



DAV PUBLIC SCHOOL, HEHAL, RANCHI
SUMMER HOLIDAYS HOMEWORK (2026-27)

CLASS- X

Instruction-Holiday Homework is mandatory for all the students. It carries a weightage of 5 marks in each subject and will be included in Internal Assessment.

ENGLISH

Based on Unit 1 and 2 of MCB

Prepare any two of the given projects.

1. “My Community Health Survey”

Theme: Public health and observation

Students conduct a small survey of 15–20 people in their locality on:

- Junk food habits
- Screen time
- Exercise patterns
- Sleeping hours

They will:

- Prepare a questionnaire
- Represent findings through charts/photographs
- Write a 300-word analytical report
- Suggest improvements for healthier living

2. “Humans of My Locality”

Theme: Human relationships and empathy

Students interact with:

- A shopkeeper
- A domestic worker
- A security guard
- A grandparent/elderly person

They collect:

- Life experiences

- Challenges
- Inspirational lessons
- Daily routines

Final Submission format:

A scrapbook

Reflection paragraph: "What I learnt from them."

3. Letter to My Future Self'

Theme: Self-growth and aspirations

Students write a detailed letter addressed to themselves 10 years later discussing:

- * Their present habits
- * Dreams and fears
- * What kind of person they wish to become
- Health, career, relationships, and values

Presentation format:

Informal letter (300 words)

SOCIAL SCIENCE

HISTORY/CIVICS

1. Why was the Balkans called the "powder keg of Europe"?
2. Explain the contributions of Giuseppe Mazzini, Count Cavour, and Giuseppe Garibaldi.
3. Explain the process of the unification of Germany under the leadership of Otto von Bismarck. Why is German unification described as a policy of "blood and iron"?
4. What were allegories of nationalism? Explain the significance of Marianne and Germania in developing nationalist feelings in France and Germany.
5. Explain the system of power sharing in Belgium. How did the Belgian government successfully accommodate different linguistic and regional groups?
6. What is federalism? Explain the key features of federalism and discuss how federalism has strengthened democracy in India.

GEOGRAPHY

Answer the following questions

- 1) "Planning is the widely accepted strategy for judicious use of resources." - Explain the statement.
- 2) Describe any two ways to solve the problem of land degradation.
- 3) Describe any two features of 'Arid soils.
- 4) What are the two factors contributed to the formation of the soils?
- 5) What do you mean by sustainable development?
- 6) How is over-irrigation responsible for land degradation in Punjab?
- 7) How is the cement industry responsible for land degradation?
- 8) How are mining activities responsible for land degradation in Jharkhand?
- 9) How is overgrazing responsible for land degradation in Gujarat?
- 10) Why is humus content in laterite soil low?
- 11) Why are resources vital for any developmental activities? Explain.
- 12) How do we conserve resources? Explain any three ways.
- 13) What is the importance of soil as a resource?
- 14) Distinguish between Khadar and Bangar.
- 15) Locate and label the following soil types on the outline political map of India.
 - a) Alluvial soil
 - b) Black soil
 - c) Laterite soil
 - d) Red and Yellow soil
 - e) Arid soil
 - f) Forest and Mountainous soil

General Instructions:

Answer the above question in the fair note book of Geography.

Question No 15 should be done on the outline map of India using colours with index.

ECONOMICS

Q.1 EXPLAIN DIFFERENT PEOPLE HAVE DIFFERENT GOALS .

Q.2 DISTINGUISH BETWEEN METHOD OF COMPARING COUNTRIES BY WORLD BANK METHOD AND UNDP METHOD ?

Q.3.CALCULATE YOUR BMI WITH FORMULA.ALSO MENTION YOUR CATEGORY.

Q.4.LIST SOME OF THE WAYS OF SUSTAINABLE DEVELOPMENT.

Q.5 HOW INDIA WILL BECOME A DEVELOPED COUNTRY? LIST SOME WAYS.

Note- Write in a thin HW copy.

SCIENCE
PHYSICS

1. When an incident ray of light enters a medium from air, it bends towards the normal. Which of the following is true about the refractive index of the medium (n_m) as compared to the refractive index of air (n_a)?

