SCIENCE

PHYSICS
Chapter 1: Motion
Objective: To reinforce the understanding of motion, types of motion, and equations of motion.
Instructions:

- - Complete all questions in a separate notebook.
- - Use diagrams wherever necessary.

Section A: Conceptual Understanding
1. Define the following:
   - Distance and Displacement
   - Speed and Velocity
   - Acceleration
2. Differentiate between:
   - Uniform and non-uniform motion (with examples)
   - Distance vs Displacement (with a diagram)

Section B: Numerical Practice
1. A car travels 30 km with a speed of 60 km/h and the next 20 km with a speed of 40 km/h. Find the average speed.
2. A body starts from rest and accelerates uniformly at 2 m/s². Find the distance covered in 5 seconds.
3. A train is moving with a velocity of 72 km/h. It is brought to rest by applying brakes and comes to rest in 10 seconds. Find the acceleration and distance travelled during this time.

Section C: Diagram & Graph
1. Draw and label the distance-time graph for:
   - Uniform motion
   - Non-uniform motion
   - A body at rest
2. Plot a velocity-time graph for a body accelerating uniformly and use the graph to find distance covered.

Section D: Project Work

Make a small project/model or write a 2-page report on:
- "Applications of Motion in Daily Life"
(Use pictures, cut-outs or real-life examples)

Biology

1. To write chapter 1 Activity 5 from your Ashoka book (to prove the occurrence of osmosis through cell membrane of an egg.)

2. Write(on A4 page) and learn to different type of plant and animal tissue.

Chemistry

Chapter 1: Matter in Our Surroundings
Instructions:7
- All questions are to be attempted in a separate notebook.
- Draw diagrams wherever necessary.
- Use your creativity for presentation.
A. Conceptual Questions
1. Define matter. List its physical states with examples.

2. Explain the characteristics of particles of matter.
3. Differentiate between solids, liquids, and gases on the basis of:
   a) Shape
   b) Volume
   c) Compressibility
4. What is diffusion? Give two examples from daily life.
5. Describe the interconversion of states of matter with suitable diagrams.

B. Activity-based Work
1. Prepare a chart showing "States of Matter" and their properties.

Or

2. Perform the following at home (under adult supervision) and write observations:
   a) Dissolving salt/sugar in water – explain diffusion.
   b) Boiling water and noting temperature when it starts boiling.

C. HOTS (Higher Order Thinking Skills)
1. Why does a gas fill the entire volume of the container?
2. Why do we feel cool when sweat evaporates from our skin?

D. Project Work
Prepare a mini-project (4–5 pages) on "Applications of Changes in States of Matter in Real Life" with pictures and examples.

E- write experiment -1.2 in lab manual

HINDI

प्रश्न-**1**– उपसर्ग तथा प्रत्यय की परिभाषा एवं भेद को परिभाषा और **5-5** उदाहरण के साथ लिखकर याद कीजिए।

प्रश्न-**2**– दो बैलों की कथा साखियां और शब्द इस जल प्रलय में प्रयुक्त होने वाले कठिन शब्दों का अर्थ लिखकर याद कीजिए।

प्रश्न-**3**–विलोम शब्द, पर्यायवाची शब्द ,अनेकार्थी शब्द, एवं पाठ में पढ़े गए मुहावरों के अर्थ याद कीजिए।

प्रश्न-**4**—अवकाश के दिनों में किए गए अपने किसी एक यात्रा का वर्णन **500** शब्दों में कीजिए।

S.ST
1- Submit a project on **"DISASTER MANAGEMENT"**
2- Learn 20 Indian rivers, 28 states, their capitals & chief ministers' name.
3- Learn question answers of these chapters:
   a) The French revolution
   b) b-The story of village Palampur
   c) Democracy in the contemporary World
   d) India size and location
   e) In the map of India fill the capital of following states-
Gujarat, Maharashtra, Telangana, Kerala, Bihar, Assam, Karnataka.

INFORMATION TECHNOLOGY

1. **Advantages & Disadvantages of Verbal, Non-verbal & Visual Communication**
   • *Activity:* Make a 3-column chart showing pros and cons of each type with real-life examples.
2. **Factors Affecting Self-Confidence**
   • *Activity:* Write a short essay (150–200 words) or make a poster showing what increases or decreases confidence. Add pictures or examples.
3. **Self-Management, Grooming, and Self-Confidence**
   • *Activity:* Create a small notebook with definitions and 2–3 tips for each topic. Add a weekly habit tracker and decorate it with quotes or drawings.

ENGLISH GRAMMAR

1. Write a diary everyday-
   - What you did?
   - Write about the food you tasted and prepared.
   - Events and celebration
2. Newspaper Reading:
   - Daily read newspaper and underline the difficult words.
   - Find meaning of the Vocabulary.
   - Write two (2) vocabularies with meaning and sentences.
   - Try and use them to speak out.
3. Write a summary:
   - Read any Novels, Poems you like.

Write a summary about the Novel, Poem you read, based on what you understand. (Only in English)

ENGLISH LITERATURE

1. Write a short paragraph about all the authors from 1st to 3rd Units of Beehive.
2. Read at least one English newspaper daily.
3. Find out poetic devices from first five poems from Beehive.
4. Learn 5 new English words daily from newspapers, books, or your surroundings and make a list of them with examples.

MATHEMATICS

1. Learn the definitions of following Natural number
   a. Whole number
   b. Integers
   c. Rational number
   d. Irrational number
   e. Terminating decimal number
   f. Non terminating but repeating decimal number
   g. Non terminating and non-repeating decimal number

2. Learn the following identities
   a. $(a+b)^2=a^2+2ab+b^2$
   b. $(a-b)^2=a^2-2ab+b^2$
   c. $a^2-b^2=(a+b)(a-b)$
   d. $(x+a)(x+b) = x^2 +(a+b)x+ab$
   e. $(x+y+z)^2=x^2+y^2+z^2+ 2xy+2yz+2zx$
   f. $(x+y)^3=x^3+ y^3+3xy(x+y)$
   g. $(x-y)^3 =x^3-y^3-3xy(x-y)$
   h. $x^3+y^3=(x+y)(x^2-xy+y^2)$
   i. $x^3-y^3=(x-y)(x^2+xy+y^2)$

3. Represent $\sqrt{(8.47)}$ on the real line.
4. Show that the square root of 2 is an irrational number.
5. Factorize:
   a. $x^2+11x+30$
   b. $30x^2+7x-15$
   c. $9x^2+18x+8$
6. Compute the value of $9x^2 + 4y^2$ if $xy=6$ and $3x+2y=12$.
7. Calculate the perimeter of a rectangle whose area is $25x^2 – 35x + 12$.
8. Find the value of $x^3 + y^3 + z^3 – 3xyz$ if $x^2+y^2+z^2=83$ and $x+y+z=15$