

Dark room

Assessing learning

Learning intentions <i>Students should:</i>	Evidence of Learning <i>Students will be able to:</i>
<ul style="list-style-type: none"> use the 'passive eye' model of vision to explain how a person sees luminous and non-luminous objects 	<ul style="list-style-type: none"> explain, using diagrams where appropriate, how a person sees a non-luminous object

Why this item?

Many students think that we can see in the dark, provided we wait for our eyes to adjust; or that a cat can see in the dark because its eyes give out light. This item provides evidence of students' understanding that a source of light is needed for us to be able to see.

Ways to use the item

The item could be used at the start of a series of lesson to find out what students believe about the way we see. The table has been designed to allow students to show how sure they are about their answers.

The item has also been provided as a presentation which could be used for discussion in small groups, with each group needing to agree on their answer and give their reasoning.

Evidence of learning

A student who understands the need for a light source to see things will choose

D nothing

The explanation is that because there is no source of light, so no light can be scattered into the eye.

Requirements

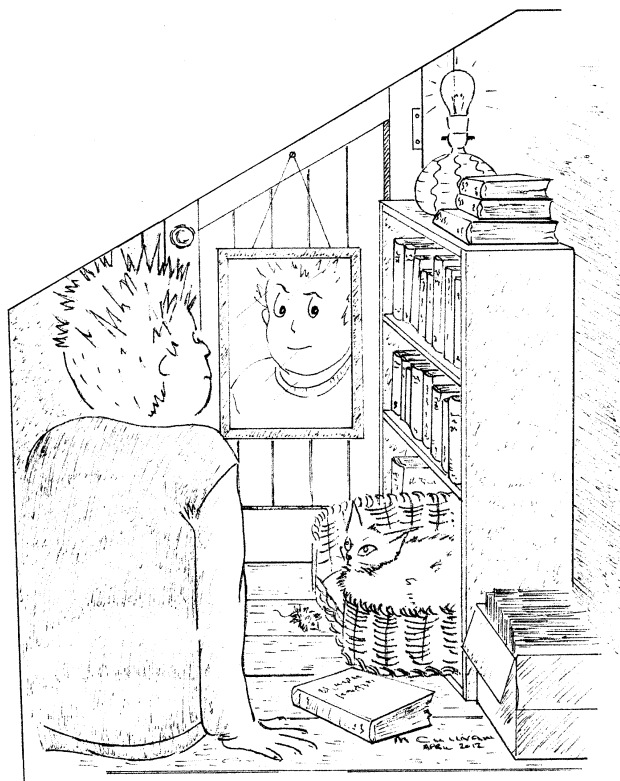
- (each student/group) the sheet *Dark room*
- OR
- data projector and [Presentation Dark Room](#)

Dark room

Inside the cupboard

Imagine you go into a cupboard under the stairs and close the door. There are no windows and the door is a very tight fit with draught excluders all round its edges.

On the shelves are some books, the cat is in her basket looking at you and you can see yourself in the mirror.



You switch off the light.

After sitting there for a while, what will you be able to see?

For each of the statements in the table below, put a tick (✓) in one column to show if it is right or wrong – and how sure you are.

Statement		I am sure this is right	I think this is right	I think this is wrong	I am sure this is wrong
A	After a while, you will be able to see everything, but very dim.				
B	The only thing you will see is the cat's eyes shining.				
C	You will see the mirror shining dimly, but everything else will be dark.				
D	You won't be able to see anything at all, no matter how long you wait.				