- (a) n_m is equal to n_a
- (b) n_m is less than n_a
- (c) n_m is more than n_a
- (d) The refractive index cannot be compared on the basis of this information.

2. The image below shows a student demonstrating that sunrays concentrated to a point using a spherical mirror can burn a paper as a science project.



(i) What is the term used for the distance between mirror and paper ?

(ii) What kind of image would be formed on the paper?

(iii) The student wants to depict the above experiment as a ray diagram.

Draw a ray diagram.

(iv) If the student wishes to point the mirror to another object so as to obtain a virtual enlarged image, where should be the position of the object with respect to the mirror?

(v) Which of the following is not a common use for the type of spherical mirror used by the student for the experiment above?

- (a) car headlights (b) solar cooker (c) rear – view mirror (d) shaving mirror

3. Smriti is looking at herself in a convex mirror in a science museum, standing 2 m away from the mirror. Her image appears to be around half her actual height. Estimate the focal length of the mirror.

4. The image below shows the refraction of light in three transparent rectangular blocks, X, Y and Z made of different materials when they are placed in air. The angle of incidence is different in each case but the angle of refraction is the same in all three blocks.

CHEMISTRY

Assignment Questions (Chapter – 1) Based on Activities

1. A silvery white metal X is in the form of ribbons. Upon ignition, it burns with a dazzling white flame to form white powder Y. When water is added to the powder Y, it partially dissolves to form a substance Z which is used as an antacid.
 - a) What is metal X?
 - b) Name the white powder Y.
 - c) What is the substance Z?
 - d) Write the chemical reactions that are taking place.

- b) 2. When metal X is treated with a dilute acid Y, then a gas Z is evolved which burns readily by making a little explosion.
 - a) Name any metal which behaves like metal X.
 - b) Name any acid which can behave like acid Y.
 - c) Name the gas Z.
 - d) Is the gas Z lighter than or heavier than air?
 - e) Is the reaction between metal X and the dilute acid Y, exothermic or endothermic?
 - f) By taking a specific example of metal X and dilute acid Y, write a balanced chemical equation for the reaction which takes place. Also indicate the physical states of reactants and products.

3. When the solution of substance X is added to the solution of potassium iodide, then a yellow solid separates out from the solution.
 - a) What do you think substance X is likely to be?
 - b) Name the substance which the yellow solid consists of.
 - c) Which characteristic of chemical reaction is illustrated by this example?
 - d) Write a balanced chemical equation for the reaction which takes place. Mention the physical states of reactants and products involved in the chemical equation.

4. Answer the following questions:
 - a) What is the name and formula of the product formed when water is added to quick lime for whitewash?
 - b) After whitewashing the walls, why do the walls begin to shine after 2-3 days?

5. A green salt on heating decomposes to produce a colorless suffocating gas and leaves behind a reddish-brown residue. Name the salt and write the decomposition reaction.

6. A white salt upon heating decomposes to give brown fumes and a residue is left behind. a) Name the salt. b) Write the equation for the decomposition reaction.

7. In the electrolysis of water:

a) Name the gas collected at the cathode and anode respectively.

b) Why is the volume of one gas collected at one electrode double than that at the other? Name this gas.

c) How will you test the evolved gases?

8. "Barium chloride reacts with aluminum sulphate to give aluminum chloride and a precipitate of barium sulphate"

a) Translate the above statement into a chemical equation.

b) State two types in which this reaction can be classified.

9. A brown substance 'X' on heating in air forms a substance 'Y'. When hydrogen gas is passed over heated 'Y', it again changes back into 'X'.

a) Name the substances X and Y.

b) Name the chemical processes occurring during both the changes.

c) Write the chemical equations.

10. A silver article generally turns black when kept in the open for a few days. The article when rubbed with toothpaste again starts shining.

a) Why do silver articles turn black when kept in the open for a few days? Name the phenomenon involved.

b) Name the black substance formed and give its chemical formula.

BIOLOGY

Q1. A potted plant was placed in darkness for several days. Its leaves turned yellow and plant weakened.

