

Quizzes for Science *Workbooks*

The electronic revision activities on the *Workbook* CDs work well to help students learn the memory work needed for Level 5 Science, but very few students will use them unprompted. You need to direct them to do specific activities for homework, and then test their memory of the work the next day in class.

You cannot expect what you do not inspect.

Quizzing the work in class also helps students to remember the work they learnt the previous lesson, and provides revision for those who did not do their homework. Those students who did learn the work are greatly encouraged when they find they know the answers to the quiz questions.

The number codes on these quizzes match the coding system used for the revision activities. Revision task 1C 101 matches Quiz 1C 1; Revision tasks 2A 101, 2A 102 and 2A 103 all go with Quiz 2A 1. Quizzes 10A 1a and 10A 1b are parallel quizzes that both go with revision tasks 10A 101 and 10A 102. The Workbook Map lists all the revision tasks and quizzes so you can see the correlations clearly.

It can be convenient to have students do all their quizzes in a small (1B 4) exercise book that is kept in the lab. After each quiz is marked (by the students), it may be given a grade such as A–D, where A is close to 100%, B is above 85%, C is above 65% and D is below 65% (with the exact criteria for each grade shifting according to the difficulty of the quiz). It then becomes very easy to monitor student progress by flicking through the books every week or so. They can also be useful to bring along to parent interviews.

Printing this file

If you want to make a paper copy of this entire file, we suggest that you reduce the page size to 50%, printing 4 pages to a single A4 sheet. Start printing at page 2 — this will put question and answer pages next to each other. In the **Print** menu, first select **Pages from 2 to 105**, click on the **Properties** button (near the top), and select **4 Pages Per Sheet**, then click on **OK**, and **OK** again to print the file.

1A 1 Safety rules

Imagine you are the teacher of a year 9 Science class. You plan to do an experiment involving acids. What safety rules (state 4) would you remind your class about?

Answers to 1A 1 Safety rules

- 1 Wear your safety glasses.
- 2 Keep glassware and acid bottles away from the edges of benches.
- 3 Carry acid bottles carefully.
- 4 Wash your hands if any acid gets on them.
- 5 Clean up any spills immediately.

4A 1 Solutions

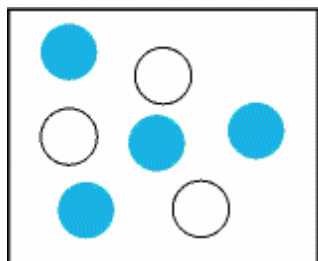
Write down the name for each of these elements.

1	When one liquid floats on another and doesn't mix we say it is ____.	6	A substance that will not dissolve is called ____.
2	A substance that can dissolve is called ____.	7	The solid dissolving is called the ____.
3	Two liquids that mix together are called ____.	8	The liquid dissolving a solid is called a ____.
4	When a solution cannot dissolve any more solid we say it is a ____.	9	A solution will always be ____.
5	A liquid with suspended particles will be ____.	10	To grow large crystals you need to evaporate the liquid ____.

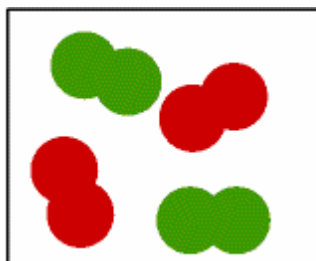
Answers to 4A 1 Solutions

1	immiscible	6	insoluble
2	soluble	7	solute
3	miscible	8	solvent
4	saturated solution	9	clear
5	cloudy	10	slowly

