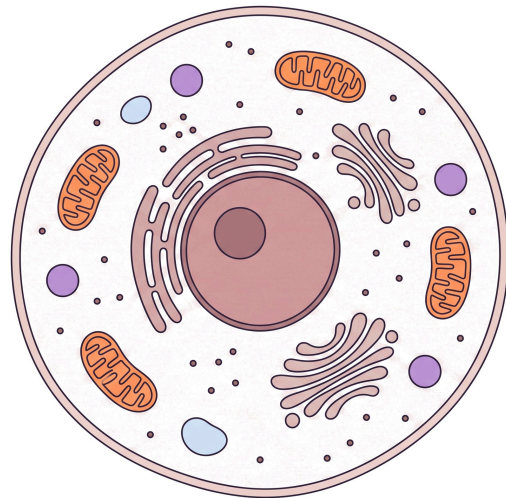
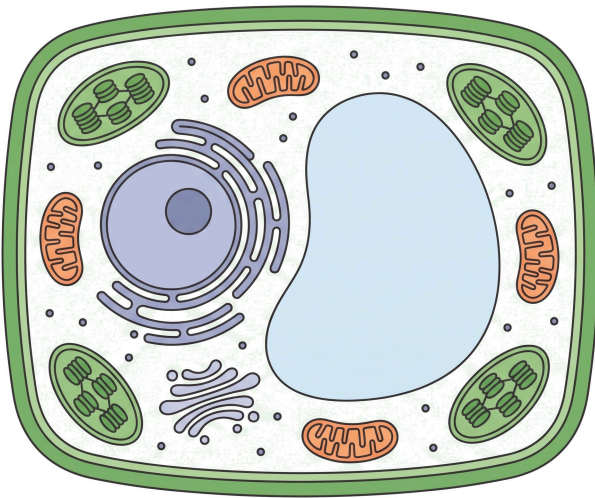


Cells

Plant cells and animal cells



11

printable sheets

24

pages

All

answer keys included

Cells Teaching Pack

Plant cells and animal cells

How to use this pack. The sheets are in a suggested teaching order: show the labeled diagrams, have students label the blank ones, then work through the practice sheets and finish with the quiz. Use them all over a week or pick the ones you need. The answer keys are together at the back.

What is inside

1. Teach

Plant Cell Diagram	3
Animal Cell Diagram	4

2. Label

Blank Plant Cell	5
Blank Animal Cell	6

3. Match

Plant Cell Parts and Their Jobs	7
Animal Cell Parts and Their Jobs	8

4. Read

Inside a Cell	9
---------------	---

5. Compare

Plant Cell or Animal Cell?	11
----------------------------	----

6. Connect

A Cell Is Like a City	12
-----------------------	----

7. Review

Cell Vocabulary Crossword	13
---------------------------	----

8. Check

Cells Quiz	14
------------	----

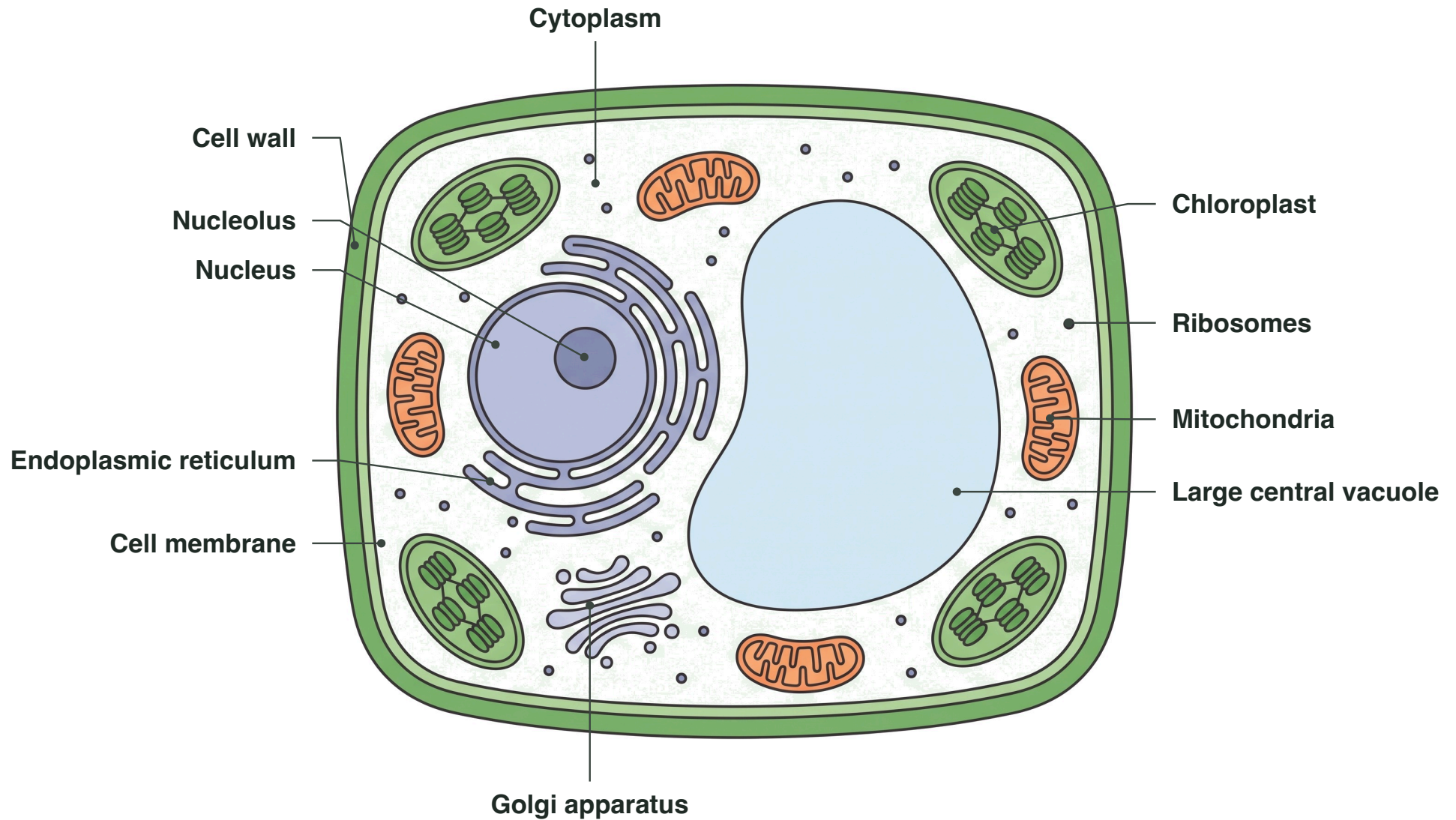
Answer keys

Every answer key, in the same order	16
-------------------------------------	----

