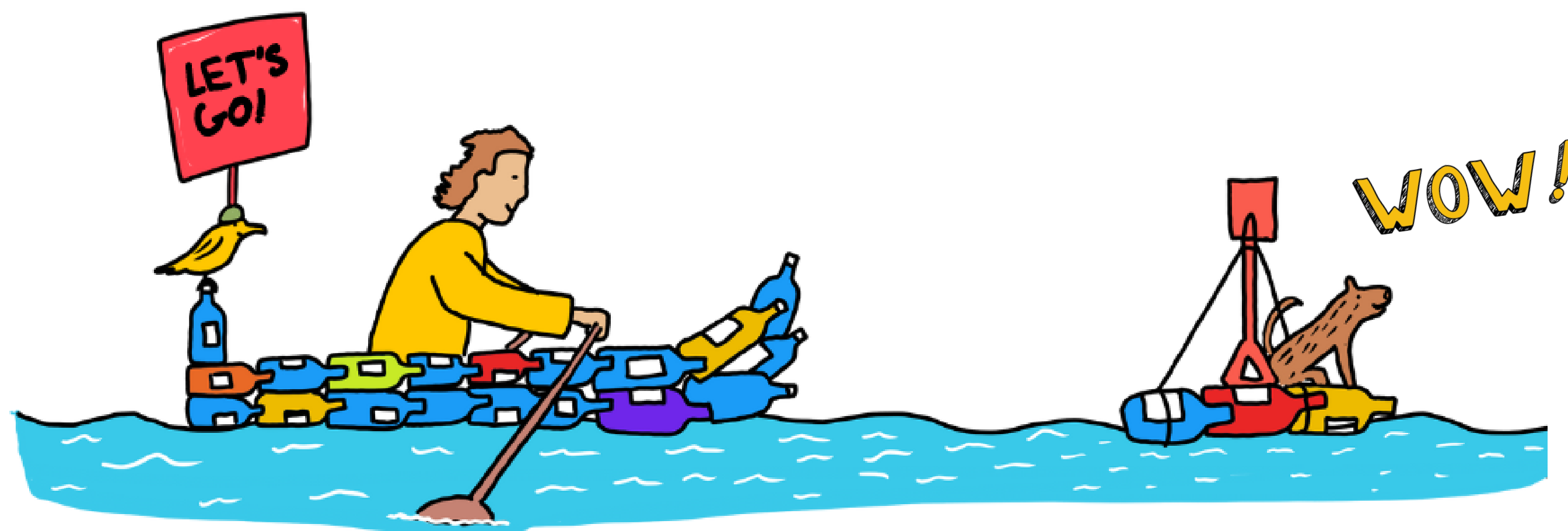
- Pens and coloured pencils
- Scissors
- Junk materials for students that prefer to think with their hands rather than sketching (e.g. cardboard boxes, plastic bottles, pipe cleaners...anything destined for trash that can be re-used to make a model)
- Additional materials for prototyping if students want to explore the extension activities



# Little Inventors

For this challenge we have made this process much faster than in previous years so we hope you can submit as many invention ideas as possible.

<https://southtyneside.littleinventors.org/challenges/climate-action-heroes/upload>



Think of an idea to help protect animals or nature. No problem is too big or too small to invent for!

Draw your invention here!

Use a black pen, add colours and labels

My wildlife protecting invention

Name it / , )

First name \_\_\_\_\_

Age \_\_\_\_\_

School \_\_\_\_\_

Town/city \_\_\_\_\_

Tell us more!  
(who your inven  
how it works!)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

Deadline

2nd April 2026

MY INVENTION!

Upload your idea at [southtyneside.littleinventors.org](https://southtyneside.littleinventors.org) to get feedback.  
And who knows, it could be chosen to be made real!

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Little  
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The best ideas submitted will be published on the website with feedback from our experts! And one idea will be brought to life by a professional maker!



# What next?

Celebrate all of the hard work completed by the whole class. You may want to explore ideas of how you can showcase all of the inventions at your school.

How about an invention exhibition?  
You could invite the school community to come and explore all of the fantastic ideas!



[Download the Classroom Exhibition Materials at southtyneside.littleinventors.org](https://southtyneside.littleinventors.org)



# We're here to help



If you have any questions or need any help  
please get in touch with Ellie or Craig at

[hello@littleinventors.org](mailto:hello@littleinventors.org)

We wish you and your  
students the best of luck  
with the challenge and  
can't wait to see the  
inventions!

