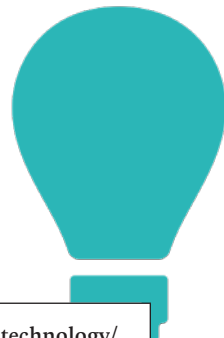










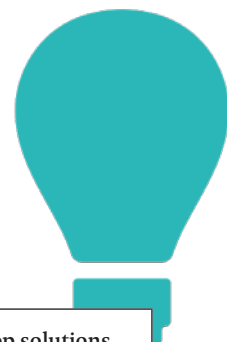









SMALL IS CHALLENGE

PowerPoint notes



1.		<p>This presentation accompanies a set of Small is challenge pupil activity sheets and a technology/product timeline poster.</p> <p>They can be downloaded at: practicalaction.org/schools/small-is-challenge.</p>
2.		<p>Ask pupils to guess the year these technologies/products that they are familiar with were invented.</p>
3.		<p>The dates have been sourced from: thoughtco.com/invention-timelines-4133297</p>
4.	<p>Marker activity</p>  <ul style="list-style-type: none"> • Paint • Comprehending • Thinking • Team 	<p>You might choose to run this as an extended research task where pupils can spend time finding out about new technologies/products.</p>
5.	<p>Technology teacher</p>  <p>Research the areas of innovation</p> <p>Research: Researching the past</p>	<p>Pupils can choose a technology from the timeline or any other technology or product of their choosing.</p> <p>Hand out the Pupil activity sheets (one per pupil)</p>
6.	 <p>The Future</p> <p>What's your vision of the future? Make the good changes.</p> <p>There are many people around the world thinking about technologies we might need and want in the future.</p>	
7.	 <p>Who's responsible?</p> <p>Making a difference could STEM from here.</p>	<p>There are many people around the world thinking about technologies we might need and want in the future.</p> <p>Ask the pupils to think of the range of Scientists, Designers, Technologists, Engineers and Maths professionals that might be involved in developing ideas for new products or technologies in the future.</p> <p>For examples of STEM professionals working in international development go to: practicalaction.org/schools/stem-careers</p>
8.	 <p>Sustainable Development Goals</p> <p>As a class, think about the Sustainable Development Goals and how they relate to the Small Is Challenge.</p> <p>How can we use our knowledge and skills to help achieve the Sustainable Development Goals?</p> <p>What can we do to help achieve the Sustainable Development Goals?</p> <p>More information can be found at globalgoals.org</p>	<p>The Sustainable Development Goals are also commonly known as the Global Goals.</p> <p>To find out more about the targets behind each one look at the display materials go to: practicalaction.org/schools/sdgs</p> <p>If you have time, we recommend that you run the Global Goals string activity and Who's responsible? They help to get the pupils thinking about the roles of Scientists, Technologists, Engineers and Maths professionals in developing technological solutions to many of the targets.</p> <p>More information can be found at globalgoals.org</p>
9.		
10.	 <p>Small is challenge</p> <p>Your challenge is to think about the role of technology in products that will help people in the future.</p>	<p>If you decided to link the challenge directly to the SDGs, you might want to specify that the design for their technology or product should be feasible to help reach the SDG targets before 2030.</p>



11.	 <p>Starting points for the challenge...</p> <p>You might decide to look at one or more of the Sustainable Development Goals. It might be useful to identify a problem that needs an innovative solution.</p>	<p>A number of the SDGs are dependent on STEM skills and technologies to develop solutions to reach the targets by 2030.</p> <p>They include Zero hunger, Clean water and sanitation, Affordable and clean energy, Sustainable cities, Climate action, and Sustainable production and consumption</p>
12.		
13.		<p>We suggest you ask pupils to have a think about the technologies and product they feel are really needed rather than wanted.</p>
14.		<p>You might want to extend pupils thinking around the impact of technology on people with our Winners and Losers activity. It can be downloaded at practicalaction.org/schools/winners-and-losers</p>
15.		<p>If your pupils are not familiar with doing a lifecycle analysis of products/technology, then you might want to introduce them to the concept with our activity Product Lifecycle Analysis. It can be found at practicalaction.org/schools/product-lifecycle-analysis</p>
16.		<p>When pupils are ready to get started hand out the sheets below and encourage them to draw and annotate their designs to include materials:</p> <p>Technology for the future: Initial ideas Technology for the future: Final ideas</p> <p>Allow pupils to share their own ideas and feedback on the ideas of others. You may like to display pupil ideas by extending the Technology timeline poster, and connecting images of their ideas to the point they think they could be possible.</p>
17.		
18.	