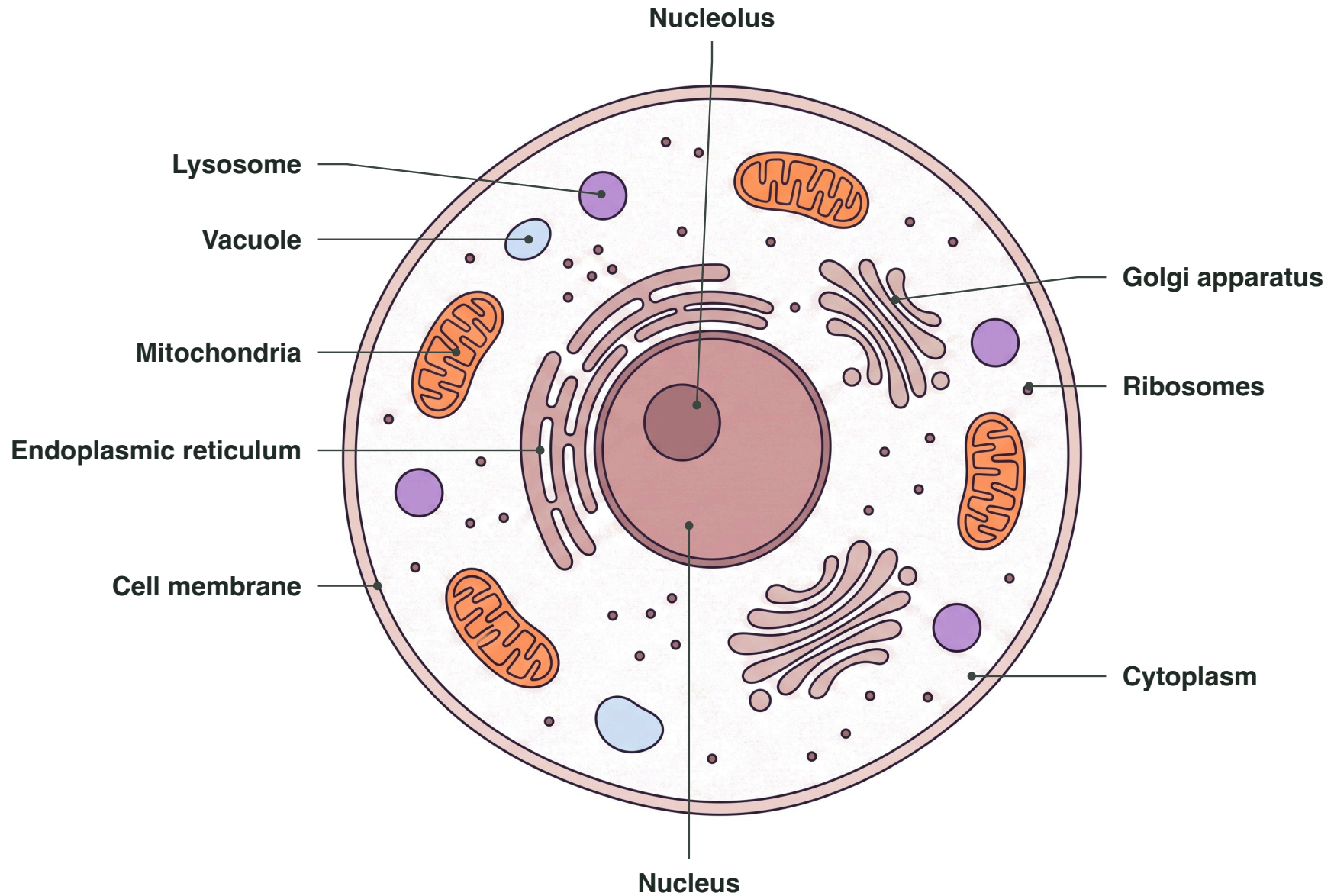
More free teaching packs. The Microscope, Mitosis, DNA and more at printablescholar.com/teaching-packs/

Free for classroom and home use. Print as many copies as you need for your own students. Please do not resell or repost the file. More free printables at printablescholar.com.

Plant Cell



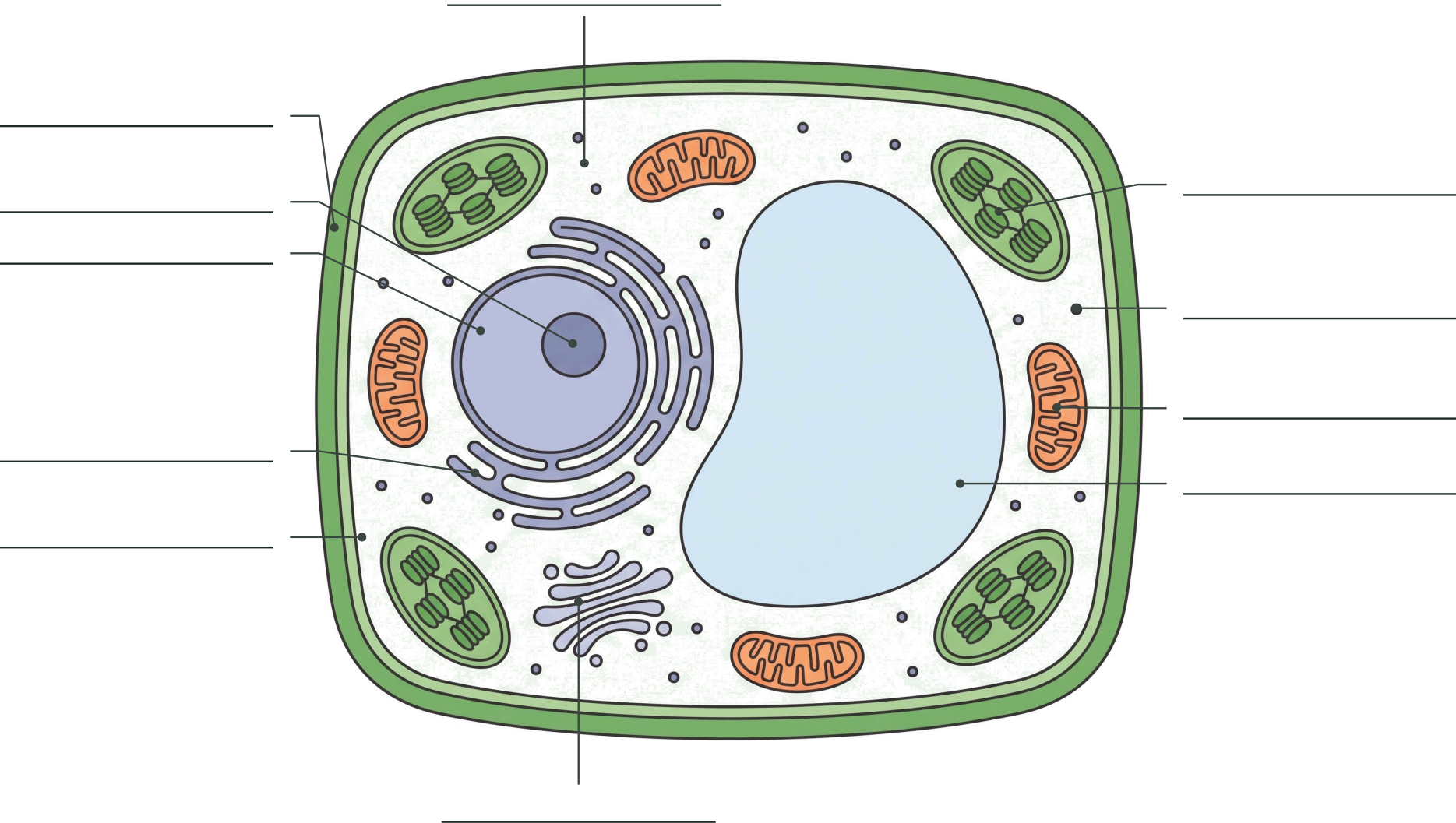
Animal Cell



Plant Cell

Name: _____

Write the name of each part on its line. Use the word bank.