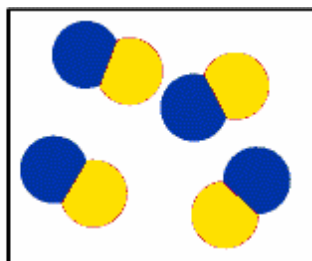
5A 2 Types of particles



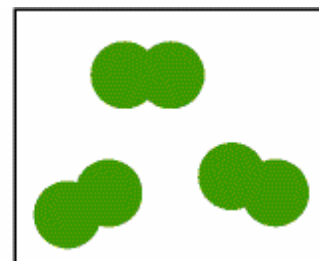
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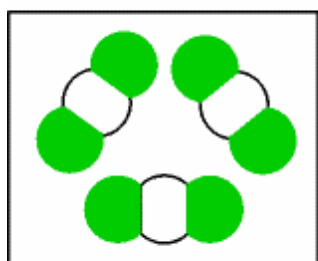
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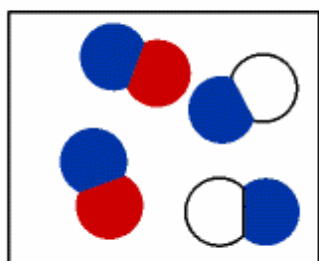
C



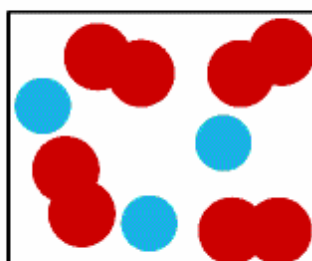
D



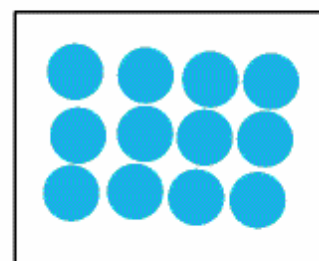
E



F



G



H

Write the letter(s) of the boxes which show:

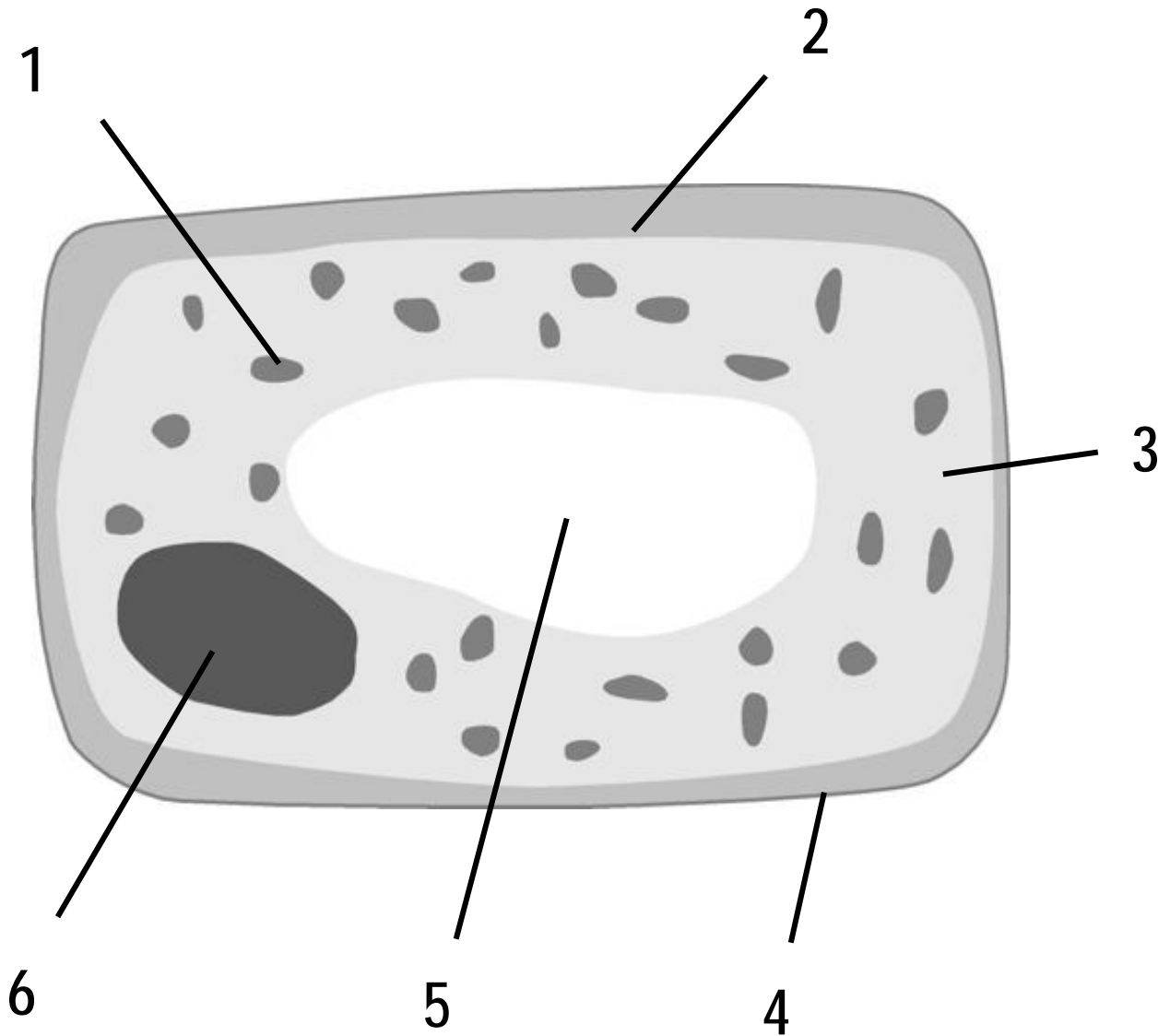
- 1 Atoms of an element
- 2 A mixture of compounds
- 3 A pure element
- 4 A mixture of atoms
- 5 A compound
- 6 A mixture of elements
- 7 Molecules

