



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

CLASS- IX

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

1. Make a project highlighting the decline of any 5 traditional crafts and skills vs industrialization and mass produced goods.
2. Write a letter to your friend expressing your feeling you experienced while teaching your grandmother to use a smartphone.
3. Crafts a notice for your school notice board inviting young minds to get involve in teaching sessions to the old people in a nearby old age home.
4. Compose a similar poem to Bharat our land glorifying our motherland and her distinctive features.

Or

4. Prepare a lap book on rich cultural heritage of Bharat. Use different photographs related to the top.

NOTE- Students will make Home work in the project file.

SOCIAL SCIENCE

(HISTORY/CIVICS)

DO IT IN H/W COPY

1. Explain the relevance of studying Social Science to understand society, environment, economy and governance in our lives.
2. Explain the settled life with development of agriculture and domestication of plants and animals during early humans and beginning of civilization.
3. Explain democratic traditions in India. How they influenced modern democracy?

GEOGRAPHY

Layers of the Earth Model

- Make a 3D model using clay/thermocool:
- Crust, Mantle, Core

- Label and color-code layers.

Or

1.Natural Hazards in India

Types: Floods, earthquakes, cyclones

Causes & effects

Safety measures

Case study of one disaster (e.g., 2013 Uttarakhand floods)and

Case Study Project*

- Kerala floods 2018
- Cyclone Amphan
- Explain:
- Causes
- Effects
- Government response

ECONOMICS

Q.1 DRAW DEMAND AND SUPPLY CURVE.

Q.2. DISTINGUISH BETWEEN PRIMARY, SECONDARY AND TERTIARY SECTOR ON ANY FIVE BASIS.

Q.3 DISTINGUISH BETWEEN ORGANISED AND UNORGANISED SECTOR ON ANY FIVE BASIS.

Q.4 LIST SOME OF THE FEATURES OF INDIAN ECONOMY.

Q.5 HOW INDIA WILL BECOME A DEVELOPED COUNTRY?

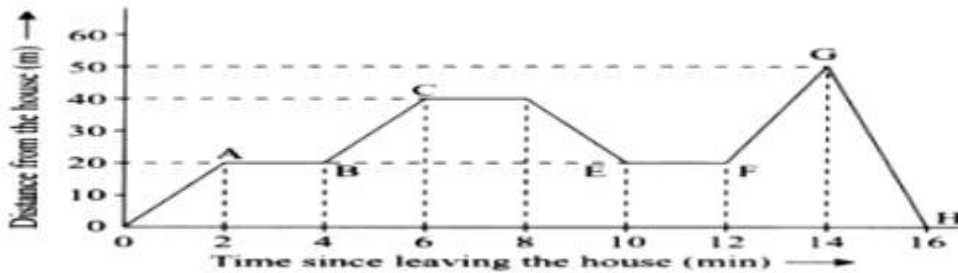
Note- Write the answers in HW copy,

SCIENCE **PHYSICS**

Data Based Integrated Questions

1. The following graph describe the motion of a girl going to meet her friends who stays 50 m from her house.

- (a) How much time she takes to reach her friend's house .
- (b) What is the distance travelled by the girl during the time interval 0 to 12 minutes?
- (c) During which time interval she is moving towards her house ?
- (d) For how many minutes she was at rest, during entire journey?



- (e) Calculate the speed by which she returned home.

2. Questions on Distance-time graph:

- (A) Anil walks to school. He covers 100 m in 2 min, then rests for 1 min, then covers next 100 m in 2 min. Draw his d-t graph.
- (B) A car is parked for 10 s, then moves 50 m in next 10 s with uniform speed. Plot d-t graph.
- (C) Object A moves 5 m every second. Object B moves 10 m in 2 s, then stops for 2 s, then moves 5 m in 1 s.

Draw both d-t graphs on same paper and compare.

3. Questions on Velocity-Time graph:

- (A) A car accelerates from rest to 20 m/s in 5 s, then moves with constant velocity for 10 s, then applies brakes and stops in 5 s. Draw the v-t graph .
- (B) An athlete runs: 0-4s → accelerates to 8 m/s, 4-10s → constant 8 m/s, 10-14s → slows to 0 m/s. Draw v-t graph.
- (C) A ball is thrown upward. Its velocity decreases by 10 m/s every second till it reaches 0, then increases in downward direction.

If initial velocity = 30 m/s, draw v-t graph for first 6 s.

4. Art-Integrated:

(A) "A Day in My Life" – Record your movement for 1 hour(except sleeping time). Note time and distance from your room to kitchen, hall, etc.

Make a d-t graph and present it with drawings.

(B) Make a digital poster showing different types of Motion and submit its colourful hard copy along with Homework graph copy.

Note- Do all graph questions in Graph copy.

CHEMISTRY

The Mystic Forest: Model the Tyndall effect as it occurs in nature, such as light filtering through a foggy forest.

OR

The Sky Painter: (Investigation and Art): Explain why the sky appears blue and sunrises are red using the Tyndall effect. Create an artistic representation showing that shorter blue light waves are scattered more easily, creating the blue sky while longer red light passes through, creating sunsets.

