

Prokaryotic

Small

Eukaryotic

Larger

nucleus
nucleolus
Golgi
S + R ER
microtubule
microfilament
mitochondria
lysosome
chloroplast
centrioles
plastids
vacuole

cell membrane
cytoplasm
ribosome
chromatin (DNA)

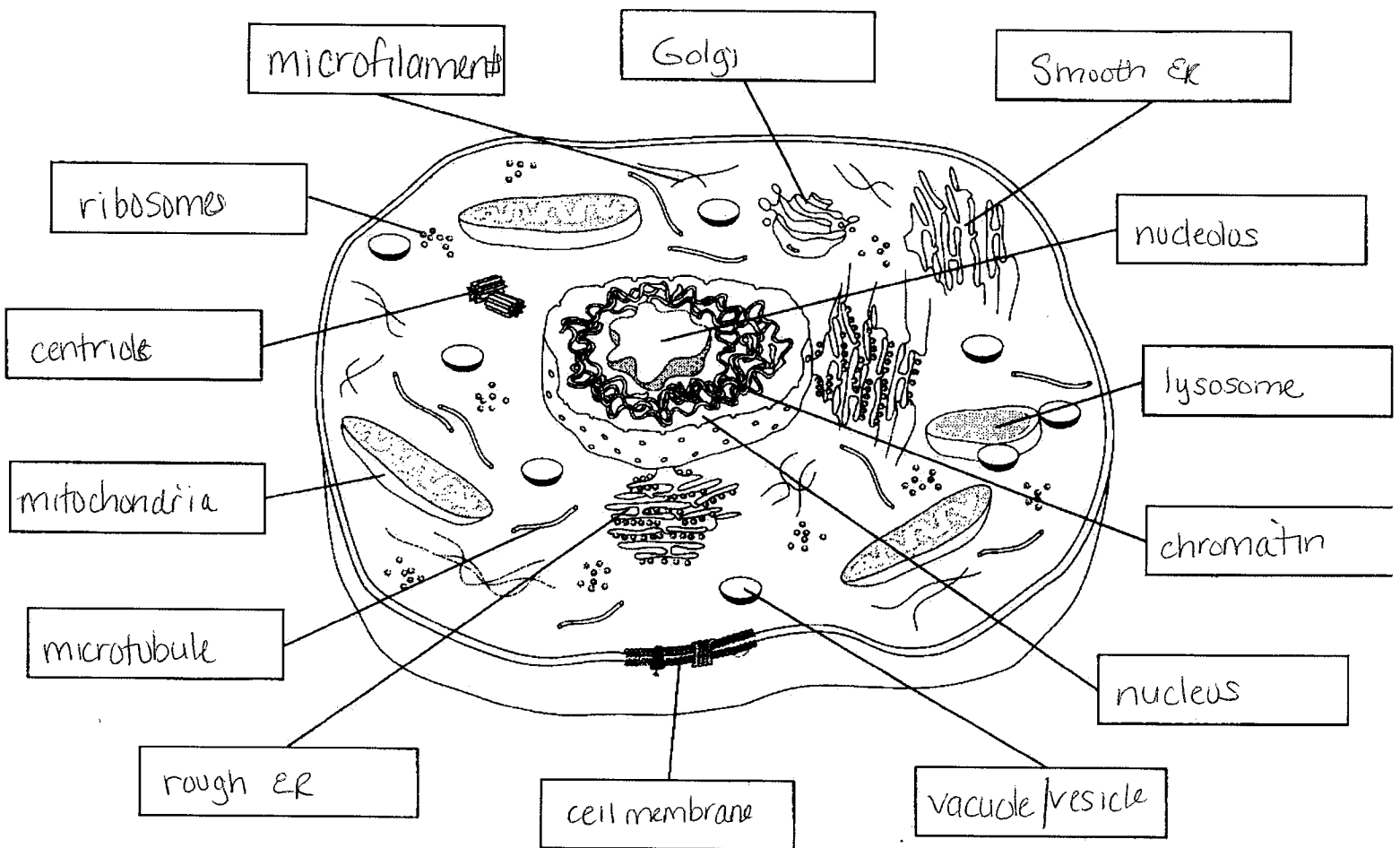
Quiz Cell Structures

Name Key

33 points

Use the words from the word bank to label the cell below. Not all words will be used, but each word will only be used once, if it is used.

cell (plasma) membrane ✓	cell wall	cytoplasm	nucleus ✓	mitochondria ✓
vacuole/vesicle ✓	nucleolus ✓	chloroplast	centrioles ✓	smooth ER ✓
Golgi apparatus ✓	central vacuole	ribosome ✓	rough ER ✓	lysosome ✓
Microtubule ✓	microfilament ✓	plastid	chromatin ✓	