Answers to: 5A 2 Types of particles

- 1 H
- 2 F
- 3 D and H
- 4 A
- 5 C and E
- 6 B and G
- 7 B, C, D, E, F and G

6A 1b The parts of a cell

Write the name of each numbered part.

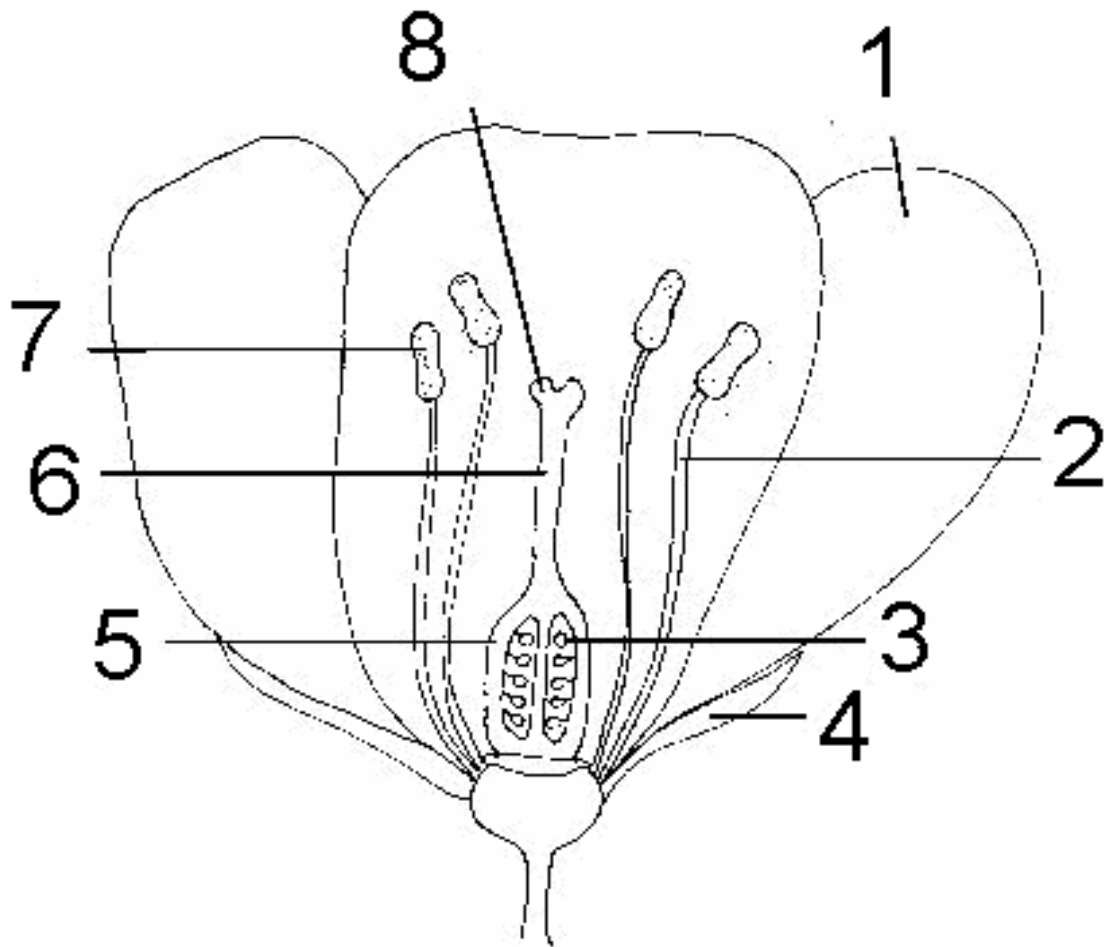


7 What kind of cell is this? Why?

Answers to: 6A 1b The parts of a cell

- 1 chloroplast
- 2 cell membrane
- 3 cytoplasm
- 4 cell wall
- 5 vacuole
