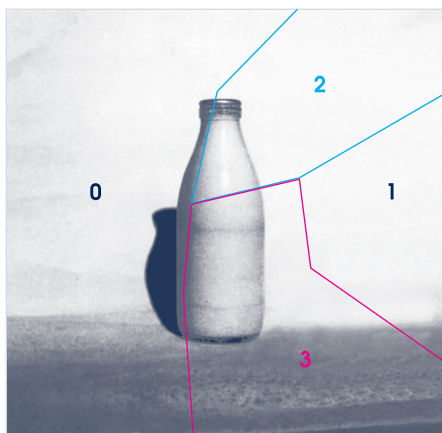


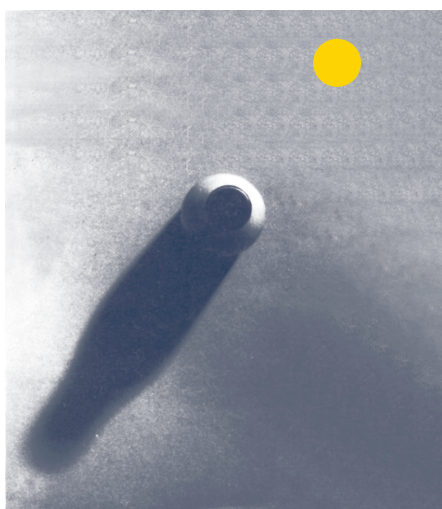
Approach: One to one
 Focus: Shadows
 Resources: Torch, yellow dot stickers, recording book, pictures in recording book

Questions / instructions:

Here are some pictures of a bottle of milk which has the sun shining on it.



Picture 1
 (marking template overlaid in colour)



Picture 2

Lets look at picture 1.

Point to picture 1.

1. Think about the direction the sun was shining from when the photo was taken.

Give student the torch.

Shine the torch to show where you think the sun was shining from. I'll put a sticker on the picture to show where you think the sun would be.

Put sticker on picture 1 in recording book to show sun position given by student.

Best option:
 (referring to marking template overlaid on picture 1 adjacent)

| | |
|--------------|---------|
| in section 3 | 60 (59) |
| in section 2 | 16 (14) |
| in section 1 | 8 (10) |

Point to picture 2.

2. Think about which direction the sun was shining from when this photo was taken. Shine the torch to show where you think the sun was shining from.

I'll put a sticker on the picture to show where you think the sun would be.

Put sticker on picture 2 in the recording book to show sun position given by student.

Best option: sticker directly opposite shadow 61 (60)

3. Why do you think the shadow is longer in picture 2 than in picture 1?

PROMPT: *What caused the shadow to be longer?* not marked •

| | | |
|---------------------|---|---------|
| Total score: | 4 | 41 (41) |
| | 3 | 26 (25) |
| | 2 | 14 (12) |
| | 1 | 10 (11) |
| | 0 | 9 (11) |

% responses
 2003 ('99)
 year 4

Commentary:

There was virtually no change between 1999 and 2003.