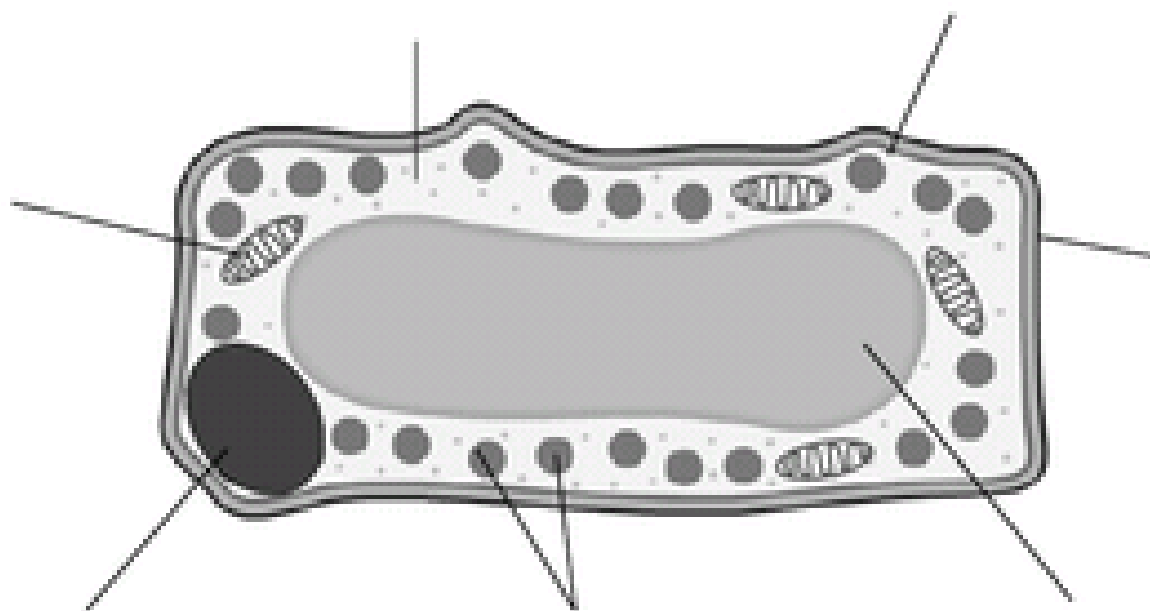
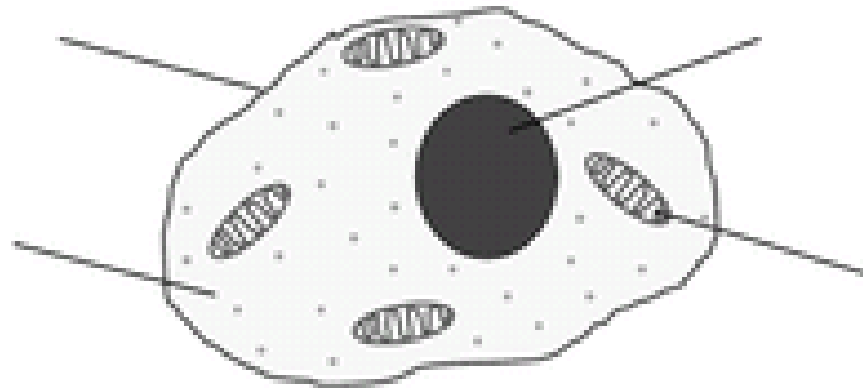


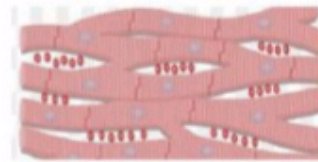
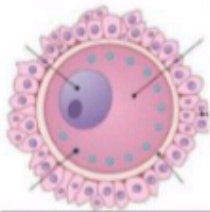
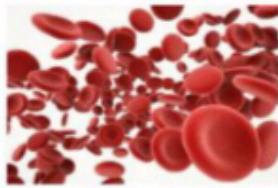
Plant and animal cells

- 1 Add a title for each diagram to show which is a plant cell and which is an animal cell.
- 2 Use the words in the box to label the cell diagrams. You may use some words more than once.

nucleus	cytoplasm	vacuole	cell wall
cell surface membrane	chloroplast	mitochondria	



Name the specialized cells shown in the pictures below.



SPERM CELL

EGG CELL

MUSCLE CELL

**EPITHELIAL
CELL**

NERVE CELL

**RED BLOOD
CELL**

I. Write whether each one is a solid, liquid, or gas.

1. Milk - _____
2. Cookie - _____
3. Oxygen - _____
4. Fish - _____
5. Pencil - _____
6. Maple syrup - _____
7. Shampoo - _____
8. Carbon dioxide - _____
9. Ice cube - _____
10. Paint - _____
11. Oil - _____
12. Salt - _____
13. Water vapour - _____
14. Gasoline - _____
15. Helium - _____
16. Sand - _____

II. Complete each sentence with the word solid, liquid, or gas.

1. A _____ has a definite shape. It does not take the shape of its container. It also has a definite volume because it can be measured.
2. A _____ does not have a definite shape. It takes the shape of its container. It does have a definite volume because it can be measured.
3. A _____ does not have a definite shape. It sometimes takes the shape of its container and sometimes flies freely around you. These particles are not connected to each other and take up whatever space is available.

1 Draw a line to match up the words with the correct description.

Element

Set group of two or more atoms joined together.

Compound

The simplest particles of matter, which we think of as being like a tiny ball.

Atom

Simplest type of substance. Contains only one kind of atom.

Molecule

Contains different kinds of atoms jumbled up but not joined together.

Mixture of elements

Contains two or more kinds of atoms (elements) joined together.

2 Tick *one* box to say if each the following substances are elements or compounds.













	Element	Compound
nitrogen	<input type="checkbox"/>	<input type="checkbox"/>
argon	<input type="checkbox"/>	<input type="checkbox"/>
oxygen	<input type="checkbox"/>	<input type="checkbox"/>
carbon dioxide	<input type="checkbox"/>	<input type="checkbox"/>

3 Write the word 'atoms' or 'molecules' below the correct diagrams.



Write the words to complete the diagrams about form of energy.

Chemical	Chemical	Chemical	Mechanical	Light
Electrical	Light	Heat	Light	Chemical
	Electrical	Mechanical		

 →  <input type="text"/>	<input type="text"/>	 →  <input type="text"/>	<input type="text"/>
 →  <input type="text"/>	<input type="text"/>	 →  <input type="text"/>	<input type="text"/>
 →  <input type="text"/>	<input type="text"/>	 →  <input type="text"/>	<input type="text"/>

Review of Mass and Weight

Remember that mass is measured in grams and is how much of something there is. Also remember that weight is the force of an object being pulled to the Earth by gravity, and is measured in Newtons (N). On Earth, something with a mass of 100g is pulled by gravity with a force of 1N, and so has a weight of 1N. That also means, with the help of some math calculations, that something with a mass of 1kg has a weight of 10N.

On another planet, mass is always the same. If the force of gravity on another planet is twice the gravity of Earth, then the weight of that object will double.

Answer the questions below, and remember to show your work for mathematical questions.

1. On Earth, how much force is needed to lift something with a mass of 100g?
2. On Earth, how much force is needed to lift something with a mass of 200g?
3. On Earth, how much force is needed to lift something with a mass of 1kg?
4. On Earth, how much force is needed to lift 2kg?
5. On Earth, something has a weight of 1N. What is its mass?
6. On Earth, something has a weight of 10N. What is its mass?
7. On Earth, something has a weight of 20N. What is its mass?