- 6 nucleus
- 7 It is a plant cell, because only plant cells contain chloroplasts and only plant cells have a cell wall.

7B 1b Flower structure and function



1–8 State the name and function of the labelled parts of this flower.

9 The pollen is carried from ____ to ____.

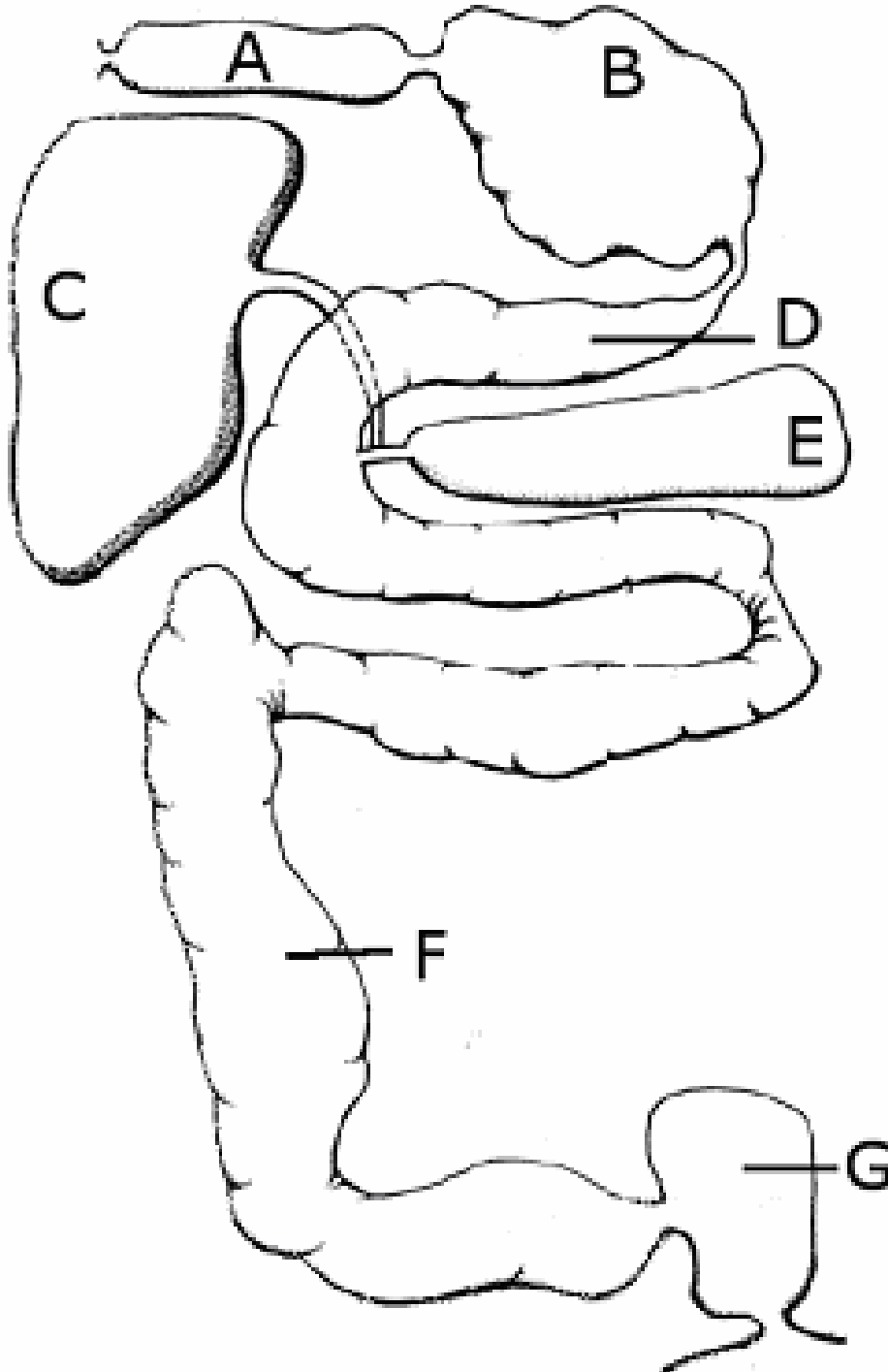
10 Fertilisation occurs in ____ (organ no.)

