The focus of this challenge is on improving hygiene as a way of reducing the spread of communicable diseases. It is important that pupils understand that hand washing is just one of the methods of prevention.

To find out more about what is being done to tackle this challenge go to: www.gatesfoundation.org/What-We-Do/Global-Development/Water-Sanitation-and-Hygiene

In pairs, ask pupils to make a list of any diseases/illnesses they know about and to divide them into communicable (e.g. malaria, AIDS, flu, glandular fever) and non-communicable (e.g. cancer, diabetes, scurvy, muscular dystrophy).

Explain that in their challenge they will be focusing on communicable diseases.

Ask pupils to think about the different ways communicable diseases spread. Show the slide to see how many they identified.

Explain that this challenge will focus on diseases that are spread by human contact.

Find out what pupils may already know about the Sustainable Development Goals (SDGs) or Global Goals.

In 2015 the UN set out 17 SDGs These aim to end global poverty by 2030.

The following are linked to preventing the spread of communicable diseases:

SDG 3 - Health and Well-being
- One of the targets is: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

SDG 6 – Water and Sanitation
- One of the targets is: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation.

Watch the video and ask pupils to look at the case study to help them understand what is already being done to help ‘stop the spread’. This will help with the communication part of their challenge later.
9. Introduce the details of the challenge. Emphasize that the second part, which is about re-search and communication, is as important as building the model.

10. Explain that after the challenge groups will present to the rest of the class for peer-to-peer assessment according to certain criteria. Hand out ‘Evaluating the Work of Others’ worksheet and again emphasize the model is only part of the challenge.

   If pupils are working towards a CREST Discovery Award make sure they have a Discovery passport and fill it in as they go along.

11. You may like to leave this slide up as a prompt for pupils when carrying out the challenge.

   - Divide the pupils into groups of 3-5.
   - Hand out the ‘Drop by Drop’ student pack to each pupil and allow time to ask questions.

   The test for the model will be pouring 250 ml of water onto the model and then demonstrating how it would be used to wash hands.

12. 

13. After evaluating their own designs, show pupils this tippy tap design used in Kenya.

   Ask them to compare their own design to this one. Is there any element from their design they would incorporate into their own? Conversely, do they think some of the ideas they had had would improve the tippy tap design?

   For more information about the tippy tap go to https://www.tippytap.org/the-tippy-tap

14. Stop the spread can be linked to a number of great initiatives such as CREST Awards, the Big Bang Competition, Great Science Share for schools and British Science Week. More information in the Teacher’s guide.

15. 

16. 

practicalaction.org/schools/stop-the-spread