

Design and Technology: TASC

Year 5 Structures: Shelters

Autumn

Challenge:

To build a shelter that can protect a human from rain and wind

Competition Ideas (Choose 1)

1 Create a scorecard to assess each shelter (for example: appearance, stability, rainproof, wind proof). The group with the most points wins.

2 Children vote for the best shelter (not able to vote for their own shelter).

3 Upload photos of the shelters to the school website and hold a web vote to decide the best

Objectives

To investigate a range of shelters.

To explore how to join and combine materials and components and find out how to reinforce structures.

To find suitable textiles for the purpose of making a shelter.

To be able to design a shelter for a particular purpose.

To be able to make a shelter for a particular purpose.

The Journey

| Technical Knowledge | Design | Make | Evaluate |
|--|---|--|---|
| <p>What different types of shelter are there?</p> <p>Explore, discuss and investigate a range of shelters, thinking about what they are made from and their purpose</p> <p>How can canes and material be joined?</p> <p>Children explore different ways to connect canes together and material to the structure.</p> <p>What fabrics can be used that are waterproof?</p> <p>Children test fabrics to see if they would suitable for making a shelter.</p> | <p>Use the TASC wheel to plan and design a shelter that can protect a human from rain and wind.</p> <p>Complete the skills practice after the initial design.</p> | <p>Skills Practice</p> <ul style="list-style-type: none"> ◆ Task 1: In pairs learn a range of knots. Youtube links: https://www.youtube.com/watch?v=zIuUTxgLvJk https://www.youtube.com/watch?v=8b6ibDL7FE https://www.youtube.com/watch?v=uD9NaOsVbII ◆ Task 2: Children test materials to use on their shelter to meet the 'challenge'. <p>1) Use the TASC wheel to build the basic structure for the challenge.</p> <p>2) Adapt the design to make improvements.</p> | <p>Before Making</p> <ul style="list-style-type: none"> ◆ Explore and evaluate a range of existing products. ◆ Evaluate learning from skills practice and use this to adapt the final design. <p>After Making</p> <ul style="list-style-type: none"> ◆ Evaluate how effectively the final product meets the 'challenge'. |

Resources (Not an exhaustive list)

Canes, string, scissors, material,