

# LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

## Den Designers: Making shelters from natural stuff!

**Overview:** In this fun, hands-on activity, children will use team work, communication skills and lots of creativity and imagination to build mini-shelters from outdoor materials.

**Who:** Years 3 - 4

**How long:** 60 minutes

### Objectives and Curriculum Links

This lesson enables students to:

- Work in teams to create, present and peer review mini dens.
- Practise teamwork, cooperation and communication skills
- Enjoy being and working outside

We've designed the lesson to help teachers cover the following subject areas:

KS2 Design and Technology

#### *Design*

- use research and develop design criteria to inform the design products that are fit for purpose, aimed at particular individuals or groups.
- generate, develop, model and communicate their ideas through discussion.

#### *Make*

- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

#### *Evaluate*

- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

#### *Technical knowledge*

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

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## Resources

- Natural material such as twigs, stones and leaves, found in school grounds.
- Earth materials such as clay or mud (optional).
- Small toy figures such as Barbie Dolls or Action Men.

## Pre-Starter (0-5 minutes)

Group the children into teams. Ask the children what makes a good team? Elicit the following answers: communication, positive attitude and support.

Give out 2 toy figures per group.

## Set the challenge (5 - 10 minutes)

Read out the following note:

*A storm is on the horizon and a group of intrepid outdoor explorers need a roof over their heads quick! Can you help them by building them a shelter or den made from natural materials you find from your school grounds?*

Get the children to start thinking about what a den needs to have. You could kick start the discussion by asking them what a camping trip requires.

## Mini-shelter building: A step-by-step guide (10 – 20 minutes)

Model a good location in your school grounds for building a mini-shelter, then show the children how and where to forage for good natural material. Emphasise to the children to remember the size of their toy figures. Finish with a 'Here's one I made earlier' mini-den and perhaps get the children to offer positive feedback about your creation. You could read out the following information to the children as you go along:

### Finding a good construction spot

Any place is suitable for a mini den, but the best places are ones that are naturally sheltered from wind, rain and other potential weather problems! In amongst tree roots, at the base of a hedge or against a large rock are examples of great shelter spots. Ask teams to spend some time finding a spot each.

### Forage for loose natural material such as leaves and twigs (not whole plants)

When building mini-dens outside you need look no further than the ground beneath your feet for some wonderful natural materials that have fallen from trees. These

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may include pinecones, acorns, curly twigs, or pieces of bark. Leaves and petals are great for roofing and decoration. Rocks and pebbles can strengthen a shelter against bad weather. Shop around; foraging outdoors offers endless possibilities!

Just remember to be careful with your foraging - not to upset the natural world by pulling branches off trees, stripping flowers off a plant or pulling moss off a rock, for example. You never know whose home you might be destroying!

If your school grounds offer only a piece of tarmac you can seed some resources to be 'found', such as twigs and leaves, or even recycled materials from your classroom, like card and paper, buttons or coloured ribbon.

## Start building your shelter! (20 - 50 minutes)

Now for the exciting part! What do all homes need? To start with – walls, an entrance and of course a roof! Perhaps a chimney and some extra rooms for food preparation, a sleeping area maybe and don't forget a toilet! But you don't have much time. Dens are supposed to be built quickly and roughly to shelter the inhabitants as quickly as possible. Just build the essentials and use what's already there to save time, such as the side of a tree root or a rock face to act as a wall. Or you could gently move a large overhanging leaf into position to act as a roof. There is nothing wrong in cutting corners, as long as your shelter is sturdy and comfortable. Once you've finished constructing your basic den, think about decorating and adding furniture! Bottle tops and small twigs can easily make a chair or table. Use clay, mud, string or glue to keep things together.

Ask pupils to consider the following during the construction of their shelters:

- How big does the shelter need to be to comfortably house the toy figures?
- How will the shelter stay up in different weather conditions such as rain, wind and snow?
- What makes a house a home - What living areas do we need? e.g. toilet, sleeping, carpets, food preparation etc. What will these be constructed from?
- Where will we source water and what food will we eat for dinner?

## Plenary (50 - 60 minutes)

It's time for the shelter show-off! Well done Den Designers! Now for the tour of your natural homes. Ask each group to justify why it is the perfect mini den in terms of location, materials choice, design and any other special features. Or decide on one of these reasons for discussion. Encourage as many team members to join in. An



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extension of this could be to ask the students to tour around each den, placing one post-it note on the part of the den they like the most with reasons why. Finish by congratulating all the teams and perhaps photographing them with their dens!