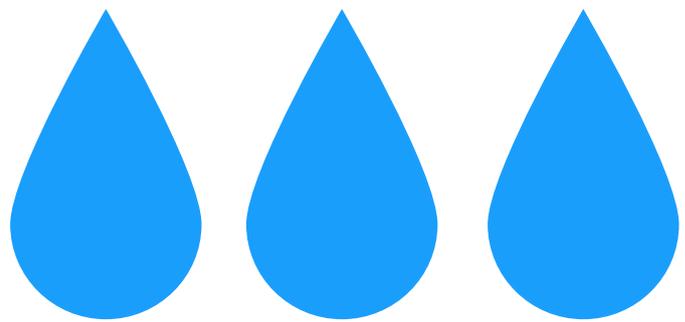
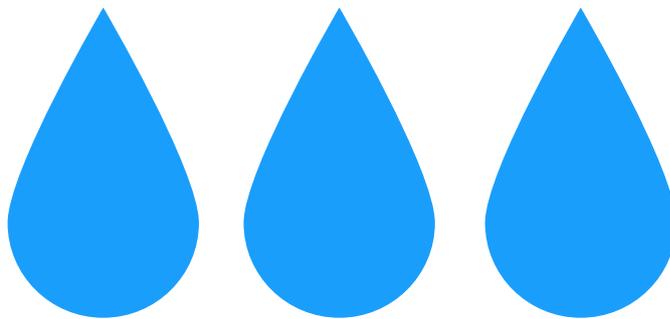


BEAT THE FLOOD

PowerPoint notes



1.		
2.		<p>Divide the class into small groups and hand out the <i>Where in the world</i> pictures and <i>World map</i> (N.B. this needs to be printed on A3).</p> <p>Ask pupils to match the photos to countries.</p>
3.		<p>Discuss that flooding is a problem faced across the world, including the UK.</p> <p>Prompt questions could include:</p> <ul style="list-style-type: none"> - Have you ever had any experience of dealing with flooding? - Do you think some countries experience more flooding than others? - Do you know what might cause flooding, or make it worse?
4.		<p>Ask pupils if they think the impact of flooding would be different for people in different parts of the world.</p> <p>You may wish to develop word clouds to summarise the feelings of the people whose homes have flooded in Europe and in a developing country.</p>
5.		<p>You may wish to stress that flooding is devastating for anyone...but some in countries such as Bangladesh people are feeling the severe impact of climate change to a much greater degree.</p> <p>There has always been a rainy season in Bangladesh, but now the rain lasts for longer and is heavier than in the past...with devastating effects. Recovery is also harder because the people there live in poverty.</p>
6.		<p>Pupil should now be aware that flooding is a global problem.</p> <p>Introduce the Sustainable Development Goals (SDGs) also known as the Global Goals.</p>
7.		<p>This is the full set of SDGs. You may want to print this out for display and/or to hand out. An explanation of each Goal is provided as a pupil activity sheet.</p> <p>SDG 11 Sustainable cities and communities is the Goal mostly closely linked to this challenge.</p> <p>There are two activities recommended in the Teacher's notes that you can carry out to aid understanding and engagement with the SDGs. Others can be found at practicalaction.org/schools/sdgs</p>
8.		<p>If time permits please give pupils the opportunity to do the starter activities on structures and testing materials for properties before embarking on the main challenge.</p> <p>Explain that the aim of the challenge is to design and build a model of a flood –proof house for a fictitious island called Watu island.</p>
9.		<p>Divide pupils into small groups</p> <p>Hand out the Watu island map and a community card to each group.</p>



10.		<p>Have a discussion with your class about what makes some areas and people at higher risk of floods than others. It may include proximity to a river bank, terrain, building such as schools, health centres may also be more vulnerable when dealing with younger or elderly people.</p> <p>For more able or older pupils – you might want to encourage pupils to look at some of technologies used by communities in flood-prone areas, such as early warning systems and evacuation procedures.</p>
11.		<p>Hand out all the relevant pupil activity sheets and encourage pupils to work through their ideas and the specifications before building their model. Show them the video from Practical Action and Ortis Deley filmed in Bangladesh.</p> <p>When pupils start to develop their ideas encourage them to look at the materials information cards, to see how modelling materials represent ‘real-life’ materials. For example, lolly sticks represent planks of wood.</p> <p>We suggest you give a maximum budget of £500 and encourage them to reducing cost where possible by using locally available materials. You could also introduce a sustainability element.</p>
12.		<p>We suggest that pupils present their model to the rest of the class reflecting on how well they worked together, problems they solved, etc. (this will be necessary if you are planning for your pupils to gain a CREST Discovery award).</p> <p>Hand out the <i>Team feedback sheets</i>, one per pupil so they know what criteria they will be working to.</p>
13.		<p>This is a brief case study of Shilna, who appears on the ‘Beat the Flood’ video on YouTube bit.ly/pasbtf</p>
14.		
15.		<p>Having completed Beat the Flood pupils can go on to use their work in a number of ways including taking part in the Big Bang competition, the Great Science Share for Schools, British Science Week, and gaining a CREST award. More information in the teacher’s notes.</p>
16.		