

CINDERELLA ACTIVITY

TO DO:

Cinderella is at the ball. She needs to make sure she knows when the clock will strike midnight. Can you use the items she has in her bag to build a timing device to count 20 seconds exactly?

ACTIVITY INSTRUCTIONS: WHAT WILL CHILDREN BE DOING?

In this activity, children will act as engineers in order to help Cinderella with a problem.

What does Cinderella need? Think about simple devices that keep time. Can you come up with some ideas and design a solution?

Design, build and test your ideas – how well does your device work? What could you do to improve it? Talk about it and come up with a fantastic solution to this challenge!

Allow children to demonstrate how their design works, telling you what they did, what they used and why. Engineers solve problems, design solutions and communicate their ideas; you have been working just like real engineers!

ITEMS IN HER BAG COULD INCLUDE:

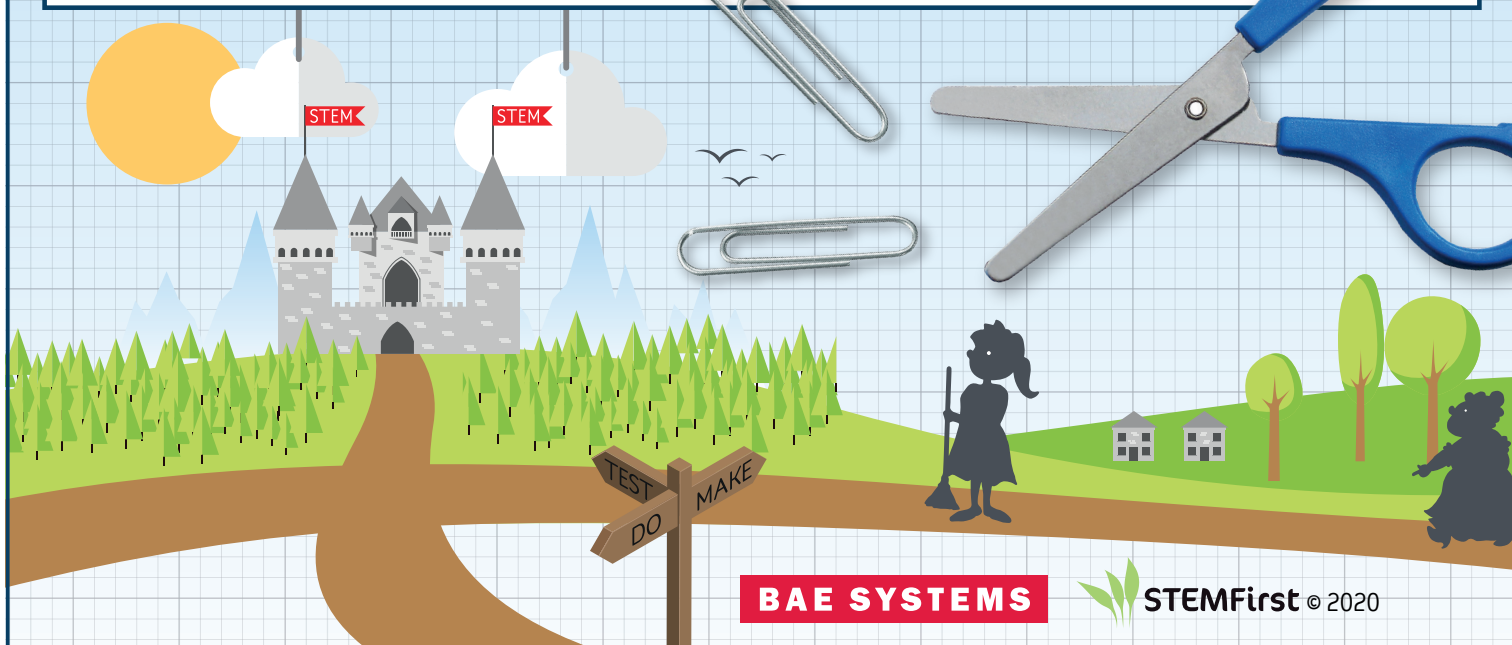
Use some of the following to design a timing device. It should measure as close to 20 seconds as possible. (The items below are just suggestions – just use what you have available.)

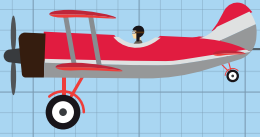
- Straws
- Some water
- Wooden skewers
- Tape
- Some sand
- Markers / pens
- Scissors
- Plastic / paper cups
- Tin foil
- Paper clips

• Test your timing device using a stopwatch. Once you are happy with it give the stopwatch to someone else and ask them to time you.

• Shout 'START' and start your device.
Shout 'STOP' when your device thinks 20 seconds has gone past.

• Check the stopwatch. How close were you?





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STEM IN THE STORY:

Why not listen to the story again and write down everything that is 'engineered' or made? There are lots of things in this story from electronic devices to clothing. Everything 'manufactured' needs engineering and technology.

HELPFUL HINTS:

Think about simple devices we use to keep time. Do some simple research on sand timers, sundials, water clocks or have a 'timer' hunt in your house and find all the things that keep time. Then brainstorm some ideas!

What could you make from the resources you have? How about a sand timer, or a water clock, or even a marble run that takes a certain time from start to finish?

Need inspiration? Then look at our STEM Ambassadors examples!

TALK TO YOUR LITTLE ENGINEERS ABOUT:

The skills that Cinderella has that makes her a good engineer. Some of these are mentioned in the story.

FOLLOW ON ACTIVITY:

Could you think of an amazing make-believe contraption to help people? Draw a picture of it and label it – the more imaginative the better.

You could be a mechanical engineer with those fantastic ideas!



TAKE CARE:

In all of these activities please make sure you are working safely. Please have fun but supervise your children to make sure your environment is safe and you take care with any craft equipment or materials you are using. Engineers and Scientists always do!