A) Which process was affected?

B) Why did leaves turn yellow?

C) Which pigment is required for photosynthesis?

D) Why is glucose important for plants?

Q2. A student kept germinating seeds in airtight flask connected to lime water.

- A) Which gas is released by seeds?
- B) Why does lime water turn milky?
- C) Which life process is demonstrated?
- D) Why are dry seeds unsuitable?

Q3. Give reason for the following questions:-

- i) Why do aquatic organisms breathe faster than terrestrial organisms?
- ii) Why are walls of left ventricle thicker than right ventricle?
- iii) Why do athletes breathe faster after running?
- iv) Why is diffusion insufficient in multicellular organisms?

Q4. Differentiate between arteries, veins and capillaries.

Q5. Explain double circulation in human beings.

Q6. Explain transportation of water and translocation in plants.

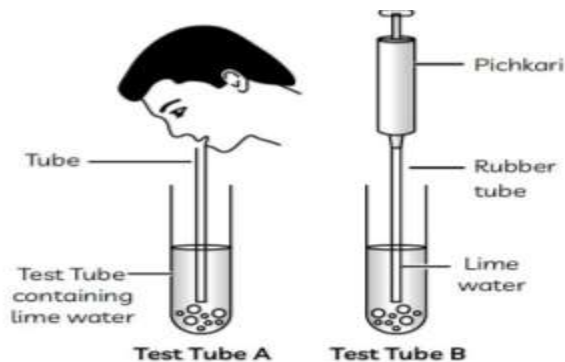
Q7. A) Draw a labelled diagram of the respiratory system of human beings with diaphragm at the end of expiration.

B) List four conditions required for efficient gas exchange in an organism.

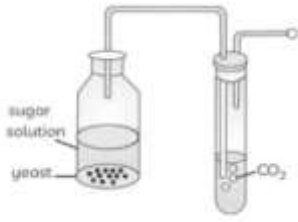
Q8. Explain the role of enzymes in digestion.

Q9. Describe the structure of alveoli and explain gaseous exchange.

Q10. In the first activity, a student Rudra took some freshly prepared lime water in two test tubes marked A and B. He blew air through the lime water in test tube A. He then used a syringe or pichkari and passed air through the fresh lime water in test tube B.



In the second activity, another student Siya took some fruit juice or sugar solution and added some yeast to this. She took this mixture in a test tube fitted with a one-holed cork and fitted the cork with a bent glass tube. She dipped the free end of the glass tube in test tube containing freshly prepared lime water.



(a) In the first activity, what were the observations made by Rudra? What can be interpreted from his observations?

(b) Siya performed the second activity by taking yeast powder and fruit juice, she observed that lime water turned milky after few hours.

(i) What does this activity suggest to you?

(ii) What are the products formed during this activity?

(c) Name the energy currency in living organisms. When is it produced? One application of energy currency produced in the cell.

Note- Make a separate holiday homework copy for Physics, Chemistry and Biology.

IMPORTANT- Think some innovative idea for science model and write in a A4 size sheet with sketch of model.(Model is not required)

SANSKRIT

ग्रीष्मावकाशस्य कृते गृहकार्यम्

संधि-स्वर ,व्यञ्जन,विसर्ग संधिं लिखित्वा स्मरत।

समास-तत्पुरुषविभक्ति द्वन्द्व अव्ययीभावः, घटिका, अव्ययपदानि सर्वेषां प्रश्नानाम् उत्तराणि उत्तरपुस्तिकायां लिखित्वा स्मरत।

HINDI

सभी प्रश्नों को साफ-सुथरी लिखावट में, क्रमवार एवं पूर्ण उत्तर सहित अपनी होम वर्क कॉपी में लिखें।

☞ भाग - A (पाठ्य पुस्तक आधारित)

