

Resources for Engineers Week (1st-5th March 2021)

Watch all the videos and choose a challenge then get your resources ready before you begin. Good luck!

Ms. Coakley - Boat Challenge

You Will Need:

- Thick card
- Scissors
- Sticky tape
- A cup
- Something to load onto the boats – rice or lentils are ideal (it's likely to get wet!)
- Container of water (a washing up bowl, a sink – or even a bath!)

Your challenge is to design and create an open-topped boat that will stay afloat with four cupsful of your load.

Ms. James - Chair Challenge

You Will Need:

- Five newspapers
- Scissors
- Sticky tape
- A cuddly toy

Your challenge is to design and test your own unique chair. The seat of your chair should be at least 30cm above the ground – and the structure should be able to take the weight of your cuddly toy.

Ms. Collins - Ice Box Challenge

You Will Need:

- Two plastic boxes
- Tin Foil
- Thick material (a jumper or fleece will do!)
- Ice cubes
- Timer

Your challenge is to design, make and test a cold box. The idea is that your cold box should be able to keep ice frozen longer than ice left in the second box at room temperature.

Ms. Dodd - Siphon Challenge

You Will Need:

- Straws (including some of the “bendy” type)
- Sticky tape
- Scissors
- Two empty plastic bottles

Your challenge is to construct and test a siphon from the straws that will transport the water to the other bottle (the destination).

Ms. Doyle - On A Roll Challenge

You Will Need:

- Four, five or six tins of food (ideally all roughly the same size)
- Ruler
- Heavy book
- Tape measure

Your challenge is to use the tins as a set of rollers to move the book along. You are only allowed to touch the book with the ruler – and you’ll have to lever it onto the rollers before you get going.

Ms. Barry - Treasure Chest Challenge

You Will Need:

- Cardboard box
- Stiff Card (enough to make a lid for the box, with a bit left over)
- Straws
- Sticky tape
- Scissors

Your challenge is to design two hinges, make them - and attach them to the lid to make a Treasure Box.