Answers to: 7b 1b Flower structure and function

	name	function
1	petals	coloured to attract insects
2	filament	to hold the anther up
3	ovule/ova	female gamete/sex cell
4	sepal	to protect the bud and flower
5	ovary	to hold the ova and form the seed pod
6	style	tube between the stigma and ovary
7	anther	holds the pollen
8	stigma	sticky to catch pollen
9	anther to stigma (7 to 8)	
10	3 (ovary)	

8B 2 Digestive system names

List the letters and names of the organs of the digestive system.



Answers to: 8B 2 Digestive system names

A	oesophagus
B	stomach
C	liver
D	small intestine/duodenum
E	pancreas
F	large intestine
G	bowel or rectum

8B 3 Digestive system – functions

Name the part of the digestive system.

1	Large muscular bag where a lot of digestion occurs.
2	Long coiled tube where food is digested and absorbed.
3	Large organ near the stomach that stores some food and makes bile.
4	Small fat tube where water is absorbed.
5	The removal of matter not made in the body, like faeces or vomit.
6	A small projection at the beginning of the large intestine that can be removed if infected.
7	Part of large intestine where waste is stored until it is eliminated.
8	The end of the digestive tract where food is egested.
9	A flat organ under the stomach that produces digestive juices.
10	First part of the small intestine, where most digestion occurs.

Answers to: 8B 3 Digestive system – functions

1	stomach
2	small intestine
3	liver
4	colon or large intestine
5	egestion
6	villi
7	colon
8	anus
9	pancreas
10	duodenum

9B 2 Classification – plant

Write the correct words for the gaps.

