

# STEM Challenge Support materials

## Make a shadow

**This pack includes...**

p2: **Challenge/Questions card**

p3-4: **Posters**

p5: **Practitioner notes**

p6-8: **Word cards (&blanks)** (for display or as flash cards)

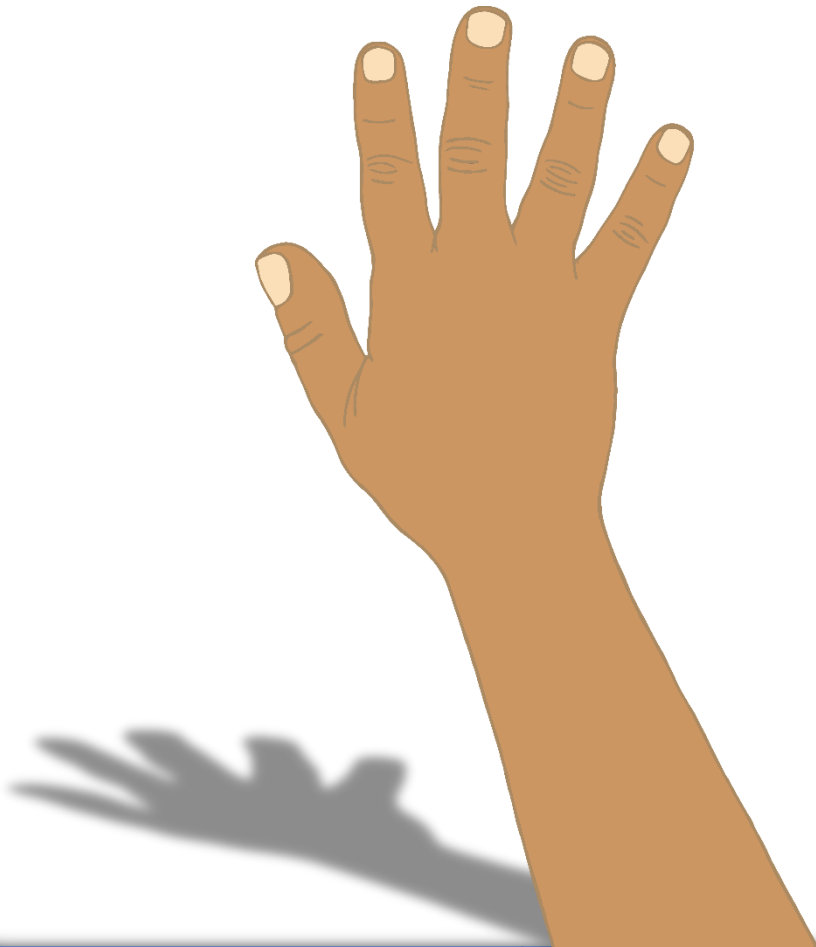
p9-11: **'What did we do?' sheets** (for writing, drawing, or adding a photograph)

p12-14: **'My experiment' sheets** (for writing, drawing, or adding a photograph)

## ★ STEM ★ Challenge ★

Can you...

...make a shadow?



## ? STEM ? Questions ?

Can you make the shadow bigger?

Can you make the shadow smaller?

Can you make different shadow shapes?

What happens when you move the light?



sun  
(light)



tree  
(object)

# Shadows



shadow

# Shadows

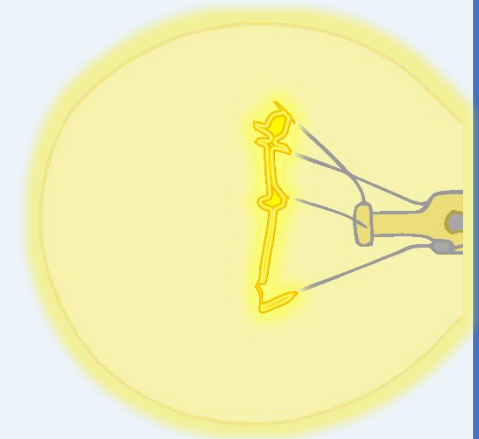
pencil  
(object)



shadow



lamp  
(light)



### Practitioner notes

#### Items that might be useful

- Torch or Lamp
- Different shaped objects
- A sunny day!

Encourage a short discussion about shadows.

