

## Introduction

Question loops are useful recap activities. This loop can be used as revision for simple environmental concepts. Key vocabulary for particular topics can be focused on each time the loop is played. There will be several sets of cards in the *Fun-Size* sections of the Science Year ASE CD ROMs.

## Running the activity

There are 27 cards, two to a page, all different. Print out the set of 27 cards on 14 sheets of paper (card 28 is a front cover card). It is helpful to print the cards on different coloured paper for each subject area. Cut the A4 sheets in half lengthwise to make a card and laminate it for maximum durability. You may also need a stop-clock.

Give out individual cards to each pupil, or split the pupils into small groups and give a certain number of cards to each group until none are left. It is important that all the cards are used every time, or there will be a gap in the loop.

Start the activity by getting one pupil to ask their question. Another pupil will recognise the correct answer on their card and read it out. They should then read their question and so on until the loop returns to the starting person. This should happen with the 27<sup>th</sup> question asked. Pupils should turn their card over when they have finished. Record the amount of time taken to complete the loop and see if the class can better their time at the end of the lesson

For information and a blank template file contact [nigel.heslop@scienceyear.com](mailto:nigel.heslop@scienceyear.com)

## Safety

Not applicable.

## More ideas

The questions can be used as the basis of a quiz. Key words could be displayed beside the teaching station. Sticky Velcro patches make a good support for the word display. There should only be a few key words to focus attention on the target vocabulary for that session.

## Learning outcomes

- Recap pupil knowledge of light, reflection, refraction, colour, dispersion and colour addition

## Where the activity fits in

Revising Year 6 physics topics  
QCA SoW Unit 8K

## Skills

Recall, vocabulary

## Acknowledgements

This idea was one originally seen used in a science context by Mike Evans and Linda Ellis.

Q1 A ray of light travels

A27 300,000,000 metres per sec  
(three hundred million m/s)

Q2 We can see things because

A1 in a straight line

Q3 The word transparent means

A2 all surfaces scatter or reflect light

Q4 The word opaque means

A3 the substance lets most of the light pass straight through

Q5 Matt black surfaces absorb

A4 the substance lets no light through

Q6 Objects that give out light are called

A5 all the light that falls on them

Q7 Mirrors reflect light without

A6 luminous

Q8 The law of reflection is

A7 scattering the rays, so you can see an image

Q9 The normal is a line

A8 the angle of incidence equals the angle of reflection

Q10 Where do you see an image in a plane (flat) mirror?

A9 at right angles to the mirror

Q11 A kaleidoscope is made from

A10 behind the mirror, the same distance behind it as the object is in front

Q12 When light passes through water or glass, it's direction can be changed. This is called

A11 two mirrors joined at an angle, you see a multiple image

Q13 White light can be split by a prism into

A12 refraction

Q14 A device for making a thin beam of light is called

A13 the seven colours of the visible spectrum



Q15 If you look at a letter 'F' in a plane mirror

A14 a ray box

Q16 Refraction by a glass block happens when light passes

A15 it is the right way up but back to front

Q17 When light passes from a less dense material (air) into a more dense material (glass), the ray is

A16 through the surfaces of a glass block, going into it and out of it

Q18 If you spin a disc with all the colours of the spectrum on it

A17 refracted toward the normal

Q19 A rainbow is caused by

A18 the colours will recombine to look white

Q20 The three primary colours of light are

A19 sunlight refracted by raindrops

Q21 The three secondary colours of light are

A20 red, blue and green

Q22 Yellow light is a mixture of

A21 magenta, cyan and yellow

Q23 Red materials look this colour because

A22 red light and green light

Q24 A green leaf under a red light source looks

A23 they only reflect red light, and absorb blue and green light

Q25 A yellow shirt under a green light  
source looks

A24 black

Q26 Mixing paints does NOT

A25 green

Q27 The speed of light is

A26 follow the same rules as mixing  
light