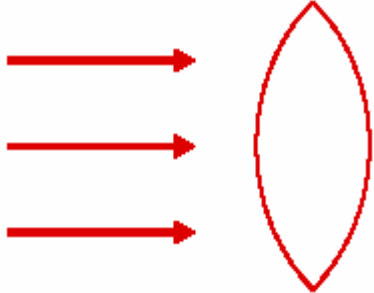
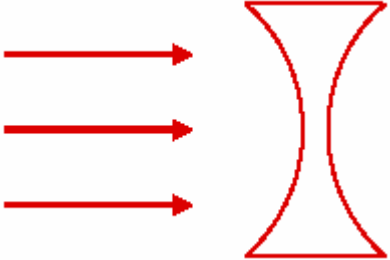
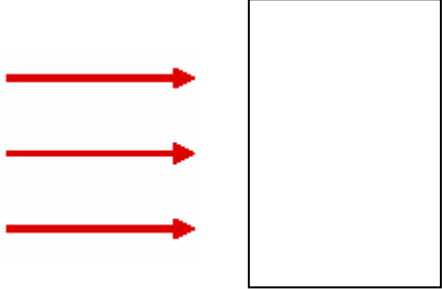
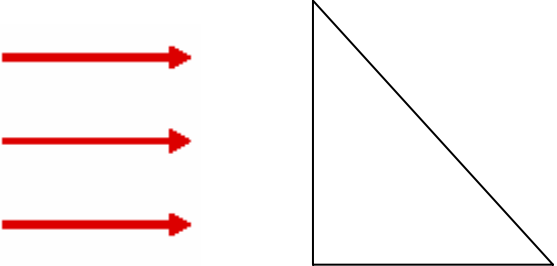
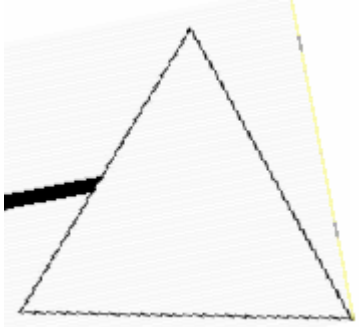
1	Mosses are simple plants that live in damp places . Their simple leaves have no ____.
2	The main criteria for plants is that they are multicellular and ____.
3	Ferns have stems, leaves and roots but no ____.
4	Seed plants form 2 main groups ____ and ____.
5	Conifers have no flowers but have ____.
6	Monocotyledons produce flowers and their leaves have ____ veins.
7	Docotyledons have a seed with ____ parts.

Answers to: 9B 2 Classification – plant

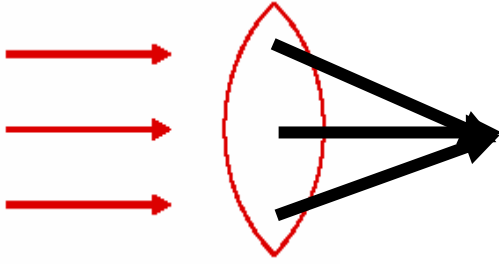
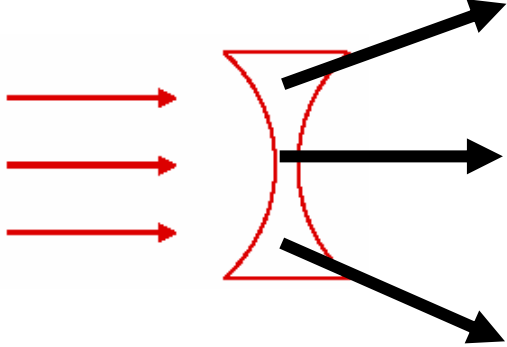
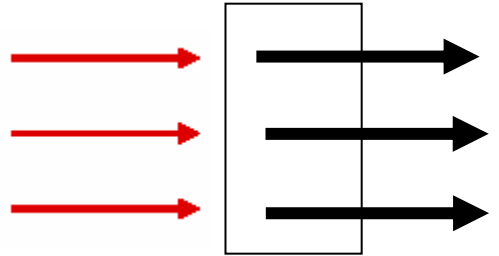
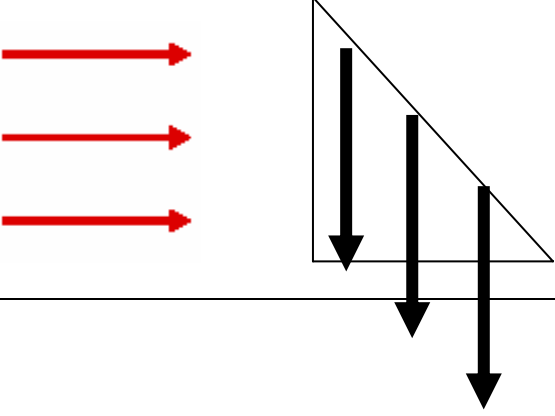
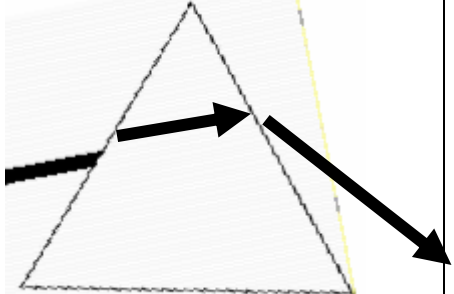
1	veins
2	carry out photosynthesis
3	seeds
4	Conifers and flowering plants (or gymnosperms and angiosperms)
5	cones
6	parallel
7	two

