

20. What are two differences between a plant and animal cell? **Plant cells have cell walls and chloroplasts, animal cells do not.**
21. Why is it important that the cytoplasm is somewhat watery? **The fluid nature of the cytoplasm allows for wastes, molecules, and organelles to move around in the cytoplasm.**
22. What is the nucleolus and what does it do? **It is an area in the nucleus that manufactures pieces of ribosomes.**
23. What are nuclear pores? **They are small openings in the nuclear membrane that allow molecules to pass into and out of the nucleus.**
24. Do ribosomes have a membrane? **No, they are the only non-membrane-bound organelle in a eukaryotic cell.**
25. What do ribosomes do? **They make proteins using instructions contained in mRNA.**
26. True or False? ER packages and transports proteins after they are made by ribosomes. **True.**
27. What is the name for the series of flattened and stacked tubes with small sacs at the end of them? **The Golgi apparatus.**
28. Where are lysosomes made? **In the Golgi apparatus.**
29. **What kind of membrane surrounds mitochondria? Double-membrane.**
30. **What is the function of the mitochondria? They are where ATP is made.**
31. What is the function of a vacuole? **It is for storage of substances in the cell.**
32. What important photosynthetic molecule do chloroplasts contain? **Chlorophyll.**
33. True or False? ATP is the molecule made during photosynthesis. **False. ATP production is a function of mitochondria.**
34. What is important about the glucose plants make during photosynthesis? **The glucose provides all the available glucose for cellular respiration to occur in animals and other consumers.**
35. True or False? During photosynthesis, six molecules of water and six molecules of carbon dioxide are used to make one molecule of glucose and six molecules of oxygen. **True.**
36. What generally occurs during cellular respiration? **Glucose is broken down by mitochondria. This releases energy, which is captured and used to make many molecules of ATP.**
37. What is important about ATP? **It is the molecule that almost every cell on earth uses for energy.**
38. What is the relationship between cellular respiration and photosynthesis? **Cellular respiration releases carbon dioxide into the air, which plants need to use during photosynthesis. Photosynthesis releases oxygen into the air, which is needed during cellular respiration. Also, photosynthesis produces glucose, which is broken down during cellular respiration to make ATP.**
39. True or False? When oxygen supply is low, cells begin to make ATP through fermentation. **True.**
40. True or False? Fermentation makes more ATP per molecule of glucose than aerobic cellular respiration. **False. Fermentation makes it quicker, but much less of it per molecule of glucose than aerobic respiration.**