BIOLOGY

- 1. Prepare a "Organelle Analogy " Table.** Compare cell organelles to parts of a city or a factory to show the functions performed by them.[**Depict this with a table and proper diagram**]
- 2. "A Comparative Study of Osmosis in Living vs. Dead Potato Tissue"[Step 1:**
Setup: Create two potato cups (peeled raw potatoes).
Step 2: Variables: Fill the cavity of Potato A with sugar (experimental) and leave Potato B empty (control). Place both in beakers of plain water.
Step 3: The "Kill" Test: Boil a third potato, create a cup (Potato C), fill it with sugar, and place it in water.
Step 4: Record: Mark initial and final water levels using pins. Take photos or draw diagrams.
Step 5: Analysis: Write a report explaining why the water moved (or didn't) in each case.]
Question no. 1&2 should be done in A-4 size sheet and get it spiral binding.[Include FrontPage, Certificate,Acknowledgement,Index,Introduction, Contents, Conclusion, References]
- 3. Write the Monday test -1 questions and answers of both the sets in your Biology classwork notebook.**

NOTE- Do in 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 ,स्वर,व्यञ्जन, विसर्ग संधि लिखित्वा स्मरत।

शब्दरूपाणि-बालक,कवि,साधु,पितृ,राजन्,भवत्,विद्वस्।

लता,मति,नदी,मातृ,धेनु।

तत्,इदम्,किम्,(त्रिषु लिंगेषु) अस्मद्, युष्मद्

धातुरूपाणि-पठ्,गम्,वद्,भू,क्रीडा,नई,दृश्,शक्,अस्,कृ,दा,क्री,श्रुत,पा, (पंचषु लकारेषु)

आत्मनेपदिनः-सेव्,लभ्,रुच्,मुद्,वृध्(लट्,लृट्,लोट् लकारेषु)

उभयपदिनः-कृ,पच्,नी,कृष्,हृ,भज् (लट् लकारे) अष्ट कक्षायां प्रदत्ते संस्कृत पुस्तकात् दृष्ट्वा लिखत।

HINDI

प्रश्न (1) 'भारत की लोक संस्कृति और कला' विषय पर एक परियोजना तैयार करें जिसमें निम्नलिखित विन्दुओं का समावेश हो-

1.उद्देश्य 2.भूमिका 3.किसी एक राज्य की लोक कला का चयन 4.विवरण

5.चुनी गई लोक कला का सुन्दर चित्रण

6.कवर पेज- परियोजना का शीर्षक, छात्र का नाम,कक्षा एवं अनुभाग, विद्यालय का नाम आदि।

प्रश्न (2) 'वृक्ष का महत्त्व' विषय पर एक अनुच्छेद तैयार कीजिए और निम्नलिखित प्रश्नों के उत्तर दीजिए:

(क) पेड़ों का हमारे जीवन में क्या महत्त्व है? अपने शब्दों में बताइए।

(ख) यदि आपके क्षेत्र में पेड़ कम हो जाएँ

तो क्या प्रभाव पड़ेगा?

(ग) वृक्ष मानव से भी श्रेष्ठ हैं, कैसे?

(घ) यदि पेड़ बोल पाते तो मनुष्यों से क्या कहते?

(ङ) पेड़ पर बैठा एक पक्षी आपको क्या संदेश देता है? अपनी कल्पना द्वारा लिखिए।

प्रश्न (3) 'दो बैलों की कथा' पाठ में प्रयुक्त मुहावरों और निपातों को छाँटकर लिखिए और वाक्यों में प्रयोग कीजिए।

नोट:-सभी कार्य साफ़-सुथरे ढंग से एक पतली होमवर्क कॉपी में लिखें।

MATHS

PROJECT 1 : The Real Number Family Tree

TOPIC : Number System

AIM : To show relationship between Natural, Whole, Integers , Rational, Irrational, Real numbers

MATERIALS : A4 chart, colored pens, printouts/cutouts

What to do :

1. Draw a big tree trunk = Real Numbers
2. Main branches = Rational & Irrational
3. Sub – branches : Rational → Integers → Whole → Natural
4. Paste 5 examples on each branch . For irrational , show $\sqrt{2}$, $\sqrt{3}$, π with proof of $\sqrt{2}$ on number line using spiral method
5. Write 2 key properties of each type

To Submit : Chart + 1 page write up : “Where do we use irrational numbers in real life ?”

PROJECT 2 : Square Root Spiral / Pythagoras Garden

TOPIC : Number System – Irrational numbers on number line

AIM : To represent $\sqrt{2}$, $\sqrt{3}$, $\sqrt{4}$, $\sqrt{5}$... up to $\sqrt{10}$ geometrically

MATERIALS : Graph paper, compass , scale, colors

What to do :

1. On graph paper , make square root spiral starting form 1 unit
2. Use Pythagoras theorem for each step : $\sqrt{2}$ from 1-1- $\sqrt{2}$ triangle, then $\sqrt{3}$ from $\sqrt{2}$ -1- $\sqrt{3}$, etc.
3. Make it colorful. Label each length
4. Find real-life use : Spiral found in shells ,sunflower seeds

To Submit :Spiral on A4 + 200 words on “Importance of $\sqrt{2}$ in construction “

PROJECT 3 : Treasure Hunt Map using Coordinate Geometry

TOPIC : Coordinate Geometry

AIM : To apply distance formula in real situation

MATERIALS : Graph sheet, scale, sketch pens

What to do :

1. Draw x – axis & y – axis on graph sheet. Mark your school at (0,0)

2. Place 5 “treasures” at different coordinates . Ex : Library at (3,4), maths lab at (-2,5)
3. Find distance from school to each treasure using $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
4. Find perimeter of triangle formed by any 3 treasures

To Submit : Map + table of all calculations + conclusion

Note- Submit the project in Home Made Paper file (Avoid plastic file).

IT (INFORMATION TECHNOLOGY)

1)	Describe the various types of Non-Verbal Communication.
2)	Explain how the 3P's are helpful in public speaking.
3)	Define self-management skills. Mention any two benefits of self-management.
4)	What is stress? Write any two ways to manage stress.
5)	Explain the importance of time management for students.
6)	Write any four Tips to build self-confident in person.
7)	What is Self-Awareness?
8)	What is Verbal Communication? Mention few of its advantages and disadvantages.
9)	Explain the different elements of communication cycle.

Note: Do in your Homework Copy.

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