

# Y3 Autumn: Making Mini Greenhouses

**KNOWLEDGE**

1. What is the purpose and features of a greenhouse?  
It is a building where plants that need protection from cold weather and harmful insects are grown. It is mostly made from transparent materials which trap the heat inside the greenhouse. Ventilation is needed.

**Design (researching)**

**KNOWLEDGE**

2. What factors make a structure stable?  
The stability of a structure depends on mainly two factors: materials and shape of product. The frame needs to be made from strong materials. The weight of the structure needs to be evenly spread on the base.

**Make (using equipment)**  
Technical Knowledge (materials and structures)

**KNOWLEDGE**

3. What materials would be suitable to make a greenhouse and how best would you join these?  
Frame: lollipop sticks, wire, plant pot, etc.  
Transparent material: hard plastic from packaging, clingfilm, glass jars, etc.  
Join: Glue gun, PVA, Sellotape, masking tape, glue stick.

**Make (using tools and materials)**  
Technical Knowledge (materials and structures)

**KNOWLEDGE**

4. How can we use a specific design criteria to create a mini greenhouse?  
Encourage children to consider a broad enough base and select appropriate materials and joining methods to make a strong structure.

**Design (planning)**

**KNOWLEDGE**

5. Can you follow a design to create a successful product which meets the design specifications?  
Encourage children to think about the features to make a strong, stable structure.

**Make (using tools and materials)**  
Technical Knowledge (materials and structures)

**KNOWLEDGE**

6. How can we evaluate a product effectively?  
Encourage children to refer to their original design and design criteria. Also, encourage them to think about how they can improve their final product in the future.

**Evaluate**

## Prior Understanding

- Importance of research and design criteria
- Use of tools and equipment when designing a product

## Links

- Science (plants)

## Experience

- Design and create a mini greenhouse