**Cell Structure and Function**

**Pages 66-72**

1. Looking at figure 3.1, what is the range in size for an average plant or animal cell? Can these be seen without using a microscope?
2. State the 2 points of the cell theory.
3. Why is it important to maintain a high surface area to volume ratio within a living cell?
4. What happens to a cells surface area and volume as it doubles in size?
5. Why can an unfertilized non-metabolizing frog’s egg be so much larger than a normal animal cell? What must happen once it is fertilized?
6. What is a eukaryotic cell? Give several examples of organisms which are composed of them.
7. Describe the structure of a plasma membrane. What is its main function?
8. What makes up the cytoplasm found inside the cell membrane?
9. Where would one find a cell wall? Describe its composition and function.
10. What is an organelle? Provide 2 examples and their function.
11. Looking at table 3.1 create a table that lists which organelles can be found only in plant cells, only in animal cells or can be found in both.
12. Why is the nucleus important? How is it the same in every cell in your body but at the same time different?
13. Describe the chromatin, chromosomes and nucleoplasm found inside the nucleus.
14. What is the dark region(s) within the nucleus known as? What is produced here and what are they used to form?
15. What separates the nucleus from the rest of the cytoplasm? Why is it covered with nuclear pores?