

# STEM Family Learning

Stop the Spread





# Welcome! What is in store?

Session 1: Teambuilding Activity/ Introduction to Project.

Session 2: Challenge Planning/ Research

Session 3: Refinement and CREST Discovery Passport

Session 4: Model Making

Session 5: Testing and Evaluation / Intro to new Project



## Aims

- Increase your awareness of STEM
- Increase your **STEM Capital**
- To develop problem solving skills through practical problems.

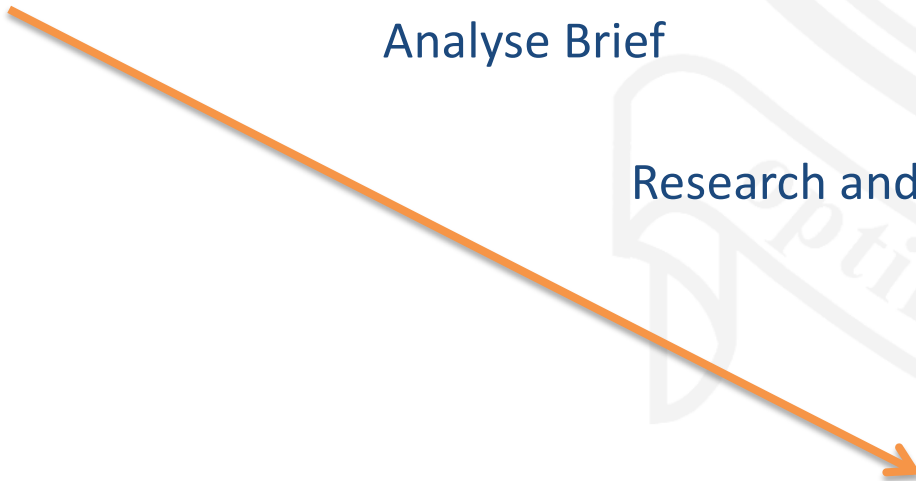
## Structure of STEM Activities

Identify a Problem

Analyse Brief

Research and Idea Generation

Model and Solution





# STEM Capital

STEM Capital incorporates an individuals STEM knowledge, attitudes and way of thinking.

[https://www.youtube.com/watch?v=A0t70bwPD6Y&feature=emb\\_logo](https://www.youtube.com/watch?v=A0t70bwPD6Y&feature=emb_logo)



# How to Structure a STEM Project.

## Planning

- Allocating roles and responsibilities.
- Analysing the brief.

## Research

- Looking into related topics and forming judgements.

## Presenting

- Displaying your research on a poster or presentation.
- Creating a model to emulate your design.



# Balloon Challenge- Communication Skills

You have 20 minutes to build and construct a balloon chair which will hold the weight of the youngest member of your team!

Materials available:

x20 Balloons and Tape.



# Task 1: Team Roles- which one were you?

Team Manager

Designer



Construction Manager

Resource Manager





## Reflect back... - Evaluation Skills

- Identify your role in the team?
- What was the problem? How did you tackle it?
- How did you manage your materials?
- How successful was your design?







## Stop the Spread Challenge

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.