



PENRITH

# TREES FOR SHADE

## Ages: 0 to 3



### WHAT TO DO

Preparation: Collect buckets of water, large paint brushes and rollers.

Begin the activity by asking children to share what they know about the sun and sunshine. Use some of the questions below to stimulate discussion.

Take the children outside and give each child a paintbrush and roller and invite them to “paint” the footpaths, bricks, trees, and so on with water.

After a few minutes, ask which of the places they painted have begun to dry. Children will probably see that sunny areas dry faster than shaded areas. Explain that the parts that dry faster are in the sunshine and are therefore hotter; that’s why the water dries faster.

Encourage children to experiment with painting in other places and see which areas dry faster or slower.

### PROVOCATIONS

- I wonder where the sun is?
- I wonder how the sunshine feels?
- I wonder if the sunshine is warm or cold?
- I wonder what else we know about the sun and sunshine?
- I wonder how the shade feels?
- I wonder if shade is warm or cool?

### POSSIBLE LINES OF DEVELOPMENT

- Talk to children about sun safety.
- Talk to children about the role of trees in providing shade.
- Give children acrylic prisms, coloured film and other translucent objects and encourage them to see what happens when the sun shines through them onto the ground. Repeat the activity with objects that block the sun (umbrellas, cardboard and so on).

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*Adapted from [coolaustralia.org](http://coolaustralia.org) - sign up free for more Early Learning, Primary and Secondary curriculum resources about science, the environment and sustainability. A Cooling the City resource for Penrith City Council with One Tree Per Child.*





**PENRITH**

# TREES FOR SHADE

## Ages: 2 to 3

### WHAT TO DO

Preparation: Collect buckets of water, large paint brushes and rollers.

Begin the activity by asking children to share what they know about the sun and sunshine. Use some of the questions below to stimulate discussion.

Take the children outside and give each child a paintbrush and roller and invite them to “paint” the footpaths, bricks, trees, and so on with water.

After a few minutes, ask which of the places they painted have begun to dry. Children will probably see that sunny areas dry faster than shaded areas. Explain that the parts that dry faster are in the sunshine and are therefore hotter; that’s why the water dries faster.

Encourage children to paint shadows. They could paint the shadows of each other, of the trees, of the building, or anything that has a shadow.

### PROVOCATIONS

- I wonder where the sun is?
- I wonder how the sunshine feels?
- I wonder if the sunshine is warm or cold?
- I wonder what else we know about the sun and sunshine?
- I wonder how the shade feels?
- I wonder if shade is warm or cool?
- I wonder where shadows come from?
- I wonder why we have to be safe with the sun?

### POSSIBLE LINES OF DEVELOPMENT

- Talk to children about sun safety.
- Talk to children about the role of trees in providing shade.
- Give children acrylic prisms, coloured film and other translucent objects. Encourage children to see what happens when the sun shines through them onto the ground. Repeat the activity with objects that block the sun (umbrellas, cardboard and so on).
- Ask children to cut shapes out of paper and take them outside to see the shadows they make. Can they trace these shadows with chalk?
- Wet a range of objects and place them out in the sun to see which ones dry the fastest. Objects could include rocks, wood, paper, cardboard, aluminium foil, fabric etc.

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PENRITH

# TREES FOR SHADE

## Ages: 3 to 5



### WHAT TO DO

Begin the activity by asking children to share what they know about the sun and sunshine. Use some of the questions below to stimulate discussion.

Take children outside and ask them to look at the shapes of shadows cast by trees and other objects in the yard. Show children how to make chalk outlines of these shadows.

After half an hour ask children to revisit their chalk outlines and make new outlines with a different colour.

Repeat again after another half an hour. Each time, ask them to notice where the sun is in the sky. How far have the shadows moved?

Record children's comments and questions about the sun, and create a question board in the classroom that can be revisited later. Ask children to speculate on the answers, and consider undertaking research as a class to answer the questions the children raised.

### PROVOCATIONS

- I wonder where the sun is?
- I wonder how the sunshine feels?
- I wonder if the sunshine is warm or cold?
- I wonder what else we know about the sun and sunshine?
- I wonder how the shade feels?
- I wonder if shade is warm or cool?
- I wonder where shadows come from?
- I wonder if shadows stay still or if they move?

### POSSIBLE LINES OF DEVELOPMENT

- Talk to children about sun safety.
- Talk to children about the role of trees in providing shade.
- Give children acrylic prisms, coloured film and other translucent objects. Encourage children to see what happens when the sun shines through them onto the ground. Repeat the activity with objects that block the sun (umbrellas, cardboard and so on).
- Discuss why nature needs sunlight (to give plants energy to grow, so that animals that eat plants can live, and so that animals that eat other animals can live).
- Discuss why we also need shade (keep cool, stop things from drying out, places for animals to live and rest, places for children to play and rest).

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