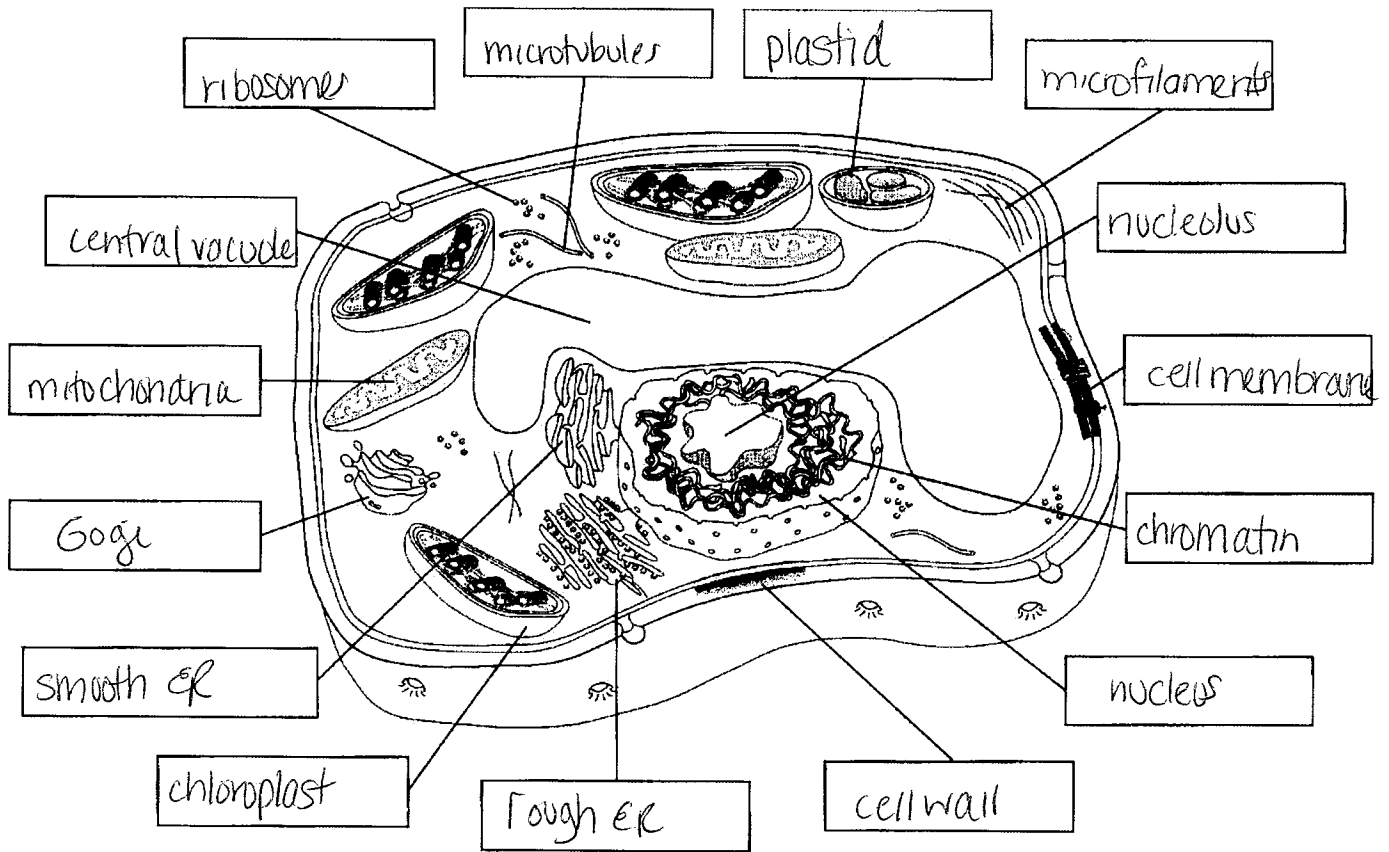
15. Plant or animal cell? animal

16. Give a SPECIFIC reason why you chose the answer to # 15! no cell wall, Chloroplasts has centrioles, lysosomes Irregular shape

Turn over →

Use the words from the word bank to label the cell below. Not all words will be used, but each word will only be used once, if it is used.

cell (plasma) membrane	cell wall	cytoplasm	nucleus	mitochondria
vacuole/vesicle	nucleolus	chloroplast	centrioles	smooth ER
Golgi apparatus	central vacuole	ribosome	rough ER	lysosome
Microtubules	microfilaments	plastid	chromatin	



16. Plant or animal cell? plant

17. Give a SPECIFIC reason why you chose the answer to # 16! cell wall / chloroplast present
no centrioles or lysosomes
boxy shape

Name Key

Quiz--Cell Structures and Functions (15 points)

Match each organelle with its function. Write the letter of your choice on the answer sheet.

