# ARMENIAN EVANGELICAL CENTRAL HIGH SCHOOL

# **Grade 7 (Biology)**

At the end of grade 7 the student should be able to:

#### Chapter 2

- Recognize plant and animal cells, including their similarities and differences.
- Tell the functions of each part of a cell.
- Use a microscope.
- Describe how cells are organized into tissues, organs, systems and organisms.

#### Chapter 3

- Define diffusion and give some examples.
- Deduce that osmosis is a special kind of diffusion.
- Explain the importance of Osmosis and diffusion to cells.

# Chapter 4

- Tell the importance of water to organisms.
- Explain what carbohydrates, Lipids and Proteins are made up of and their properties.
- Tell the roles of each group of food in living things.
- Test for the presence of Carbohydrates, Lipids and Proteins.
- Tell some sources of foods containing the food groups.
- Calculate the energy value of each food group.

### Chapter 6

- Explain photosynthesis
- Explain the structure of a leaf.
- Tell the ways in which leaves are adapted to photosynthesis.
- Explain the use of glucose by plants.
- Describe the factors that affect the rate of photosynthesis.
- Tell the importance of photosynthesis for all living things.

# **Chapter 7**

- Explain what a balanced diet is.
- Tell the different types of nutrients they should eat, and foods that are good sources of them.
- Difference in energy need in different people.
- Explain about diseases caused by unbalanced diet.
- Tell the importance of digestion of food.
- List the structure of the alimentary canal.
- List and explain the function of each part of the canal.
- Explain how food is assimilated and absorbed.

#### Chapter 9

• Deduce how respiration in cells releases energy from food.

- To write the equations of aerobic and anaerobic respiration.
- Tell the role of yeast in brewing and baking.
- Tell the gas exchange surface and its characteristics.
- Explain gas exchange in human lungs.
- Compare and contrast between inspired air and expired air.
- List in order the respiratory tract.