Light **Worksheet 18**

Shadows

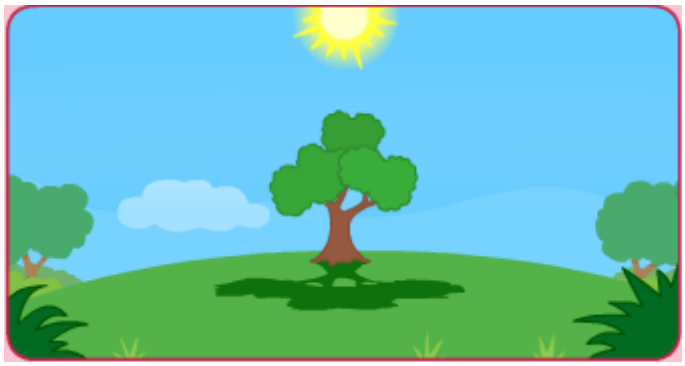
You will need:

a sunny day

a piece of chalk

a partner

a clock or stopwatch



- Go into the playground.
- Stand with the sun behind you.
- Ask your partner to draw round your shadow carefully.
- Ask our partner to draw round your shoes.
- This will show where you have been standing.
- Put your name on your shadow.
- Now draw round your partner's shoes and shadow.

- After 20 minutes, go into the playground again.
- Stand in your shoe marks. Make sure your feet are where they were before.
- What has happened to your shadow?
- Draw pictures in your notebook to show what you have done.
- Write about what you have found.

2. Draw a picture here to show how your shadow is formed on the ground on a sunny day.

3. Alan and Paul moved a torch further away from a toy. They were investigating how this would affect the **size** of the shadow. Here is a table showing the results:

Distance between torch and toy (cm)	10	20	30	40
Size of shadow (cm)	80	65	53	48

a. When is the shadow biggest?_____.

b. When is it smallest?_____.

c. Write a conclusion:_____.

4. Now Alan and Paul try investigating the length of shadows. They move the torch higher. Help them to predict the table:

Height of the torch (cm)	5	20	35	50
Length of shadow (cm)	100			

Explain your predictions and tell your mates.