1. C

2. A

3. E

4. D

5. B

6. B

7. A

8. C

9. E

10. D

11. D

12. C

13. B

14. E

15. A

13.5-15 - A

12-13 - B

10.5-11.5 - C

9-10 = D

0-8.5 - E

"A Cell Is Like a City"

Name: _____

Key

Period: _____



To get an idea of how a cell works, compare it to a city. Both a city and a cell act as their own environments, with many parts working together. Parts of the cell are like parts of the city. In some ways, cell parts and city parts are alike in the way they work.

Try to figure out which parts of the cell are like which parts of the city. First, write the functions of the cell parts listed below. Then look at the list of parts of a city. Think about how each part of the city works. Finally, next to each cell part write the letter that goes with the part of the city that has the most similar function.

Parts of a City:

- | | |
|-------------------------------------|---------------------------------------|
| A. power plant | E. warehouse |
| B. fence around the city with gates | F. city hall with planning department |
| C. storage company | G. factories |
| D. streets | H. wrecking company |

B Cell Membrane controls what enters + leaves cell

F Nucleus control center

D Endoplasmic reticulum transport

G Ribosomes make proteins

E Golgi bodies packages + transport

A Mitochondria make energy ATP

H Lysosomes digestion

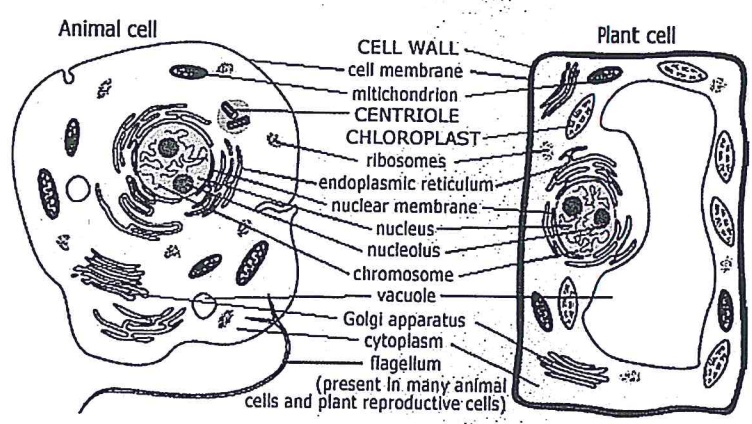
C Vacuoles storage area

Key

Matching: Review Questions

Review Questions: Match the functions with the names of the structures that are listed below. An organelle may be used more than once.

- | | |
|-----------------------------|----------------------------------|
| A. Centrioles | K. Cilia and flagella |
| B. Lysosomes | L. Smooth ER |
| C. Cell membrane | M. Nucleolus |
| D. Mitochondria | N. Vacuoles |
| E. Cell wall | O. Golgi body |
| F. Nucleus | P. Plastids |
| G. Chloroplasts | Q. Microtubules |
| H. Ribosomes | R. Microfilament |
| I. Chromatin | S. Cytoplasm |
| J. Rough ER | |



- D 1. Powerhouse of the cell; site of ATP production
- Q 2. Provide shape and rigidity to the cell
- C 3. Also called the plasma membrane
- B 4. Bags of enzymes used to digest particles/bacteria; "garbage men" of the cell; work with vacuoles.
- F 5. Control center of the cell; contains nucleolus and DNA
- J 6. External surface is studded with ribosomes
- N 7. Formed from a piece of cell membrane breaking loose; stores substances
- G 8. Sites for photosynthesis; found only in plant cells; contains chlorophyll
- K 9. Locomotive structures; made up of microtubules
- H 10. Site of protein synthesis; found in cytoplasm and on rough ER
- A 11. Only found in animal cells; form spindle fibers during cell division
- E 12. Made mostly of cellulose, this encases or surrounds plant cells
- S 13. Watery substance that fills the interior of cells and suspends organelles
- C 14. Semipermeable barrier made of two layers of phospholipids
- N 15. Storage sacs; plant cells have a single large one; animal cells have many smaller ones
- L 16. Membranous structure that synthesizes fats (lipids)
- J 17. Membranous structure that synthesizes proteins
- I 18. Uncoiled DNA; coils into chromosomes during cell division
- G 19. Location where photosynthesis occurs
- M 20. Location where ribosomes are formed
- Q 21. Makes up cilia, flagella, and centrioles
- J 22. Act as a transport system for newly formed proteins
- O 23. Processes, packages, and stores the fats and proteins produced by the ER
- P 24. Structures found only in plant cells; chloroplasts are one type
- R 25. Involved in muscle contraction in larger organisms