Teaching notes

This is a simple activity that students seem to enjoy. Once it is completed they will often ask, 'Can we do it again?'.

It is suitable for:

- whole class work
- group work
- individual work
- revision
- lesson starters
- lesson consolidation
- homework.

Instructions

Print out the two tables, ideally onto card so they can be used again. If multiple sets are produced, print them onto different coloured card.

Each table needs to be cut down the middle and horizontally to create 16 individual cards, as below.

A stoma.	If it's more than one what do we call them?

1. Distribute the cards between members of the group or class.

2. Students may place the cards in front of them or keep them hidden.

3. Explain that it is a bit like dominoes. A question is read out and someone within the group or class has the answer. They read out the answer followed by the next question.

4. Point out that the answer to the previous question is on the left hand side, in the shaded box, and that the new question is on the right hand side, in the unshaded box.

5. The student who receives the card with 'start' on it reads out the first question.

6. The students look at their cards. The one who feels they have the answer puts their hand up and reads it out. If it is correct, they will then read out the next question. Completed cards are placed face down on the bench.

7. Answers are included on pp.4-5. In cases of poor literacy, you could intervene by reading out the next question.

8. The exercise continues until the 'starter' gives the final answer.

Other ways to use the resource

- It can be given as an individual exercise in class or for homework. The student could cut out and stick the cards into their exercise book, placing and numbering them in order. Otherwise, ask students to arrange the cards in sequential order in a pile. They can be quickly checked to see if task is done.

- It can become competitive as a class or group exercise. Time the first occasion you do the exercise and ask the students to record the time somewhere in their exercise books. Next time you do it, challenge them to knock some minutes off.

- Use the activity unexpectedly by asking the class to complete the exercise whilst being taught a different unit. This helps to refresh the memory.

Organelles.	Which organelles are responsible for aerobic respiration and releasing energy?	In the cytoplasm.	Which part of a cell contains the genetic material and controls the activity of the cell?
The ribosomes.	This cell has a cell wall. Is it a plant or animal cell?	No! Their shape usually depends on the function they do.	This cell has no permanent vacuole. Is it a plant or animal cell?
A sperm cell.	Which animal cell has no nucleus?	Chloroplasts, which contain the chemical chlorophyll.	Which specialised cells help plants take up water?
Guard cells.	What is the main function of the guard cell?	A stoma.	If it's more than one what do we call them?
Yes.	What does a cell membrane do?	Stomata.	What adds to the strength of a plant cell?
It controls what can go in and out of the cell.	What is the name given to the movement of water across a membrane?	A tissue.	Give an example of a tissue.
An organ.	Give two examples of organs.	It is a group of organs working together to complete a task.	Name two organ systems in an animal.
The shoot system and the root system.	Which bit of science equipment is needed to see details in cells?	The nervous system and the endocrine system.	Name the two main organ systems in a plant.

Plant cell.	Do all cells look the same?	The nucleus.	Proteins are made in cells. In which organelles?
An electron microscope.	Start: What is the name given to the basic units that make up all living things?	Chloroplasts are needed for photosynthesis. Animals don't photosynthesise their food.	Which cell has a tail to help it swim and carries half a set of DNA?
Cells.	What do we call the structures within cells?	A red blood cell.	What does a red blood cell do?
Mitochondria.	Where in a cell are the mitochondria generally found?	Carries oxygen.	Palisade cells are found in leaves. What's their main function?
Animal cell.	Why does an animal cell not have chloroplasts?	It controls the size of the pore. This affects the gas exchange and flow of water.	What is the proper name for this 'pore'?
To capture light energy for photosynthesis.	Name the organelles that can do this. Which chemical is involved?	The walls are made from cellulose.	Are cell membranes common to both animal and plant cells?
The heart and a leaf.	What is an organ system?	Osmosis.	What do we call a group of cells that look alike and have the same function?
A muscle.	What do we call a group of different tissues that work together?	Root hairs.	Name the specialist cells found on the underside of leaves.

Answers and order

Card order		Answers and questions on cards
1	A	An electron microscope.
start	**Q**	What is the name given to the basic units that make up all living things?
2	A	Cells.
	Q	What do we call the structures within cells?
3	A	Organelles.
	Q	Which organelles are responsible for aerobic respiration and releasing energy?
4	A	Mitochondria.
	Q	Where in a cell are the mitochondria generally found?
5	A	In the cytoplasm.
	Q	Which part of a cell contains the genetic material and controls the activity of the cell?
6	A	The nucleus.
	Q	Proteins are made in cells. In which organelles?
7	A	The ribosomes.
	Q	This cell has a cell wall. Is it a plant or animal cell?
8	A	Plant cell.
	Q	Do all cells look the same?
9	A	No! Their shape usually depends on the function they do.
	Q	This cell has no permanent vacuole. Is it a plant or animal cell?
10	A	Animal cell.
	Q	Why does an animal cell not have chloroplasts?
11	A	Chloroplasts are needed for photosynthesis. Animals don't photosynthesise their food.
	Q	Which cell has a tail to help it swim and carries half a set of DNA?
12	A	A sperm cell.
	Q	Which animal cell has no nucleus?
13	A	A red blood cell.
	Q	What does a red blood cell do?
14	A	Carries oxygen.
	Q	Palisade cells are found in leaves. What's their main function?
15	A	To capture light energy for photosynthesis.
	Q	Name the organelles that can do this. Which chemical is involved?

16	A	Chloroplasts, which contain the chemical chlorophyll.
	Q	Which specialised cell helps plants take up water?
17	A	Root hairs.
	Q	Name the specialist cells found on the underside of leaves.
18	A	Guard cells.
	Q	What is the main function of the guard cell?
19	A	It controls the size of the pore. This affects the gas exchange and flow of water.
	Q	What is the proper name for this ‘pore’?
20	A	A stoma.
	Q	If it’s more than one what do we call them?
21	A	Stomata.
	Q	What adds to the strength of a plant cell?
22	A	The walls are made from cellulose.
	Q	Are cell membranes common to both animal and plant cells?
23	A	Yes.
	Q	What does a cell membrane do?
24	A	It controls what can go in and out of the cell.
	Q	What is the name given to the movement of water across a membrane?
25	A	Osmosis.
	Q	What do we call a group of cells that look alike and have the same function?
26	A	A tissue.
	Q	Give an example of a tissue.
27	A	A muscle.
	Q	What do we call a group of different tissues that work together?
28	A	An organ.
	Q	Give two examples of organs.
29	A	The heart and a leaf.
	Q	What is an organ system?
30	A	It is a group of organs working together to carry out a function.
	Q	Name two organ systems in an animal.
31	A	The nervous system and the endocrine system.
	Q	Name the two main organ systems in a plant.
32	A	The shoot system and the root system.
	Q	Which bit of science equipment is needed to see details in cells?