

# Chapter 5

## Respiration

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students will learn about

- ❖ respiration is a process that releases energy
- ❖ basics of respiration
- ❖ need of respiration
- ❖ aerobic and anaerobic respiration
- ❖ major steps in aerobic respiration
- ❖ respiration in plants
- ❖ differences between respiration and photosynthesis

#### Teaching Aids

**Pictures/charts/models/animation** on need of respiration; aerobic and anaerobic respiration, major steps in aerobic respiration; respiration in plants showing exchange of gases in leaf and roots

#### Teaching Strategy

- ❖ First of all, teacher will summarise the need of energy by living beings and how they get it, as taught in previous class.
- ❖ Now, teacher will define respiration as a process that releases energy.
- ❖ Teacher will discuss basics of respiration.
- ❖ Teacher will discuss the need of respiration.
- ❖ Teacher will define aerobic and anaerobic respiration and will explain the major steps in aerobic respiration.
- ❖ Now, teacher will discuss respiration in plants.
- ❖ With the help of an Activity, teacher will demonstrate that respiration occurs in germinating seeds also.
- ❖ Now, teacher will discuss the differences between respiration and photosynthesis.

- ❖ At last, teacher will sum up the lesson by going through the points given under the head 'Wrapping It Up'.
- ❖ Teacher will finally help students to answer the questions given under the head 'Test Yourself'.

### Boost Up

- ❖ Teacher can make students revise new terms given under the head 'Know These Terms'.
- ❖ Teacher can encourage students to learn the facts given under the head 'Something More'.
- ❖ Teacher can show animations related to the topics taught, if possible.

### Expected Learning Outcomes

The students understand and know:

- ❖ respiration, its basics and its need for living beings
- ❖ aerobic and anaerobic respiration
- ❖ steps of aerobic respiration
- ❖ respiration in plants
- ❖ differences between respiration and photosynthesis

### Evaluative Questions

The teacher should ask the following questions to evaluate the students:

1. What is respiration?
2. How is energy obtained?
3. In which form is energy stored in cells?
4. What is aerobic respiration?
5. What are the end products of aerobic respiration?
6. What is anaerobic respiration?
7. What are the end products of anaerobic respiration?
8. What are the respiratory parts in plants?