SACRED HEART SCHOOL

(Affiliated to CBSE, New Delhi, up to +2 Level)

HOLIDAY HOMEWORK

(2026-27)

CLASS:- VIII

Subject:- Hindi

Q1.)अपने मित्र को ग्रीष्मावकाश का हाल बताते हुए एक पत्र लिखिए।
Q2.)वन-सम्पदा का संरक्षण पर 200 शब्दों में अनुच्छेद लिखें।

Sanskrit

Q1.)अस्मद्, युष्मद् तत् शब्द का पुल्लिंग रूप चार्ट-पेपर लिखें।
Q2.)ग्रीष्म ऋतु की महत्ता पर पाँच वाक्य संस्कृत में लिखे।

English

Q1)Identify two character traits of Tenali Raman and support your answer with incidents from the story.
Q2)If you had to explain honesty or kindness to a child, what practical example would you use?
Q3)Compare bookish knowledge and practical knowledge. Which is more useful according to the lesson(A Concrete Example)?
Q4)Why do people admire Tenali Rama even today? Explain with examples from the chapter.
Q5)Imagine you are describing your classroom. Use at least six determiners in your paragraph.

Mathematics

Do Any Three Projects

Project 1: Budget Planning for a Family

Topic: Percentage, Profit & Loss, Data Handling

Task: Prepare a monthly budget of a family of 4 members.

Include:

- Food expenses
- Electricity bill
- Education expenses
- Transport
- Savings
- Miscellaneous expenses

Activities:

- Make a table of expenses.
- Calculate percentage spent on each category.
- Draw a pie chart or bar graph.
- Suggest ways to increase savings.

Learning Outcome: Understanding percentages and data representation in daily life.

Project 2: Design Your Dream Room

Topic: Mensuration (Area & Perimeter)

Task: Design your dream bedroom on graph paper.

Instructions: Assume dimensions of room (e.g., 5 m × 4 m).Draw doors, windows, bed, table, cupboard etc.
Calculate:

- Floor area
- Perimeter of room
- Area occupied by furniture
- Remaining free space
- Extension Activity: Estimate cost of flooring if tiles cost ₹50 per sq. metre.

Learning Outcome: Application of area and perimeter in construction.

Project 3: Mathematics in Shopping

Topic: Rational Numbers, Discounts, Percentage

Task: Visit a local market or use online shopping catalogues.Choose any 5 products and record:

- Item
- MRP
- Discount
- Selling Price
- Savings

Calculate:

- Discount amount
- Total expenditure
- Total savings

Creative Task: Compare prices from two shops.

Learning Outcome: Understanding profit, loss and discounts.

Project 4: Survey and Data Analysis

Topic: Statistics & Graphs

Task: Conduct a survey among 20 students on one topic:

- Favourite sport
- Daily study hours
- Favourite subject
- Screen time

Activities:

- Collect data.
- Prepare tally marks table.
- Find frequency.
- Draw bar graph.
- Write observations.

Learning Outcome: Data collection and interpretation.

Project 5: Mathematics Around Us

Topic: Geometry in Real Life

Task: Find geometric shapes used around you.

Examples:

- Clock – Circle
- Window – Rectangle
- Dice – Cube
- Water bottle – Cylinder

Paste/draw 10 objects and mention:

- Object
- Shape

Mathematical Concept

Q6.)Write a short note: “Importance of Mathematics in Everyday Life” (100–150 words).

Note:-Submission Guidelines

✔ Use A4 sheets/project file
✔ Include diagrams, graphs and coloured presentation
✔ Mention calculations clearly
✔ Add conclusion for each project
✔ Submit after vacation in a project folder

Science

Chapter: The Invisible Living World Beyond Naked Eyes (Microorganisms)

Important Instructions for Summer Homework:

This assignment contains application-oriented and activity-based questions. Think critically before answering.
Maintain a separate creative Science Journal or scrap file to complete these tasks during the vacation.
Wherever an activity is suggested, perform it under adult supervision and record your real observations carefully.
Submission Date: First week after the school reopens.

Q1.) [Activity-Based Home Experiment] Take two small plastic bowls. In Bowl A, place a piece of dry bread. In Bowl B, sprinkle a few drops of water on a piece of bread to make it moist. Keep both bowls uncovered in a warm, dark corner of your kitchen or storeroom for 4 to 5 days. Observe them daily without touching.

(a) Predict and describe the structural differences in appearance between the bread in Bowl A and Bowl B by day 5.