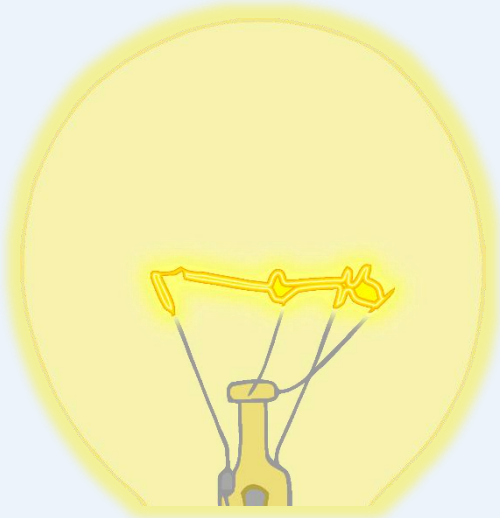
**What is a shadow? – Where have you seen a shadow?**

Give the children time to explore their ideas.

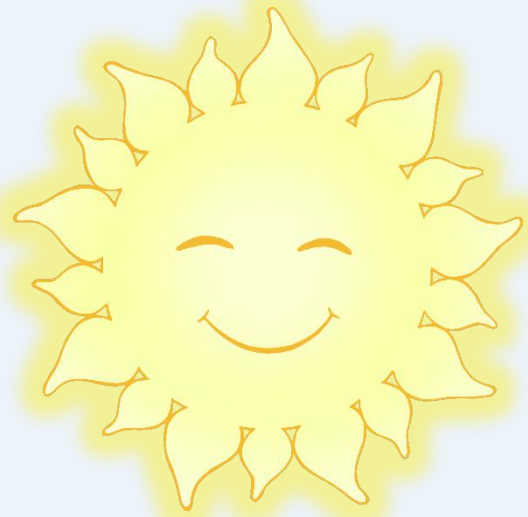
**How will you make a shadow? – What do you need?**

Allow the children to experiment with as much independence as possible. Let them discover how shadows change as you move an object or move the light source (if you can!).

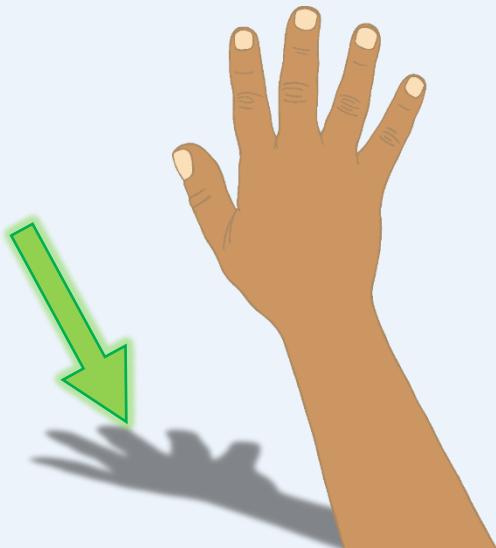
**How did you make the shadow bigger/smaller?**



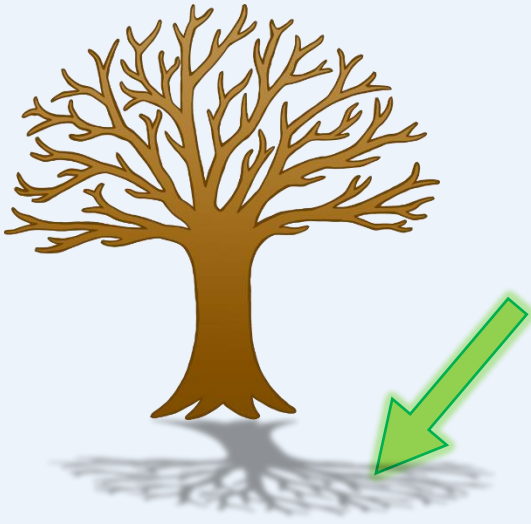
**light**



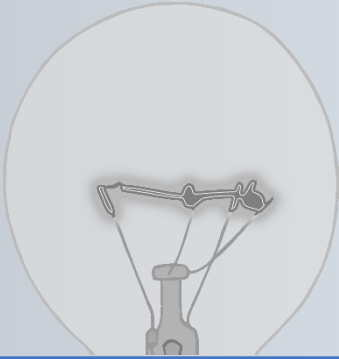
**sunlight**



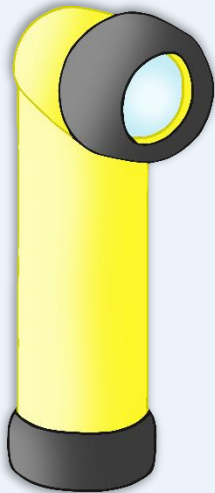
**shadow**



**shadow**



**dark**



**torch**

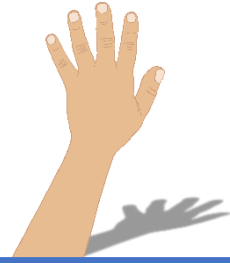
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# WHAT DID WE DO?