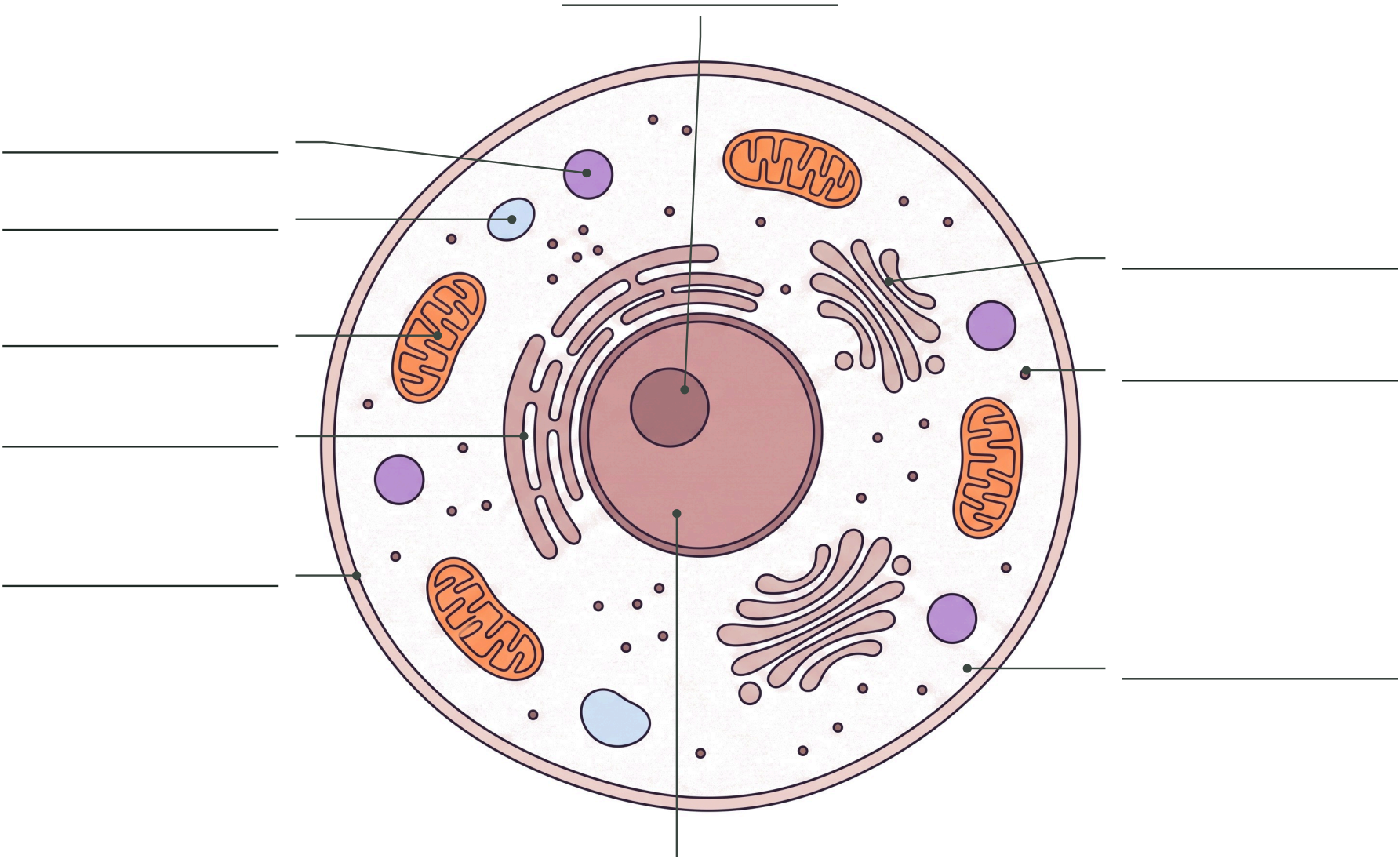
Word bank

- | | | | | | |
|-----------------------|--------------|-------------|-----------|-----------------------|-----------------|
| Cell membrane | Cell wall | Chloroplast | Cytoplasm | Endoplasmic reticulum | Golgi apparatus |
| Large central vacuole | Mitochondria | Nucleolus | Nucleus | Ribosomes | |

Animal Cell

Name: _____

Write the name of each part on its line. Use the word bank.



- Word bank
- Cell membrane
- Cytoplasm
- Endoplasmic reticulum
- Golgi apparatus
- Lysosome
- Mitochondria
- Nucleolus
- Nucleus
- Ribosomes
- Vacuole

Plant Cell Parts and Their Jobs

Use the labeled plant cell diagram to help you.

Part A. Write the part that does each job.

Word bank

Cell membrane

Cell wall

Chloroplast

Cytoplasm

Endoplasmic reticulum

Golgi apparatus

Large central vacuole

Mitochondria

Nucleolus

Nucleus

Ribosomes

1. The control center of the cell. It holds the DNA. _____
2. The stiff outer layer that gives the cell its boxy shape. _____
3. A green part that uses sunlight to make food. _____
4. The jelly-like fluid that fills the cell. _____
5. They release energy from food so the cell can use it. _____
6. The big sac in the middle of the cell that stores water. _____
7. The thin layer just inside the cell wall. It controls what goes in and out. _____
8. Tiny parts that build proteins. _____
9. A folded network that moves proteins through the cell. _____
10. It packages proteins and ships them to where they are needed. _____
11. The small, dense spot inside the nucleus. It makes ribosomes. _____

Part B. Answer the questions.

1. Which two parts give a plant cell its shape and help the plant stand up straight?

2. Why are most plant cells green?

3. What would happen to a plant cell that had no chloroplasts?

Animal Cell Parts and Their Jobs

Use the labeled animal cell diagram to help you.

Part A. Write the part that does each job.

Word bank

Cell membrane

Cytoplasm

Endoplasmic reticulum

Golgi apparatus

Lysosome

Mitochondria

Nucleolus

Nucleus

Ribosomes

Vacuole

1. They release energy from food so the cell can use it. _____
2. The thin outer layer. It controls what goes in and out. _____
3. The control center of the cell. It holds the DNA. _____
4. It breaks down waste and worn-out cell parts. _____
5. Tiny parts that build proteins. _____
6. The jelly-like fluid that fills the cell. _____
7. A small sac that stores water, food and waste. _____
8. It packages proteins and ships them to where they are needed. _____
9. The small, dense spot inside the nucleus. It makes ribosomes. _____
10. A folded network that moves proteins through the cell. _____

Part B. Answer the questions.

1. Which three parts work together to build a protein and send it out? List them in order.

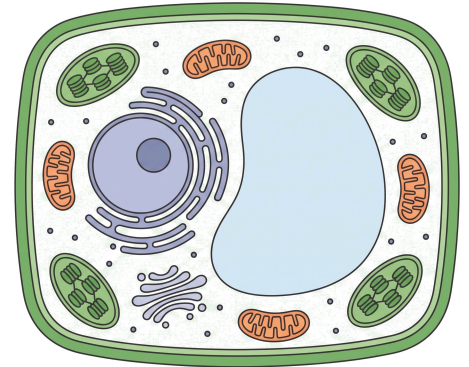
2. An animal cell has no cell wall. What holds the cell together?

3. A muscle cell has many more mitochondria than a skin cell. Why do you think that is?

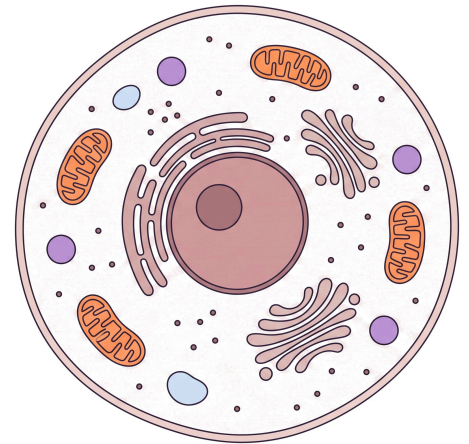
Inside a Cell

Read the text. Then answer the questions on the next page.

- 1 Every living thing is made of cells. Some living things, like bacteria, are just one cell. Your body has trillions of them. Most cells are far too small to see without a microscope, yet each one is as busy as a tiny factory. The working parts inside a cell are called **organelles**, and each organelle has its own job.
- 2 In plant and animal cells, the **nucleus** is the control center. It holds the cell's DNA, the instructions for everything the cell makes and does. Around the nucleus is the **cytoplasm**, a jelly-like fluid that fills the cell and holds the organelles. A thin **cell membrane** wraps the whole cell. It works like a gate. It lets some materials pass in and out and keeps others from crossing.
- 3 Cells need energy. **Mitochondria** release energy from food so the cell can use it, which is why they are called the powerhouses of the cell. Cells also need proteins. Tiny **ribosomes** build them. Next, the **endoplasmic reticulum** moves the proteins through the cell. Then the **Golgi apparatus** packages them and ships them to where they are needed.
- 4 Plant cells have two parts that animal cells do not. A stiff **cell wall** outside the membrane gives a plant cell its boxy shape. Green **chloroplasts** use sunlight to make food. Plant cells also have one large **vacuole** that stores water. When it is full, it presses against the cell wall and helps the plant stand up straight. When a plant runs low on water, its vacuoles shrink and the plant wilts.
- 5 Animal cells have no cell wall, so they have no fixed shape. Many are rounded, and some can change shape. Their vacuoles are small. They have no chloroplasts, so animals cannot make their own food. They have to eat. Plant cells and animal cells look different, but most of their parts are the same.