(b) Identify the group of microorganisms responsible for this change. What specific environmental conditions favored their rapid expansion?

(c) Draw a neat diagram of the microscopic organism observed under a high-magnification lens, labeling its spore-bearing structures. [Activity Task]

Q2.) [Real-World Food Science Application] Sneha's grandmother prepares mango pickle every summer. Sneha notices that her grandmother adds a generous amount of salt and mustard oil to the pickle jar, completely submerging the raw mango pieces.

(a) Explain the biological principle of 'plasmolysis' and how high concentrations of salt protect the pickle from spoiling.

(b) What role does the layer of oil play in preventing the entry and growth of aerobic bacteria and fungi?

(c) If her grandmother forgets to use oil and leaves the jar open in humid weather, what visual and structural signs of will spoilage appear? [Application Task]

Q3.) [Kitchen Bio-Reaction Experiment] Ask an adult to help you mix 100 grams of all-purpose flour (maida) with a spoonful of sugar and half a teaspoon of yeast powder in a bowl. Add a little warm water to knead it into a smooth dough. Place the dough inside a clear glass beaker or measuring cylinder, mark its initial height, and leave it undisturbed for 2 hours.

(a) What physical changes do you observe in the volume and texture of the dough after 2 hours? Explain why.

(b) Name the chemical gas released during this biological process that creates tiny pores in the dough. How is this property exploited in the baking industry?

(c) What would happen to the reaction if you used boiling hot water or ice-cold water instead of warm water to knead the dough? Provide scientific reasons. [Activity Task]

Q4.) [Medical Case Study & Analytical Thinking] A patient visits a doctor complaining of high fever, severe chills, and joint pain. After a blood test, the doctor confirms that the patient is suffering from Malaria and prescribes specific antimalarial medication. The doctor strongly advises the patient's family to ensure there is no stagnant water around their house.

(a) Is the mosquito itself the actual micro-organism causing the disease, or does it play a different ecological role? Clarify the difference between a pathogen and a vector.

(b) Identify the specific genus of the protozoan that causes Malaria and the specific vector that transmits it.

(c) Design a creative poster text or a 3-step action plan that neighbors can implement during summer to break the breeding cycle of this vector. [Application Task]

Q5.)[Agricultural Field Application] A farmer notices that growing wheat or paddy continuously on the same piece of land reduces the crop yield year after year due to soil exhaustion. An agricultural scientist visits the farm and suggests growing leguminous crops, such as peas, beans, or pulses, in the next sowing cycle before returning to cereals.

(a) What invisible biological partners live in the root nodules of leguminous plants? Describe the mutualistic relationship between this organism and the plant.

(b) How does this specific crop rotation practice improve soil fertility naturally without relying on synthetic chemical fertilizers?

(c) Formulate a flowchart detailing how atmospheric nitrogen is converted into usable chemical compounds for plants and eventually returned to the atmosphere. [Application Task]

Q6.) [Food Safety Activity] Check the labels of various packed foods in your kitchen (such as milk packets, fruit juices, jams, and sauces). Look for terms like 'Pasteurized', 'Sodium Benzoate', or 'Citric Acid'.

(a) Describe the exact steps involved in Louis Pasteur's method of pasteurizing milk. Why doesn't this process completely sterilize the milk?

(b) Classify the chemical additives found on food labels into natural and artificial preservatives. How do they inhibit microbial cellular machinery?

(c) Why do milk packets stored in a refrigerator remain fresh for a couple of days, while milk left on the kitchen counter curdles within hours? [Activity Task]

Q7.) [Immunology & Health Literacy] During an orientation program at school, a health professional explains how vaccines protect our communities against viral threats like Polio, Smallpox, or COVID-19. They display a chart showing how a vaccine teaches the human immune system to fight back.

(a) How does a vaccine, which often contains dead or weakened forms of a pathogen, train our white blood cells without making us severely sick?

(b) Explain the role of 'antibodies' and 'memory cells' in providing long-term immunity against future infections.

(c) Who discovered the very first vaccine, and which specific micro-organism-induced disease was it designed to eradicate? [Application Task]

Q8.) [Environmental Ecology & Waste Management] Imagine a world where all microscopic decomposers—bacteria and fungi—suddenly cease to exist for a month. All other living organisms continue their regular life functions.

(a) Analyze and list three catastrophic environmental consequences that would occur in your local park or colony due to the absence of these decomposers.

