



Curriculum Outdoors

Curricular Area: Technologies –Technological Developments in Society and Business



<p><u>Experience and Outcomes</u></p> <p>I can extend and enhance my design skills to solve problems and construct models. TCH 2-09a</p> <p>I can extend my knowledge and understanding of engineering disciplines to create solutions. TCH 2-12a</p> <p><u>Learning Outcome</u></p> <p>To use a range of methods to join and strengthen materials To measure accurately using appropriate units and tools To evaluate solutions and explain why they are or are not suitable To build solutions to engineering problems</p>	<p><u>Resources</u></p> <ul style="list-style-type: none"> • Bridge Information Sheet: https://cutt.ly/EyZ9PgS and potentially laptops for additional research • Resources found outside, in the home, in the school, in the classroom
<p><u>Activity</u></p> <p style="text-align: center;">Air Quality Survey</p> <ol style="list-style-type: none"> 1. Pupils use information sheet attached and the links included to investigate bridges. Talk about bridges that they have seen – what is the structure like, what are they made of, etc 2. Pupils gather materials around their area – in school grounds, in classroom, at home – and build a bridge using them. You can set specific criteria with the pupils prior to this if you would like e.g. how big should it be? What weight should it be able to hold? What materials should be used etc. 3. Allow pupils time to draw a design of their bridge, think about any problems that they might encounter, how they might overcome them, what materials they are going to use and where, how will their bridge meet your success criteria? 4. Pupils build and test their bridge. Could finish with a 'gallery' where pupils get to look at other bridges and talk about them. 	<p><u>Assessment</u></p> <p>Teacher Assessment of Pupil Contributions to Discussion</p> <p>Pupils can talk about or demonstrate what they are doing/have done to build their bridge and why</p> <p>Pupils can talk about or demonstrate challenges they have encountered when building their bridges and how they overcame them/plan to overcome them</p> <p>Pupils can talk about something that they like about another bridge built by a peer</p> <p>Pupils can talk about something they did well to their bridge and something that they could improve the next time</p> <p>Potential extension: write instructions on how they built their bridge</p>