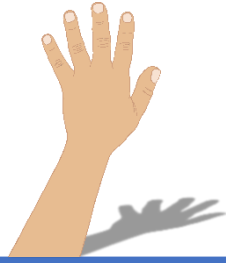
A large, empty rectangular box with rounded corners and a black border, intended for students to write their responses.

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# WHAT DID WE DO?

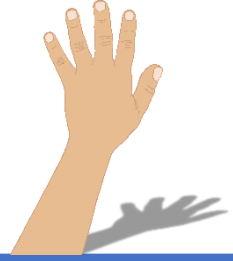


A large, empty rectangular box with rounded corners and a black border, intended for writing or drawing.

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# WHAT DID WE DO?



# My experiment



My experiment

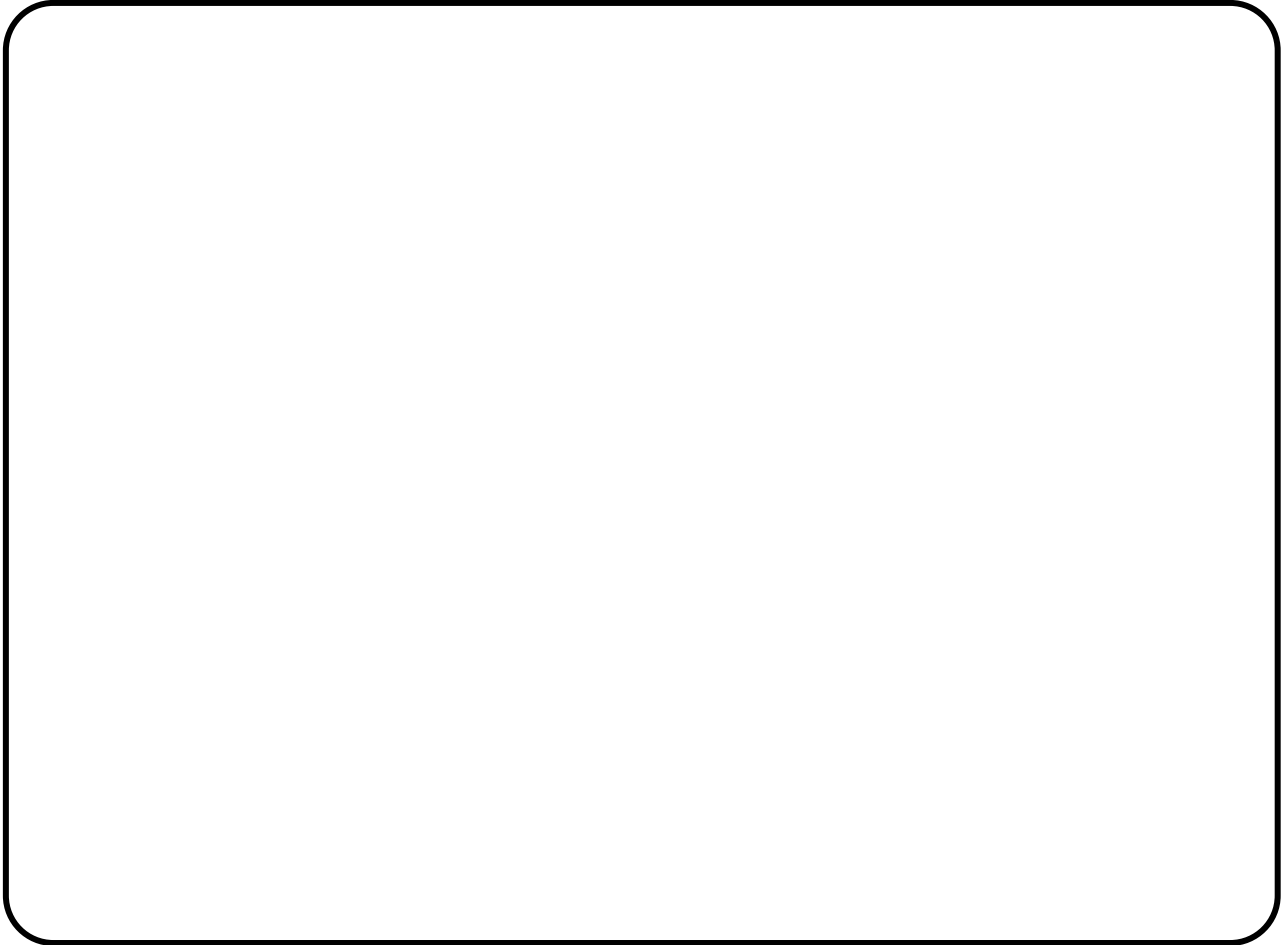
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# My experiment

My experiment



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# My experiment



My experiment