A plant cell. The green parts are chloroplasts.



An animal cell. It has no cell wall.

Inside a Cell: Questions

Go back to the text to find each answer. The paragraphs are numbered to help you.

1. What is this text mostly about?

- ☐ How to use a microscope
- ☐ The parts of a cell and what each one does
- ☐ Why plants need water
- ☐ How animals find food

2. Which part holds the cell's DNA?

- ☐ The cell membrane
- ☐ The cytoplasm
- ☐ The nucleus
- ☐ The vacuole

3. Why does the text say the cell membrane works like a gate?

- ☐ It is the hardest part of the cell.
- ☐ It controls what goes in and out of the cell.
- ☐ It makes energy for the cell.
- ☐ It holds the instructions for the cell.

4. What do mitochondria do for a cell?

5. Number the steps 1, 2 and 3 to show how a protein is made and sent out (paragraph 3).

- ☐ The Golgi apparatus packages the protein and ships it.
- ☐ Ribosomes build the protein.
- ☐ The endoplasmic reticulum moves the protein through the cell.

6. Why does a plant wilt when it runs low on water?

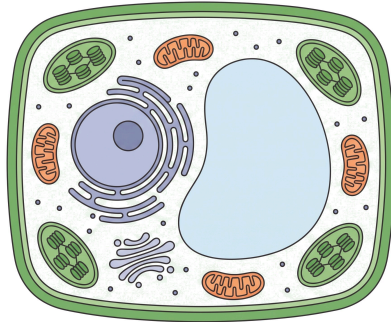
- ☐ Its chloroplasts stop working.
- ☐ Its cell walls fall apart.
- ☐ Its vacuoles shrink and stop pressing on the cell walls.
- ☐ Its nucleus loses its DNA.

7. Name two parts that plant cells have and animal cells do not.

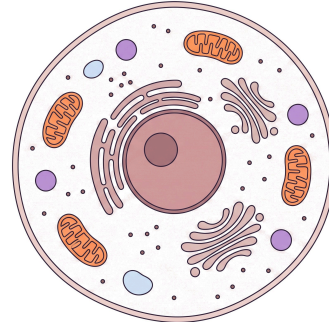
8. Plants do not have to eat, but animals do. Why? Use the word chloroplasts in your answer.

Plant Cell or Animal Cell?

Write each word from the word bank in the part of the diagram where it belongs.



Plant cell

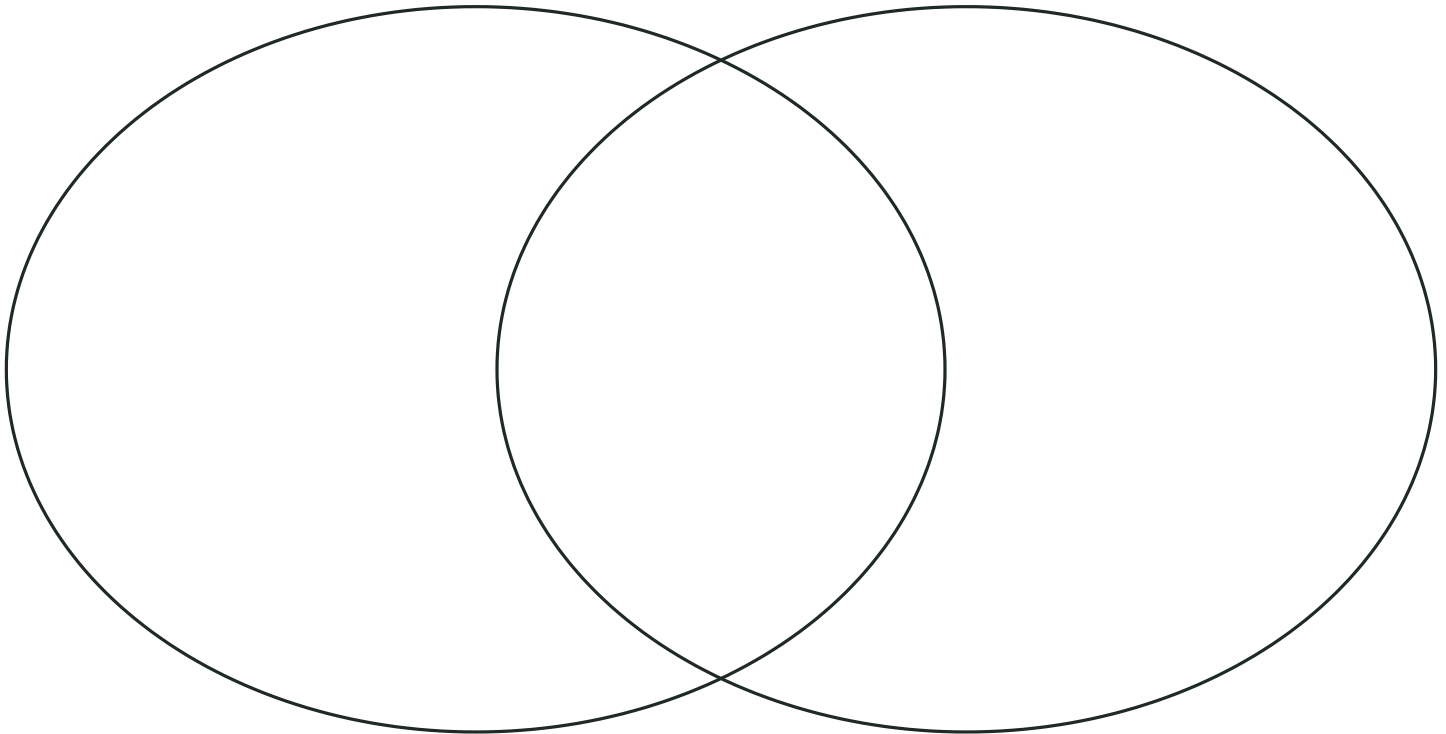


Animal cell

Plant cells only

Both

Animal cells only

**Word bank**

Boxy shape Cell membrane Cell wall Chloroplasts Cytoplasm Golgi apparatus
Makes its own food Mitochondria Must take in food No fixed shape Nucleus
One large vacuole Ribosomes Small vacuoles

A cell has a cell wall and chloroplasts. Is it a plant cell or an animal cell? How do you know?

A Cell Is Like a City

Each place in a city has a job. So does each part of a cell. Write the cell part that does the same job.

