

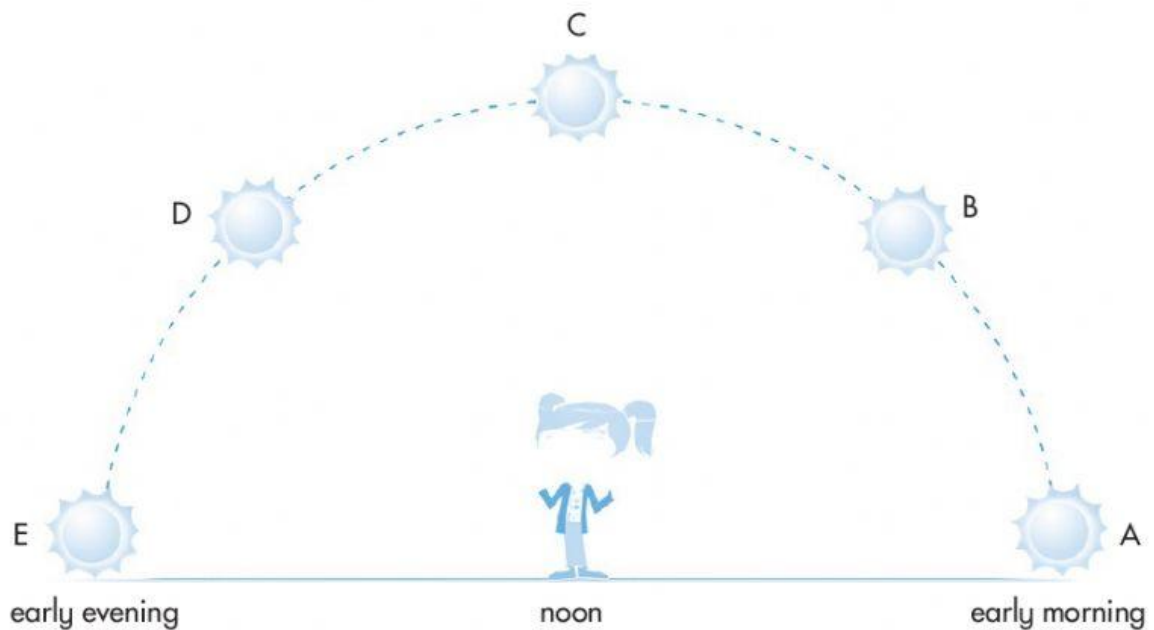
Worksheet 4

Does the Sun Move in the Sky?

Aim: To observe how the Sun appears to move in the sky and relate it to the spinning of the Earth

Skills: Observing, identifying, communicating

A, B, C, D and E are different positions of the Sun in the sky during the day.



- 1 From A to B, the Sun appears to move _____
(higher / lower) in the sky.
- 2 From D to E, the Sun appears to move _____
(higher / lower) in the sky.

3 The position of the Sun is the highest at _____
(A / B / C / D / E) when it is _____
(in the early morning / around noon / in the early evening).

4 Which of these is caused by the spinning of the Earth?
Tick (✓) the correct answers.

The cycle of day and night

☐

The Sun giving off light

☐

The Sun appearing to move across the sky during
the day

☐

The stars shining at night

☐

Worksheet 5

Changing Shadows

Aim: To find out how the shadow of a straw changes as the position of the light source changes

Skills: Observing, communicating, comparing, predicting, verifying

What you need: Paper plate, straw, sticky tape, flashlight

- 1 Flip over a paper plate. The bottom of the paper plate should face up.
- 2 Make a hole in the centre of the paper plate. Stick a straw through the hole in the paper plate.



You can use sticky tape to hold the straw in place.



- 3 Switch off the lights in the room. Switch on the flashlight.

- 4 Shine the flashlight at the straw from the right. Observe the position and size of the shadow of the straw.



- 5 Draw the shadow on the diagram in step 4.
- 6 Shine the flashlight from above the straw. Observe the position and size of the shadow of the straw.



- 7 Draw the shadow on the diagram in step 6.

Compare this shadow with the shadow in step 4.

The shadow _____ (is / is not) at the same position as the shadow in step 4.

The shadow is _____ (shorter / longer) than the shadow in step 4.

- 8 What do you think you will observe if the flashlight shines at the straw from the left?



The shadow will _____ (be / not be) at the same position as the shadow in step 6.

The shadow will be _____ (longer / shorter) than the shadow in step 6.

- 9 Now, shine the flashlight at the straw from the left. Observe the position and size of the shadow of the straw.
- 10 Draw the shadow on the diagram in step 8.

Compare this shadow with the shadow in step 6.

The shadow _____ (is / is not) at the same position as the shadow in step 6.

The shadow is _____ (longer / shorter) than the shadow in step 6.