11C 2b Ray diagrams - refraction

Copy and complete the following ray diagrams to show what happens after refraction.

1		2	
3		4	
5			

Answers to 11C 2b Ray diagrams - refraction

1	 A ray diagram showing three parallel red arrows entering a convex lens from the left. Three black arrows emerge from the lens on the right, converging at a single point.
2	 A ray diagram showing three parallel red arrows entering a concave lens from the left. Three black arrows emerge from the lens on the right, diverging away from each other.
3	 A ray diagram showing three parallel red arrows entering a rectangular block from the left. Three parallel black arrows emerge from the block on the right, continuing in the same direction.
4	 A ray diagram showing three parallel red arrows entering a right-angled prism from the left. Three black arrows emerge from the prism, refracting downwards.
5	 A ray diagram showing a single black arrow entering a triangular prism from the left. The arrow refracts towards the normal at the first surface and away from the normal at the second surface, emerging as a single black arrow.

12A 2b Planet highs and lows

Which planet:

1	has the hottest surface temperature?	6	is the planet furthest from the Sun?
2	has the shortest day?	7	is the smallest planet?
3	is closest to the Sun?	8	has the most moons?
4	is the largest?	9	has the most extensive ring system?
5	has the coldest surface temperature?	10	has the most craters on its surface?

Answers to 12A 2b Planet highs and lows

1	Venus	6	Neptune
2	Jupiter	7	Mercury
3	Mercury	8	Jupiter
4	Jupiter	9	Saturn
5	Neptune	10	Mercury

12A 4 What kind of body is it?

Decide whether the each of these objects is a:
planet moon dwarf planet asteroid
meteoroid comet

1	This object has an irregular shape, orbits the Sun, has a small satellite and a diameter of about 100 m.	4	This object is spherical in shape, has its own moon, but shares its orbit with several other objects.
2	This object has a long, narrow orbit and forms a tail when it gets close to the Sun.	5	This object is spherical in shape, has many moons, and has cleared its orbit of other bodies.
3	This irregular shaped object orbits the Sun and has a diameter of 8 m.	6	This irregular-shaped object orbits a planet and has a diameter of 200 m.

Answers to 12A 4 What kind of body is it?

1	asteroid	4	dwarf planet
2	comet	5	planet
3	meteoroid	6	moon

12B 1 Orbits

1	The orbits of solar system bodies are ____ rather than circular.	6	Point on the orbit that is closest to the Sun.
2	The shortest distance across the orbit that passes through the mid-point between the foci is the ____ ____.	7	What happens to the surface temperature of a planet when it is at aphelion?
3	Word used to describe an ellipse which has the foci quite far apart.	8	Shape of orbit when both foci are at the same point.
4	Point on the orbit that is furthest from the Sun.	9	Each of the pins used to draw an ellipse are the ____ of the ellipse.
5	Object found at one focus of the orbit.	10	The longest distance across an orbit, that goes through both foci.

Answers to 12B 1 Orbits

1	elliptical	6	perihelion
2	minor axis	7	It gets colder.
3	eccentric	8	circular
4	aphelion	9	foci
5	Sun	10	major axis