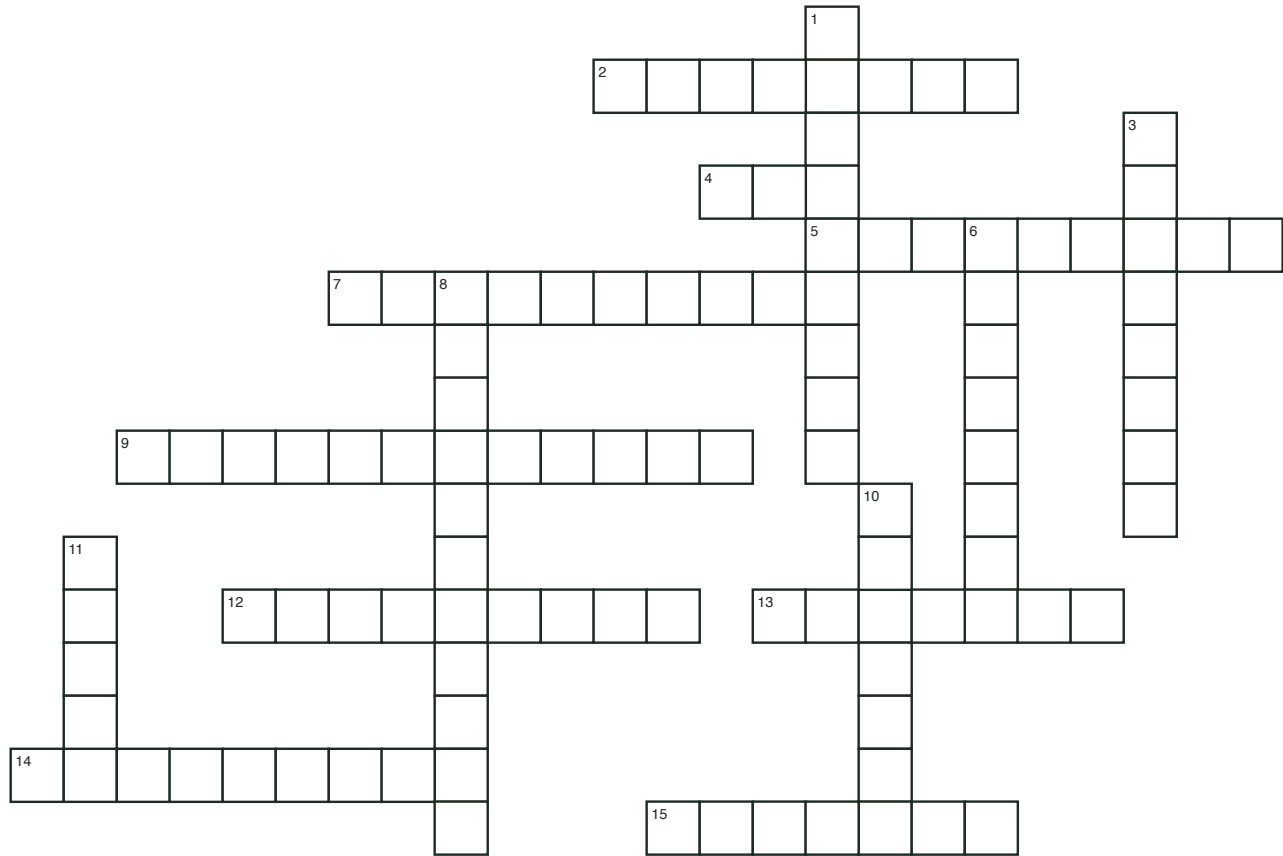
IN THE CITY	ITS JOB	CELL PART
1. City hall	Holds the plans for the city and directs what gets done.	_____
2. Power plants	Supply the energy the city runs on.	_____
3. City border	Checkpoints here control who and what goes in and out.	_____
4. Factories	Build the products the city needs.	_____
5. Roads	Carry products from place to place across the city.	_____
6. Post office	Packages products and ships them to where they are needed.	_____
7. Water tower	Stores water until the city needs it.	_____
8. Recycling center	Breaks down trash and worn-out things.	_____
9. Greenhouse	Uses sunlight to grow food for the city. (Plant cells only.)	_____
10. Stone wall	Stands around the whole city, holds its shape and protects it. (Plant cells only.)	_____
Word bank Cell membrane Cell wall Chloroplast Endoplasmic reticulum Golgi apparatus Lysosome Mitochondria Nucleus Ribosomes Vacuole		

Your turn

A cell is also like a school. Pick one cell part. Which part of a school does the same job? Explain why.

Cell Vocabulary Crossword

Read each clue. Write the answer in the puzzle, one letter in each box. Use the word bank if you get stuck.



ACROSS

2. The thin layer around a cell that controls what goes in and out.
4. The instructions for everything a cell makes and does.
5. The small, dense spot inside the nucleus that makes ribosomes.
7. The tool you need to see most cells.
9. The powerhouses. They release energy from food.
12. The jelly-like fluid that fills the cell.
13. The control center of the cell. It holds the DNA.
14. Tiny parts that build proteins.
15. What ribosomes build.

DOWN

1. Any working part inside a cell.
3. The stiff outer layer of a plant cell (2 words).
6. It breaks down waste and worn-out cell parts.
8. A green part of a plant cell that uses sunlight to make food.
10. A sac that stores water, food and waste.
11. The ____ apparatus packages proteins and ships them.

Word bank

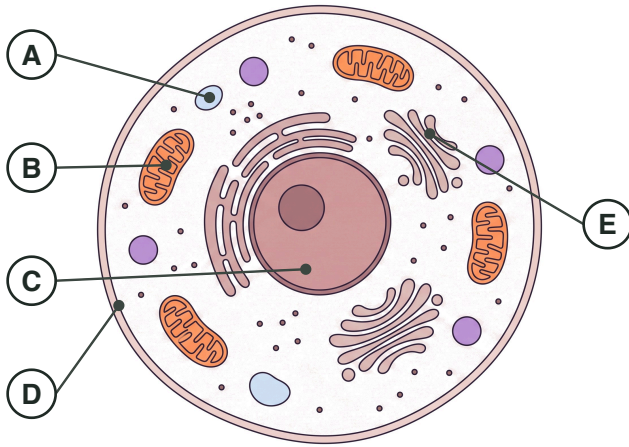
cell wall chloroplast cytoplasm DNA Golgi lysosome membrane
microscope mitochondria nucleolus nucleus organelle protein ribosomes vacuole

Cells Quiz

Score _____ / 13

Show what you know about plant cells and animal cells.

Part A. This is an animal cell. Write the name of each part.



- A _____
- B _____
- C _____
- D _____
- E _____

Cell membrane · Golgi apparatus · Mitochondria · Nucleus ·
Vacuole

Part B. Choose the best answer.

1. Which part is the control center of the cell?

- ☐ Ribosome
- ☐ Nucleus
- ☐ Vacuole
- ☐ Cell wall

2. Which part releases energy from food?

- ☐ Mitochondria
- ☐ Golgi apparatus
- ☐ Chloroplast
- ☐ Nucleolus

3. What do ribosomes do?

- ☐ Store water
- ☐ Make food from sunlight
- ☐ Build proteins
- ☐ Break down waste

4. Which part is found in plant cells but not in animal cells?

- ☐ Cell membrane
- ☐ Cytoplasm
- ☐ Mitochondria
- ☐ Chloroplast

5. What gives a plant cell its boxy shape?

- ☐ The cell wall
- ☐ The nucleus
- ☐ The ribosomes
- ☐ The cytoplasm

6. What is the jelly-like fluid that fills a cell?

- ☐ DNA
- ☐ Cytoplasm
- ☐ Chlorophyll
- ☐ Protein

Part C. Write your answer.