1. सूर के पद

(क) सूरदास के जीवन एवं साहित्य का संक्षिप्त परिचय लिखिए।

(ख) पाठ में दिए गए किन्हीं दो पदों का भावार्थ अपने शब्दों में लिखिए।

(ग) सूरदास की भक्ति भावना की विशेषताएँ लिखिए।

2. राम-लक्ष्मण-परशुराम संवाद

(क) इस पाठ का संक्षिप्त सार लिखिए।

(ख) परशुराम के क्रोध का कारण क्या था? स्पष्ट कीजिए।

(ग) लक्ष्मण के स्वभाव का वर्णन अपने शब्दों में कीजिए।

✍ भाग - B (व्याकरण एवं लेखन)

3. पत्र लेखन

निम्नलिखित में से कोई एक पत्र लिखिए:

(क) अपने मित्र को ग्रीष्मावकाश बिताने हेतु अपने घर आने का निमंत्रण पत्र।

(ख) विद्यालय के प्रधानाचार्य को अवकाश हेतु प्रार्थना पत्र।

(ग) नगर निगम को अपने क्षेत्र की सफाई व्यवस्था सुधारने हेतु पत्र।

4. वाच्य

(क) वाच्य की परिभाषा एवं उसके प्रकार लिखिए।

(ख) निम्नलिखित वाक्यों का वाच्य परिवर्तन कीजिए (कर्तृवाच्य से कर्मवाच्य या भाववाच्य):

राम पुस्तक पढ़ता है।

सीता ने पत्र लिखा।

शिक्षक बच्चों को पढ़ाते हैं।

5. वाक्य भेद (रचना के आधार पर)

(क) वाक्य के भेदों की परिभाषा उदाहरण सहित लिखिए (सरल, मिश्र, संयुक्त)।

(ख) निम्नलिखित वाक्यों का भेद पहचानिए:

i. वह स्कूल गया और पढ़ाई की।

ii. जब बारिश होती है, तब हम घर में रहते हैं।


iii. राम एक अच्छा छात्र है।

6. विज्ञापन लेखन


निम्नलिखित विषयों पर आकर्षक विज्ञापन तैयार कीजिए (कोई दो):

(क) पंखा का विज्ञापन

(ख) रमेश मिष्ठान भण्डार हेतु विज्ञापन

 अतिरिक्त कार्य (रचनात्मक गतिविधि)

अपनी पसंद के किसी एक विषय पर एक सुंदर पोस्टर बनाइए (जैसे - पर्यावरण संरक्षण, जल बचाओ, शिक्षा का महत्व)।

 निर्देश

कार्य स्वच्छ, स्पष्ट एवं सुंदर लिखावट में करें।

सभी प्रश्नों के उत्तर स्वयं लिखने का प्रयास करें।

गृहकार्य पूर्ण करके विद्यालय खुलने पर अनिवार्य रूप से जमा करें।

MATHS

Chapter 1.

Real Numbers Project Activities

Activity 1: HCF & LCM Investigation

Take 5 pairs of numbers (e.g., 12 & 18, 20 & 30)

Find HCF and LCM of each and verify the relation

Chapter 2

Polynomials Project Activities

Activity 2: Graph of Polynomials

Draw graphs of:

$$y = x$$

$$y = x^2$$

Observe and write:

Shape of graph

Number of zeroes

Activity 3: Finding Zeroes

Take 5 different polynomials

Factorize and find zeroes

Example:

$$x^2 - 9 \rightarrow (x - 3)(x + 3)$$

Activity 4: Relationship Between Zeroes & Coefficients

For quadratic polynomial $ax^2 + bx + c$:

Verify this with at least 3 examples

Chapter 3

Linear Equations in Two Variables

Activity 5: Graph Plotting

Draw graph of:

$$x + y = 4$$

$$2x + y = 6$$

Make table of values

Plot on graph paper

ART AND CRAFT

- 1.Design any innovative artistic work by using waste materials.
- 2.Design a Mandala Art.
3. A painting of any folk art.

Note-Choose any one work .

IT(INFORMATION TECHNOLOGY)

1.)	Uncle SAM is unable to talk and speak during any conversation due to his old age. Also he forgets the person, name of things and others (i) Suggest the effective communication he can use. (ii) Name the type of stress he must be feeling. (iii) What type of communication barrier he must be experiencing.	4
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