

Making Mini Greenhouses : DT : Year 3/4

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To explore existing greenhouses	In this first lesson, children will find out the purpose of a greenhouse, and how it can help plants to grow. In their independent activity they will show their understanding of this by labelling diagrams, answering questions and writing explanations. In the alternative activity, children will look at and discuss a range of different types of greenhouses.	<ul style="list-style-type: none"> Do children know what a greenhouse is used for? Do children know how a greenhouse helps plants to grow? Can children analyse and discuss different types of greenhouses? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Greenhouse Picture Cards (FSD? activity only)
Lesson 2	To investigate stable structures	Children will explore the factors that make a structure stable, and then apply this knowledge and understanding to greenhouses. In their independent activities, children will investigate the best frame size and shape for a stable structure that also lets in the maximum amount of sunlight. In the FSD? activity, children focus on how they could improve the stability of a structure by using other materials as extra support.	<ul style="list-style-type: none"> Do children understand the term 'stable'? Can they identify factors that make a structure stable? Can they discuss how to make a structure more/less stable? 	<ul style="list-style-type: none"> Slides Instructions Cards 3D Shape Templates A/B/C/D Scissors, glue 3D Shape Template E (FSD? activity only) Stability Testing Sheet (FSD? activity only) Ideas Cards (FSD? activity only) Extra card, dowelling, straws, sellotape, glue, staplers, etc (FSD? activity only)
Lesson 3	To investigate materials for making a mini greenhouse	Children will begin by debating the effectiveness of a mini greenhouse in comparison to a full-size greenhouse. They will then share ideas for which materials they think might be suitable for the frame and the sections within the frame of a mini greenhouse. Children further explore and compare suitable materials in their independent activities.	<ul style="list-style-type: none"> Can children identify suitable materials for a mini greenhouse? Can children explain why these materials are suitable? Can children discuss ways of joining these two materials together? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Worksheet 3D (FSD? activity only) Variety of materials for possible frames/coverings such as lolly sticks, dowelling, plastic wallets, clingfilm, straws, pipe cleaners, old hula hoops, plastic bottles, CD cases, wooden picture frames with glass removed, chickenwire etc (FSD? activity only)
Lesson 4	To design a mini greenhouse	In this lesson, children are split into groups and given discussion cards which will encourage them to share opinions and generate ideas about the best designs for a mini greenhouse. They will then use what they have discussed to design and plan their mini greenhouse.	<ul style="list-style-type: none"> Can children apply their knowledge of stable structures and suitable materials when designing a mini greenhouse? Can children follow specific design criteria? Can children identify possible challenging parts of their design/help others to find solutions? 	<ul style="list-style-type: none"> Slides Discussion Cards Worksheet 4A/4B/4C Paper/mini whiteboards (optional) Client Request Cards (FSD? activity only) Worksheet 4D (FSD? activity only)
Lesson 5	To make a mini greenhouse	Children will make their mini greenhouses according to their plans and design criteria. They will be encouraged to be organised and think carefully about each step in the making process. Children will be reminded that, if necessary, they can make changes to their design to improve the overall finished product. They will discuss any safety issues before beginning.	<ul style="list-style-type: none"> Can children follow a design to create a successful product? Can children amend their design to improve a product/give suggestions to others as solutions to problems? Can children work safely and sensibly with a range of materials and tools? 	<ul style="list-style-type: none"> Slides Equipment such as scissors, sellotape, glue, staplers Children's worksheets from Lesson 4 Materials (refer to children's designs from the previous lesson as to what specific materials will be required). Comment Cards
Lesson 6	To evaluate a finished product	In this final lesson, children will understand the importance of evaluating a finished product, and as a class will generate possible suitable questions. In their independent activities, children will evaluate their own completed mini greenhouse. In the alternative activity, children will discuss, evaluate and assess different aspects of each other's designs as a class.	<ul style="list-style-type: none"> Do children understand the importance of evaluating a finished product? Can children identify what has been successful with their design? Can children identify any improvements that could be made to the design? 	<ul style="list-style-type: none"> Slides Evaluation Question Cards Worksheet 6A/6B Pitch It! Prompt Cards Whiteboards/paper (optional) Evaluation Question List (FSD? activity only)