

Resistant Materials in our Environment

Lesson 6: Designing and making for the nature reserve.

Learning Objectives:

- To design a product for a specific purpose.
- To choose appropriate materials.
- To apply knowledge and understanding acquired when evaluating products in previous lessons.
- To consider the needs of the environment in both their design and choice of materials.

Resources:

As appropriate for the task.

Activity:

This is a design and make assignment.

The pupils will individually, or in groups, design a product that will either:

- develop an existing or proposed local nature reserve, either at school or elsewhere;
- improve the school environment for wildlife.

The product could be linked to:

- access management (eg fencing, gates, steps, paths, seating, direction signs, sculpture or 'street art' etc);
- creating purpose designed wildlife habitats (eg bird boxes, bat boxes, bird feeding stations, hedgehog homes, ponds, compost holder etc);
- interpretation (eg information boards, nature trails, exposed soil profiles etc.)

Explain the task and brainstorm with the pupils the range of appropriate products that could be designed and made by the pupils.

Discuss with the pupils the process they'll need to follow to complete the task. They will need to:

- select a product that, with help and guidance, is within their capabilities;
- check that there is a need for the product by questioning appropriate people;
- draw on their experience of similar products to work out what to include in their design;
- make a draft design and change and improve it after consultation with potential users and other interested people;
- decide on appropriate materials;
- produce simple plans or models;
- suggest an ordered sequencing of the task;
- use tools, equipment and techniques safely and with precision.

Let the pupils complete the activity and make an 'event' of establishing their products in situ and celebrating their achievements.