

Get started! 5-10 mins

Explain that in this workshop, children will be given a chance to come up and draw their own invention ideas.

Refer to the *Little Inventors presentation* to help you create an inspiring atmosphere.

Watch the *Little Inventors challenge video* by our Chief Inventor Dominic Wilcox.

Have a class discussion on inventions, for example:

- What is an invention?
- Can you name some well known inventions?
- What about ordinary objects? Why were they invented?
- Inventions are used to solve problems – can you think about problems or things that could be made more interesting or fun?
- Can you think of someone who has a problem or finds things difficult? How can you help them?

Note some children may draw robots to tidy their bedroom or do their homework for example. While robots are fun, try to encourage the creation of unique and original invention ideas.

Follow up Depending on time available and abilities, children can either move on to do the *Character profiler*, the *Mind-mapping* or go straight to drawing with *What's your invention?*

Character profiler 10-20 mins

Inventions happen when someone needs help with something! Tell children that this *Character profiler* will help them form a picture in their mind of a character and what that character might find challenging.

- Give children a *Character profiler worksheet*.
- Ask them to choose one *Character card* and put it on the worksheet.
- Ask them to write down information about this character, by thinking about who they are, where they live, what they like or dislike.
- Ask them to come up with an invention idea that their character would need or like.

Differentiation Instead of writing their description, children could draw their character and add keywords to explain who they are, where they live, their likes and dislikes.

Extension activity You could ask children to write a story, or draw a comic strip about this character, their life and how the invention could change their life.

Follow up Depending on time available and abilities, children can either move on to do *Mind-mapping* or go straight to drawing with *What's your invention?*.

Mind mapping

10-20 mins

This *Mind mapping* exercise aims to encourage children to think about challenges in a bit more depth in order to develop a better idea for an invention.

- Give children a *Little Inventors Mind mapping* worksheet.
- Get them to choose one *Ready-made challenge card* and put it on the sheet.
- Ask them to write down words that come to their minds when reading their challenge.
- You might want to get children to work in pairs or small groups to share their ideas.
- You can help them by asking them to think about different questioning: what it is, where does it take place, when, who is involved, what happens etc.
- Ask children to repeat the process with the words they have written down to create another layer of words.
- Ask them to explore words they have written down – what idea does it give them for an invention?

Differentiation Choose one ready-made challenge and discuss it with the class and choose 4-5 keywords or themes for children to work from.

Extension activity Give children both a *Ready-made challenge card* and their completed *Character profiler*, and ask them to think about how they could link the two together.

Follow up Depending on time available and abilities, children can either explore the *Character profiler* if they haven't already completed it or start drawing with *What's your invention?*.

What's your invention? 20-40 mins

Once children have had a chance to develop their ideas a little through discussion in *Get started!*, the *Character profiler* and/or the *Mind mapping*, give them a *Little Inventors drawing sheet* to draw and explain their invention.

- Make sure that children put their name and age on the worksheet.
- First, ask them to draw using a black pen as an outline, and add colours to their invention to bring it to life. Ask them to label parts on their drawing to explain how it works.
- Secondly, ask children to name and explain their invention - what does it do? Who is it for? What is it made of? How big is it?
- Tell them they are briefing someone to make their invention (which could happen!).

Students can draw more than one invention if they want.

Differentiation Children make a video or audio recording to explain how they got their idea in their own words.

Extension activities Children come up with their own invention ideas, draw them and explain how they think it can work and how it can be made.

Children can also create adverts for their invention by designing leaflets or making a video.

Follow up Use Round-up to finish the session and upload the invention ideas to littleinventors.org.

Round-up! 5-15 mins

Gather all the children's invention drawings in a gallery around the classroom/ workspace.

Get children to discuss their favourite ideas – what do they like and why? Encourage positive feedback throughout.

- What do they think of their invention?
- What are its strengths and weaknesses?
- What would they do differently?
- Can they imagine other people using their inventions? What would they say?

- What other ideas or challenges can they think of?
- Why are inventions useful?
- How will they approach problems in the future?

Follow up Make sure you upload the childrens invention ideas on *littleinventors.org* for a chance to get picked as team favourites, turned into animations or even get made into real objects!

Want more inventions?

Inventors! Project video

In 2015, Dominic Wilcox returned to his home town to work with The Cultural Spring in Sunderland and South Tyneside. He asked over 450 children to draw their own invention ideas. He then asked local makers and manufacturers to make a selection of them into real things. Little Inventors was born out of the success of the Inventors! Project.

<https://www.youtube.com/watch?v=obzpQSRdvCQ>

The Reinvention of Normal

The Reinvention of Normal follows artist, designer, inventor Dominic Wilcox on his quest for new ideas....Transforming the mundane and ordinary into something surprising, wondrous and strangely thought provoking.

<http://dominicwilcox.com/portfolio/the-reinvention-of-normal/>