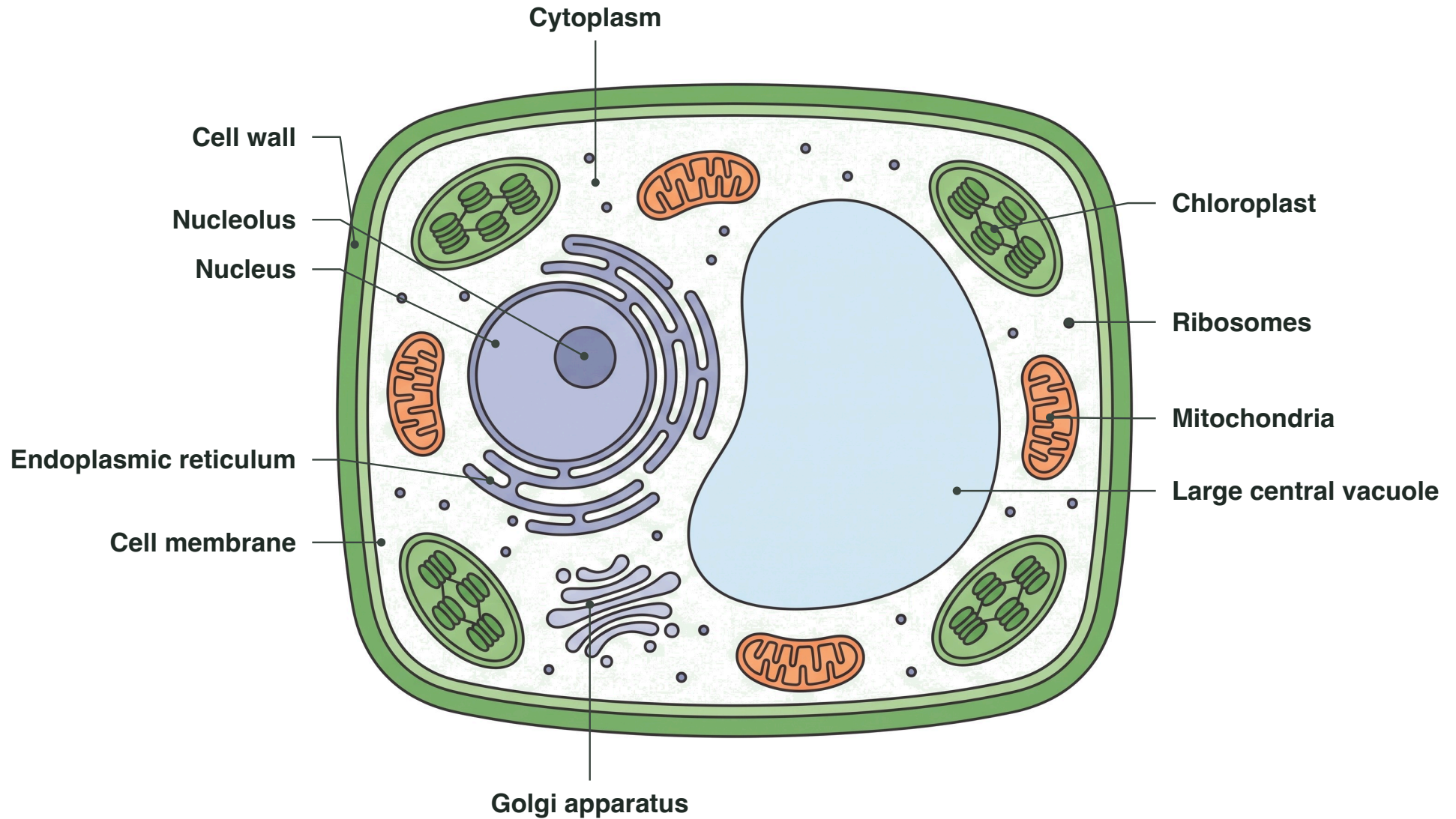
7. Name two ways a plant cell is different from an animal cell.

8. What does the cell membrane do?

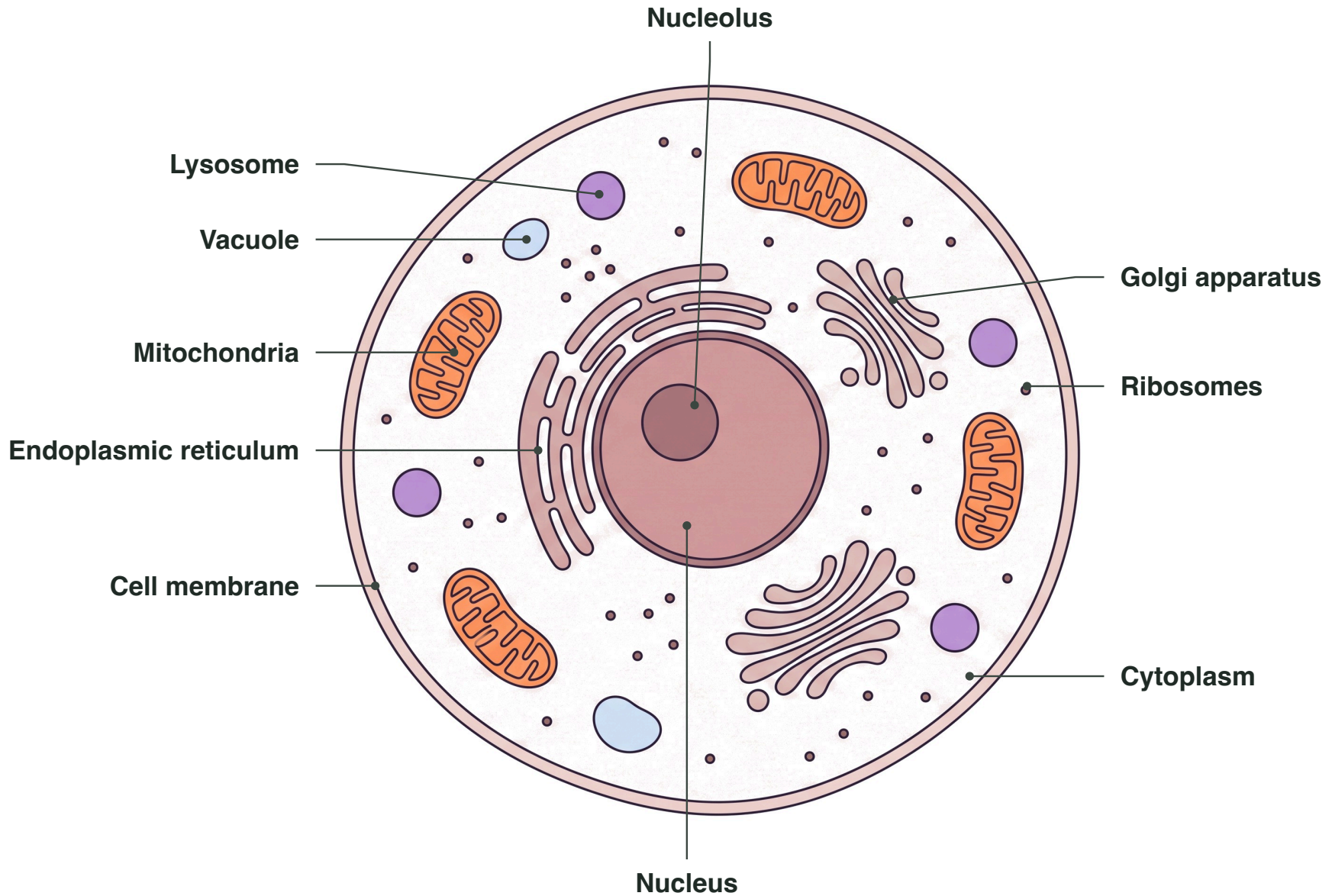
Answer Keys

In the same order as the sheets.

Plant Cell: Answer Key



Animal Cell: Answer Key



Plant Cell Parts and Their Jobs: Answer Key

Answers are in green. Written answers will vary; these are examples.

Part A. Write the part that does each job.

Word bank

Cell membrane

Cell wall

Chloroplast

Cytoplasm

Endoplasmic reticulum

Golgi apparatus

Large central vacuole

Mitochondria

Nucleolus

Nucleus

Ribosomes

- | | |
|--|------------------------------|
| 1. The control center of the cell. It holds the DNA. | Nucleus |
| 2. The stiff outer layer that gives the cell its boxy shape. | Cell wall |
| 3. A green part that uses sunlight to make food. | Chloroplast |
| 4. The jelly-like fluid that fills the cell. | Cytoplasm |
| 5. They release energy from food so the cell can use it. | Mitochondria |
| 6. The big sac in the middle of the cell that stores water. | Large central vacuole |
| 7. The thin layer just inside the cell wall. It controls what goes in and out. | Cell membrane |
| 8. Tiny parts that build proteins. | Ribosomes |
| 9. A folded network that moves proteins through the cell. | Endoplasmic reticulum |
| 10. It packages proteins and ships them to where they are needed. | Golgi apparatus |
| 11. The small, dense spot inside the nucleus. It makes ribosomes. | Nucleolus |

Part B. Answer the questions.

1. Which two parts give a plant cell its shape and help the plant stand up straight?

The cell wall and the large central vacuole.

2. Why are most plant cells green?

They have chloroplasts, which are green.

3. What would happen to a plant cell that had no chloroplasts?

It could not use sunlight to make food, so the cell would run out of food.

Animal Cell Parts and Their Jobs: Answer Key

Answers are in green. Written answers will vary; these are examples.

Part A. Write the part that does each job.

