

# GALAXY PUBLIC SCHOOL

## Class - 10 (Science)

### SUMMER VACATION HOMEWORK

Dear Students,

Complete the following homework neatly in your notebook. Practice all questions carefully. These questions are based on important concepts and board exam patterns from NCERT.

#### PHYSICS - Chapter 1: Reflection of Light

Answer the following questions:

1. Define reflection of light.
2. State the laws of reflection.
3. Differentiate between regular reflection and diffused reflection.
4. Define principal focus of a concave mirror.
5. What is the radius of curvature of a spherical mirror?
6. Draw ray diagrams for image formation by a concave mirror when the object is placed:
  - (a) Beyond C
  - (b) At C
  - (c) Between F and C
7. Write uses of concave and convex mirrors.
8. What is magnification? Write its formula.
9. State the mirror formula.
10. Solve numerical problems based on mirror formula and magnification.

#### CHEMISTRY - Chapter 1: Chemical Reactions and Equations

Answer the following questions:

1. What is a chemical reaction?
2. Define balanced chemical equation with an example.
3. Why should a chemical equation be balanced?
4. Explain combination reaction with example.
5. Explain decomposition reaction with example.
6. What is displacement reaction?
7. Define double displacement reaction.
8. What is oxidation and reduction?
9. Explain corrosion and rancidity.
10. Balance the following equations:
  - (a)  $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$
  - (b)  $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
  - (c)  $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$

#### BIOLOGY - Chapter 1: Life Processes

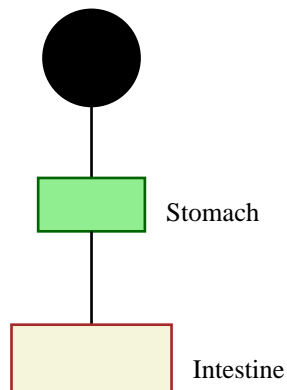
Answer the following questions:

1. What are life processes?
2. Define nutrition. Explain autotrophic nutrition.
3. Explain heterotrophic nutrition with examples.
4. Draw and explain the human digestive system.

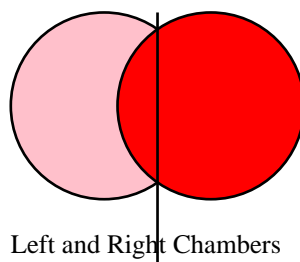
5. Explain the process of photosynthesis.
6. Differentiate between respiration and breathing.
7. Explain aerobic and anaerobic respiration.
8. Describe transportation in human beings.
9. Explain excretion in human beings.
10. Why is the small intestine longer in herbivores?

## IMPORTANT BIOLOGY DIAGRAMS

Human Digestive System



Human Heart



**Instructions:**

- Complete all work neatly.
- Draw diagrams with pencil and label properly.
- Revise NCERT questions regularly.
- Submit homework after summer vacation.