### Invent a Solution

As part of DT lessons, children learn about coming up with a range of different solutions to problems, as well as learning about asking questions and being prepared to fail. This is a natural link to growth mindset. Children who feel they can keep improving will make the most progress.

"An inventor fails 999 times, and if he succeeds once, he's in. He treats his failures simply as practice shots." Charles Kettering (inventor)

### Evaluation

Ask the children to look for small problems in their everyday lives that need solutions. For example, they might have difficulty remembering their homework or tidying their room, they might always argue with their siblings over what to watch on TV or with their friends about what games to play. Encourage the children to identify these problems and come up with creative ways to solve them.

Is it better if you ask an adult to solve these problems or if you reach your own solution? Does it make you happier when these problems are solved?



## Activity 1 - Circle Time



#### curriculum Link: English

#### Objectives

a listen and respond appropriately to adults and their peers arguments and opinions

# Activity

During circle time discuss inventions and inventors. What inventions do we use every day that have really changed our lives? Is there one you couldn't live without? Kettle? Car? Playstation? Make a case for which invention is the most important.

Brainstorm the qualities you need to be an inventor. Who in the class displays some of those qualities?

Does an inventor need to be rich? Do adults make better inventors than children?

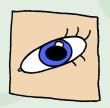
#### Suggestion

Watch 10 Inventions Made By Kids: https://www.youtube.com/watch?v=lKBb 2wn-io

Read about or watch the video of Easton LaChappelle, who made his first robotic hand at the age of 14: https://www.youtube.com/watch?v=HGKQDrQge40

Points for discussion: Were you surprised these children were so young when they came up with their inventions? What led them to their big idea? Do you think every child is capable of inventing something? Do you think their parents or teachers did anything to produce inventor children or was it solely their own brilliance? Children to debate nature/nurture.

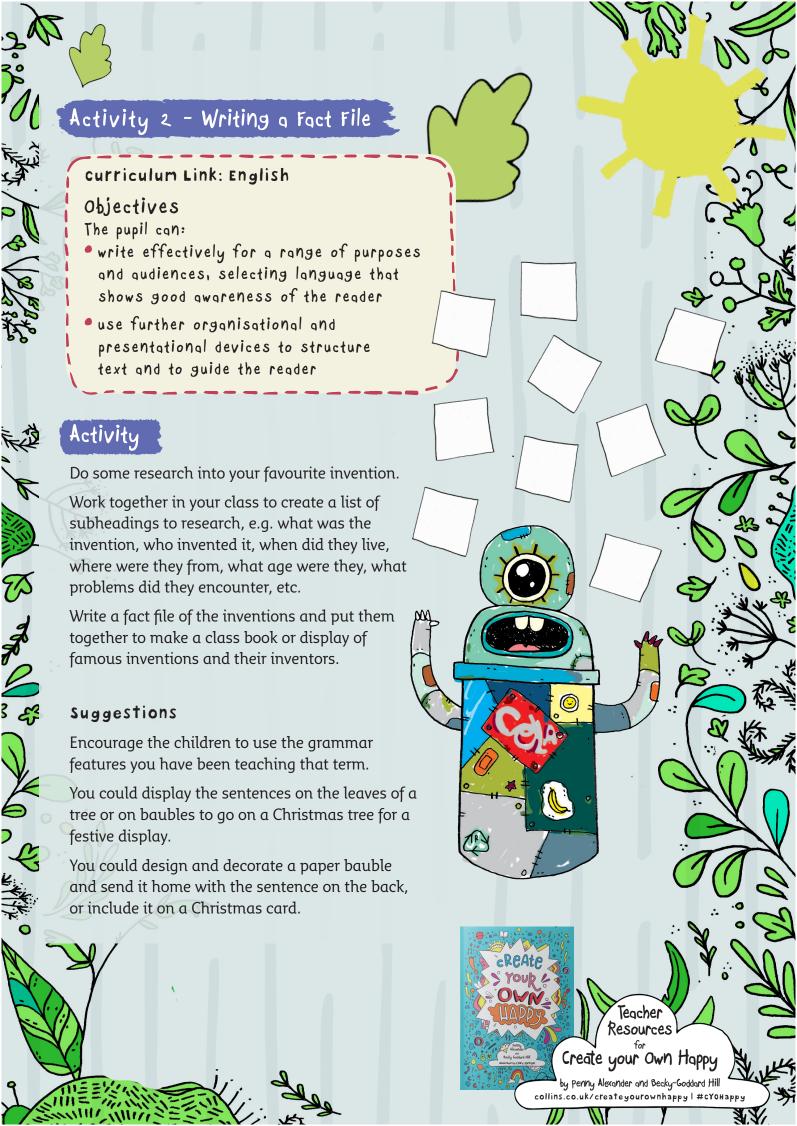












### Activity 3 - Invent a Solution

#### curriculum Link: DT

#### Objectives

DT2/1.2b select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

### Activity

Think of a problem that needs a solution. It could be a problem that's linked to a topic you are studying, or to something else in the school or the local area. For example, parking problems outside the school, using too many plastic bags, children forgetting their homework, parents not having enough hands to carry the shopping in.

Brainstorm as many different ideas as possible, without stopping to evaluate whether they are good or not.

Rate the ideas on a scale and think about how much they might cost to carry out. Are any of the ideas good but too expensive?

Take the two best ideas and create a plan for them. If there is time make a model for your design and evaluate it.

Do you think it will solve the problem? What difficulties might you encounter along the way?

### Suggestions

You could also link this to the DT curriculum, for example, making a moving toy for a younger child.

The children could work in pairs or small groups to brainstorm the ideas.