Word bank

Cell membrane Cytoplasm Endoplasmic reticulum Golgi apparatus Lysosome
Mitochondria Nucleolus Nucleus Ribosomes Vacuole

- | | |
|--|------------------------------|
| 1. They release energy from food so the cell can use it. | Mitochondria |
| 2. The thin outer layer. It controls what goes in and out. | Cell membrane |
| 3. The control center of the cell. It holds the DNA. | Nucleus |
| 4. It breaks down waste and worn-out cell parts. | Lysosome |
| 5. Tiny parts that build proteins. | Ribosomes |
| 6. The jelly-like fluid that fills the cell. | Cytoplasm |
| 7. A small sac that stores water, food and waste. | Vacuole |
| 8. It packages proteins and ships them to where they are needed. | Golgi apparatus |
| 9. The small, dense spot inside the nucleus. It makes ribosomes. | Nucleolus |
| 10. A folded network that moves proteins through the cell. | Endoplasmic reticulum |

Part B. Answer the questions.

- Which three parts work together to build a protein and send it out? List them in order.
Ribosomes, then the endoplasmic reticulum, then the Golgi apparatus.
- An animal cell has no cell wall. What holds the cell together?
The cell membrane.
- A muscle cell has many more mitochondria than a skin cell. Why do you think that is?
Muscles do a lot of work, so muscle cells need more energy. Mitochondria release that energy.

Inside a Cell: Answer Key

Answers are in green. Written answers will vary; these are examples.

1. What is this text mostly about?

- ☐ How to use a microscope
- ☒ **The parts of a cell and what each one does**
- ☐ Why plants need water
- ☐ How animals find food

2. Which part holds the cell's DNA?

- ☐ The cell membrane
- ☐ The cytoplasm
- ☒ **The nucleus**
- ☐ The vacuole

3. Why does the text say the cell membrane works like a gate?

- ☐ It is the hardest part of the cell.
- ☒ **It controls what goes in and out of the cell.**
- ☐ It makes energy for the cell.
- ☐ It holds the instructions for the cell.

4. What do mitochondria do for a cell?

They release energy from food so the cell can use it.

5. Number the steps 1, 2 and 3 to show how a protein is made and sent out (paragraph 3).

- 3** The Golgi apparatus packages the protein and ships it.
- 1** Ribosomes build the protein.
- 2** The endoplasmic reticulum moves the protein through the cell.

6. Why does a plant wilt when it runs low on water?

- ☐ Its chloroplasts stop working.
- ☐ Its cell walls fall apart.
- ☒ **Its vacuoles shrink and stop pressing on the cell walls.**
- ☐ Its nucleus loses its DNA.

7. Name two parts that plant cells have and animal cells do not.

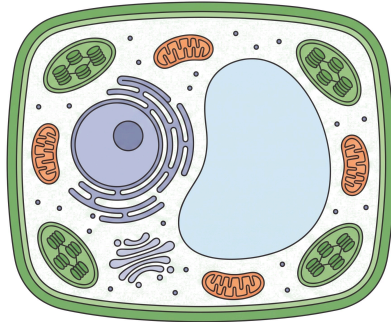
A cell wall and chloroplasts. (Also accept one large vacuole. Animal cells have only small vacuoles.)

8. Plants do not have to eat, but animals do. Why? Use the word chloroplasts in your answer.

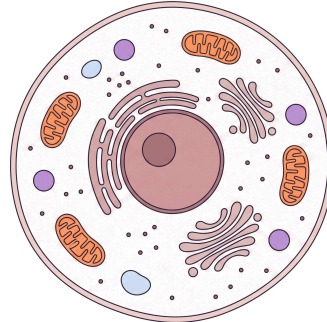
Animal cells have no chloroplasts, so they cannot use sunlight to make their own food. Plant cells can.

Plant Cell or Animal Cell?: Answer Key

Answers are in green.



Plant cell

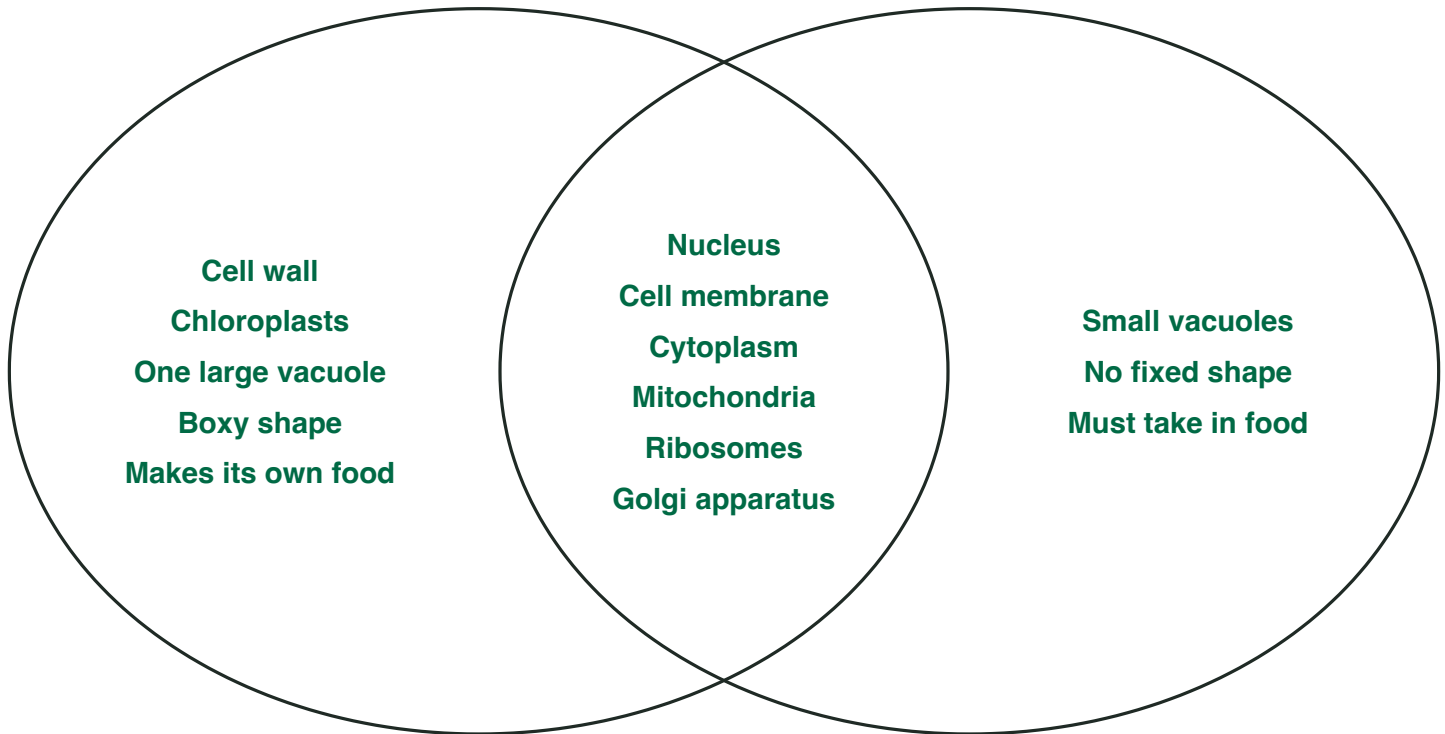


Animal cell

Plant cells only

Both

Animal cells only



Word bank

Boxy shape Cell membrane Cell wall Chloroplasts Cytoplasm Golgi apparatus
 Makes its own food Mitochondria Must take in food No fixed shape Nucleus
 One large vacuole Ribosomes Small vacuoles

A cell has a cell wall and chloroplasts. Is it a plant cell or an animal cell? How do you know?

It is a plant cell. Plant cells have a cell wall and chloroplasts. Animal cells have neither.

A Cell Is Like a City: Answer Key

Answers are in green. The last answer will vary; one example is given.

