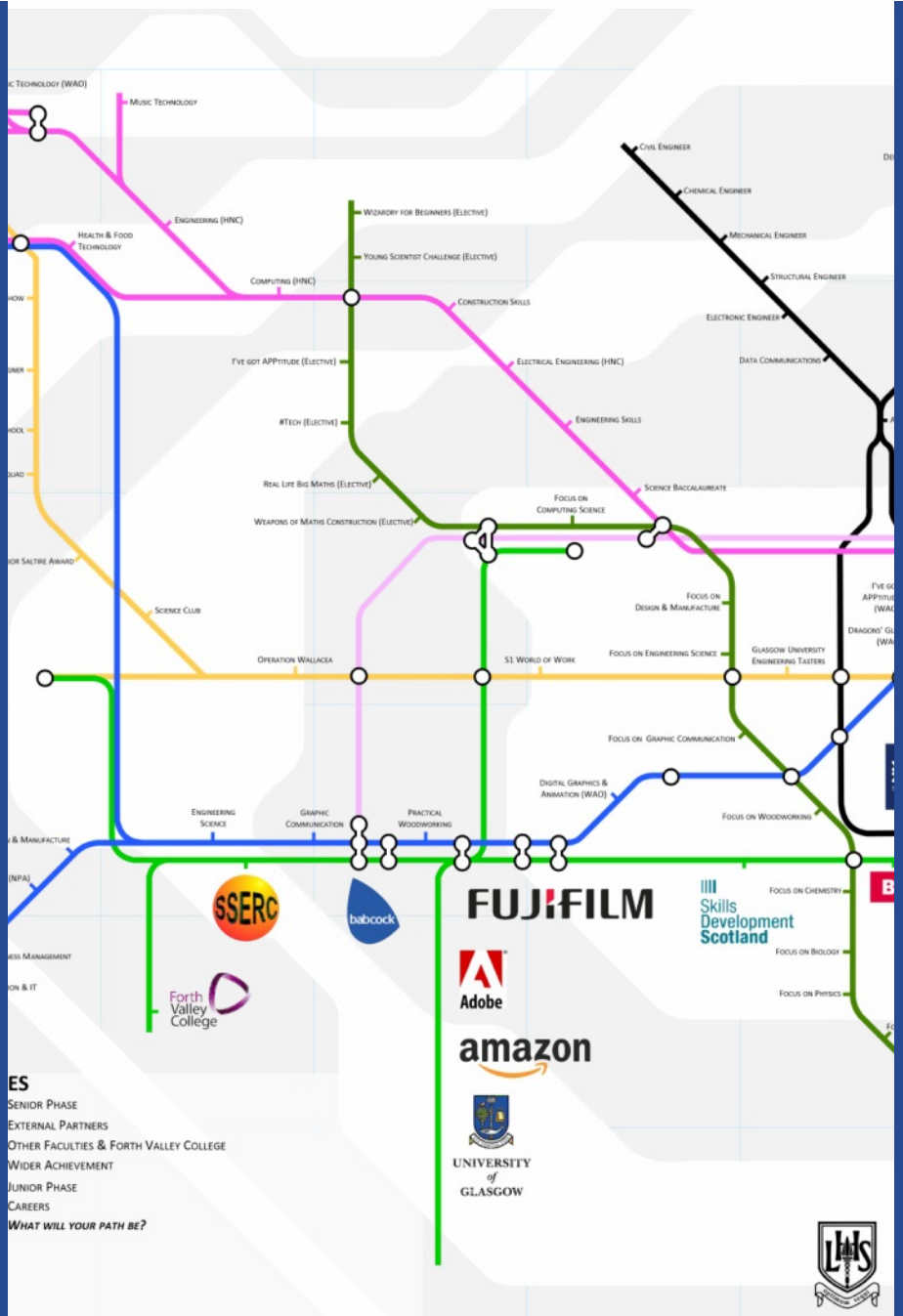


STEM Family Learning

Stop the Spread

Welcome Back!