(b) How do microorganisms act as natural cleaning agents of our planet? Discuss with reference to organic waste degradation.

(c) What is composting? Suggest a simple layout to build an organic compost pit at home using kitchen vegetable scraps during your summer vacation. [Activity Task]

Q9.) [Pharmacology & Antibiotic Resistance] In 1928, Alexander Fleming accidentally left a culture plate of Staphylococcus bacteria uncovered in his lab. He noticed that a specific green mold growing on the plate prevented the bacteria from growing around it.

(a) Identify the mold discovered by Fleming and name the revolutionary wonder-drug extracted from it.

(b) Why are antibiotics highly effective against bacterial infections but completely ineffective against viral diseases like the common cold or influenza?

(c) Why is it dangerous to take under-dosed or unnecessary antibiotics without a certified doctor's prescription? Explain the concept of antibiotic resistance. [Application Task]

Q10.) [The Evolutionary Classification Enigma] Scientists have debated for decades where to place viruses in the tree of life.They are considered an enigma because they do not display typical cellular structures or metabolic functions on their own.

(a) Why are viruses described as borderline entities between the living and the non-living worlds?

(b) What structural changes occur inside a virus particle the moment it comes into physical contact with a suitable host cell?

(c) Name one major disease caused by each of the following micro-organism groups in human beings: Algae, Protozoa, Bacteria, and Fungi. Application task

Social Science

Q1). Suppose a citizen does not vote because they think one vote cannot make a difference. How would you explain the importance of every single vote in a democracy?

Q2.) During an election campaign, a candidate promises gifts or money to voters in exchange for votes. What should responsible citizens do in such a situation and why?

Q3.) Prepare the list of 10 political parties of India with following details. (by making column)

- Name of the party
- Type - (National or Regional)
- Symbol
- Year of the establishment

Q4.) Make a dummy EVM and VVPAT

Instruction - Question no. 1, 2 and 3 to be done in Civics Notebook.

Question no. 4(Project) to be done on chart paper.

Computer

Theme: Exploring the Future (AI) and Building the Web (HTML)

Instructions: Answer all questions neatly in your computer notebook.

- Use diagrams or sketches where necessary to support your answers.

Question 1: The AI Around Us (Artificial Intelligence)

We interact with Artificial Intelligence almost every day without realizing it.

- **Task:** Identify three AI-powered applications or tools that you or your family use at home (e.g., voice assistants, recommendation systems, smart filters).
- For each tool, write a brief explanation (2-3 sentences) on how you think AI makes that specific tool smarter than a regular electronic machine.

Question 2: Human vs. Machine (Artificial Intelligence)

While AI can solve complex problems and analyse data at lightning speed, it still functions very differently from the human brain.

- **Task:** Create a comparative table in your notebook mapping out the differences between Human Intelligence and Artificial Intelligence based on the following three criteria:
    1. Learning ability (How do humans learn vs. how does AI learn?)

2. Emotional Intelligence (Feelings and empathy)
3. Decision-making speed and accuracy

Question 3: Decoding the Blueprint (HTML)

Every webpage on the internet is built using a specific structure. Below is a basic skeleton of an HTML Document:

```
HTML
<!DOCTYPE html>
<html>
<head>
   <title>My Holiday Blog</title>
</head>
<body>
   <h1>Welcome to My Summer Diary!</h1>
   <p>This summer, I am learning how to code websites.</p>
</body>
</html>
```

- Task: Act as a web browser and explain the "role" of the following tags from the code above. What do they tell the browser to do?
  - o <title>
  - o <body>
  - o <h1>
  - o <p>

Question 4: Container vs. Empty Tags (HTML)

In HTML, tags are generally divided into two main categories: Container Tags and Empty Tags.

- Task: Explain the conceptual difference between these two types of tags in your own words. Give two examples of each, and briefly explain why your examples fit into that specific category.

Question 5: Mini-Project – Wireframe to Code (Creative Integration)

Imagine you are designing a simple website about your favourite hobby (e.g., sports, gaming, cooking, or music).

- Task A: Draw a rough sketch (wireframe) on paper showing how you want your webpage to look. It must include a main heading, a short paragraph about your hobby, and a line break separating sections.
- Task B: Write the actual HTML code to match your sketch. Make sure to use the correct tags for the heading, paragraph, and line break (
) that you learned in class.

Tip for Success: Don't just copy-paste definitions! Focus on why these technologies work the way they do. Have fun creating your first web layout!