IN THE CITY	ITS JOB	CELL PART
1. City hall	Holds the plans for the city and directs what gets done.	Nucleus
2. Power plants	Supply the energy the city runs on.	Mitochondria
3. City border	Checkpoints here control who and what goes in and out.	Cell membrane
4. Factories	Build the products the city needs.	Ribosomes
5. Roads	Carry products from place to place across the city.	Endoplasmic reticulum
6. Post office	Packages products and ships them to where they are needed.	Golgi apparatus
7. Water tower	Stores water until the city needs it.	Vacuole
8. Recycling center	Breaks down trash and worn-out things.	Lysosome
9. Greenhouse	Uses sunlight to grow food for the city. (Plant cells only.)	Chloroplast
10. Stone wall	Stands around the whole city, holds its shape and protects it. (Plant cells only.)	Cell wall
Word bank Cell membrane Cell wall Chloroplast Endoplasmic reticulum Golgi apparatus Lysosome Mitochondria Nucleus Ribosomes Vacuole		

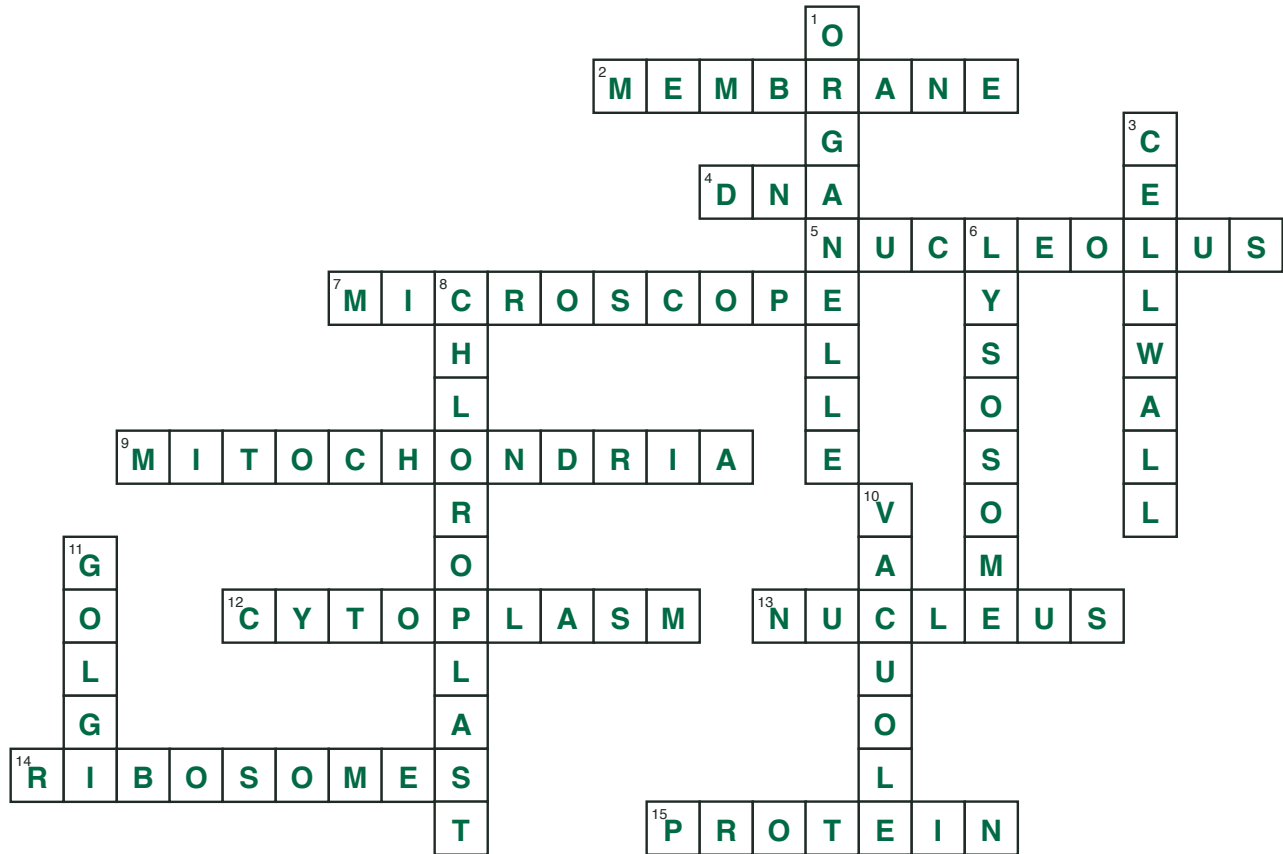
Your turn

A cell is also like a school. Pick one cell part. Which part of a school does the same job? Explain why.

Answers will vary. Example: The nucleus is like the principal's office, because that is where the plans for the whole school are made.

Cell Vocabulary Crossword: Answer Key

Answers are in green.



ACROSS

2. The thin layer around a cell that controls what goes in and out.
4. The instructions for everything a cell makes and does.
5. The small, dense spot inside the nucleus that makes ribosomes.
7. The tool you need to see most cells.
9. The powerhouses. They release energy from food.
12. The jelly-like fluid that fills the cell.
13. The control center of the cell. It holds the DNA.
14. Tiny parts that build proteins.
15. What ribosomes build.

DOWN

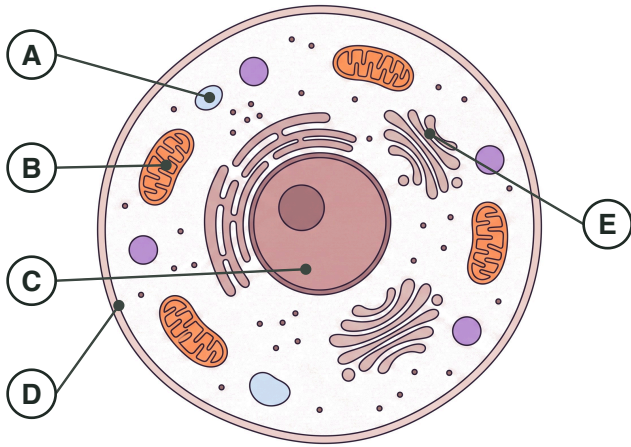
1. Any working part inside a cell.
3. The stiff outer layer of a plant cell (2 words).
6. It breaks down waste and worn-out cell parts.
8. A green part of a plant cell that uses sunlight to make food.
10. A sac that stores water, food and waste.
11. The _____ apparatus packages proteins and ships them.

Word bank cell wall chloroplast cytoplasm DNA Golgi lysosome membrane
microscope mitochondria nucleolus nucleus organelle protein ribosomes vacuole

Cells Quiz: Answer Key

Answers are in green. Written answers will vary; these are examples.

Part A. This is an animal cell. Write the name of each part.



A **Vacuole**

B **Mitochondria**

C **Nucleus**

D **Cell membrane**

E **Golgi apparatus**

Cell membrane · Golgi apparatus · Mitochondria · Nucleus ·
Vacuole

Part B. Choose the best answer.

1. Which part is the control center of the cell?

- ☐ Ribosome
- ☒ **Nucleus**
- ☐ Vacuole
- ☐ Cell wall

2. Which part releases energy from food?

- ☒ **Mitochondria**
- ☐ Golgi apparatus
- ☐ Chloroplast
- ☐ Nucleolus

3. What do ribosomes do?

- ☐ Store water
- ☐ Make food from sunlight
- ☒ **Build proteins**
- ☐ Break down waste

4. Which part is found in plant cells but not in animal cells?

- ☐ Cell membrane
- ☐ Cytoplasm
- ☐ Mitochondria
- ☒ **Chloroplast**

5. What gives a plant cell its boxy shape?

- ☒ **The cell wall**
- ☐ The nucleus
- ☐ The ribosomes
- ☐ The cytoplasm

6. What is the jelly-like fluid that fills a cell?

- ☐ DNA
- ☒ **Cytoplasm**
- ☐ Chlorophyll
- ☐ Protein

Part C. Write your answer.

7. Name two ways a plant cell is different from an animal cell.

Any two: a plant cell has a cell wall, has chloroplasts, has one large vacuole, has a boxy shape, makes its own food.

8. What does the cell membrane do?

It holds the cell together and controls what goes in and out.