Refinement of Idea

Imagine you work for a charity and have received some funding to help pupils in a school in Kenya reduce the spread of disease in their school.

Your challenge is to:

1. Build a model of a hand washing device that could go in their playground which will enable them to capture rainwater then use it to wash their hands.

2. Develop education materials which will help children aged 8-11 understand why hand washing is important. This could be a poster, animation, game, play, leaflet.

Stop the Spread!

Design Time! – Creative Skills

Now its your turn to start designing your model.

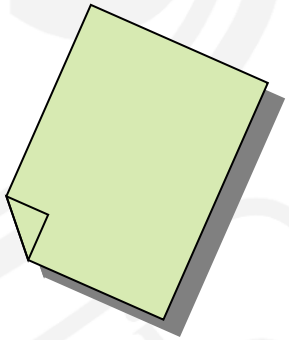
For your hand washing device:

Remember it must be able to both collect and dispense water.

It must use water efficiently (water is scarce in Kenya).

Think about how to avoid cross-contamination.

Use locally available, sustainable materials when possible.



Materials Available

- Cardboard
- Plastic bottles
- Cellotape
- Glue Gun
- String
- Pipe Cleaners
- Polystyrene
- Plastic Bags
- Balloons
- Dowel
- Scrap wood
- Cable Ties

Any recycling from home

Activity 1: Group Specification

We must have a set of criteria to judge our hand washing dispensers.

A specification describes what our model MUST do in order to succeed.

For example:

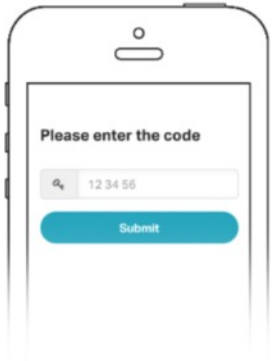
- The hand dispenser must dispense clean water.

1

Grab your phone

2

Go to www.menti.com



3

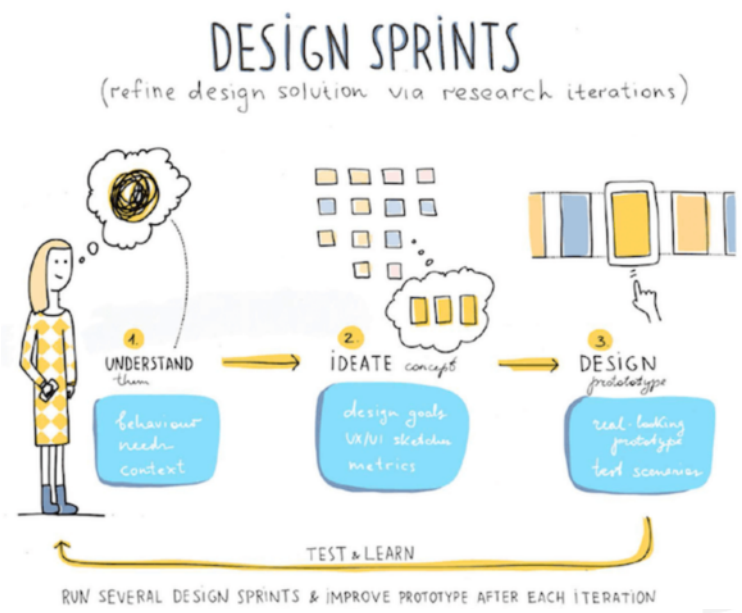
Enter the code 28 97 65 and vote!

Refine the design!

After creating our specification, is there any changes you can make to your design to ensure it meets the criteria?

Take 10 minutes to refine your design.

Top Tip: You can do this by adding notes (annotations) or sketches to your idea.



Modelling Materials

We will be working primarily with cardboard.

1. Creating Glue Tabs
2. Creating curves
3. Securing with glue or tape.

Take a cutting mat and knife and create a cube which requires no glue to secure it!

Modelling your idea

Take time to start modelling your idea!