



# D Y PATIL INTERNATIONAL SCHOOL, BOKARO

Vidya Yihar Complex, Talgaria Road, Alkusa-827013  
(Affiliated to C.B.S.E, New Delhi, up to +2 level, Affiliation no. 3430753)

## **HOLIDAY HOMEWORK (SUMMER VACATION)**

**SESSION: 2026-27**

| <b><u>GRADE - IX</u></b> |  |
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| <b>SUBJECT</b>           | <b>TOPIC</b>   |
| <b>ENGLISH</b>           | <p>Complete the following holiday homework neatly and creatively in your English notebook/project file.</p> <p><b><u>Literature Section</u></b><br/>Read all the chapters thoroughly and revise the class notes.<br/>Write the summary of each chapter/poem in about 100–120 words.<br/>Learn and write the meanings of 15 new words from each lesson and frame meaningful sentences using them.</p> <p><b>Answer the following creatively:</b><br/>What values did you learn from How I Taught My Grandmother to Read?<br/>Describe the message conveyed in Bharat: Our Land.<br/>Explain the central idea of The Land.<br/>Write a short paragraph on the life and struggles of the pot maker.<br/>Prepare a character sketch of any one character from the prescribed chapters.<br/>Write one page on the topic:<br/>“Importance of Education in Life.”</p> <p><b><u>Grammar Section</u></b><br/>Write and practise 20 sentences using different determiners.<br/>Complete the following activities:<br/>Identify determiners from a newspaper article or magazine and paste them in your notebook.<br/>Write 15 self-made sentences showing correct subject–verb agreement.<br/>Prepare a grammar chart explaining the rules of Subject–Verb Concord with examples.</p> <p><b><u>Writing Section</u></b><br/>Notice Writing<br/>Write any three notices on the following topics:<br/>Inter-school Debate Competition<br/>Lost and Found<br/>Tree Plantation Drive<br/>Summer Camp Registration<br/>Cultural Programme Audition<br/>(Use proper format, heading, date, subject, and signature.)<br/>Creative Activity</p> <p><b><u>Project Work</u></b><br/>Prepare a colourful project/chart on any one topic:<br/>“Indian Villages and Rural Life”<br/>“Importance of Reading Habits”<br/>“Traditional Occupations in India”<br/>Include pictures, quotations, and short descriptions.<br/>Speaking &amp; Reading Task<br/>Read an English newspaper or storybook daily for 15 minutes.<br/>Practise speaking in English with family and friends to improve fluency and confidence.</p> <p>Instructions<br/>Complete the work neatly in your own handwriting.</p> |

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|                       | <p>Use coloured pens/sketches wherever necessary.<br/>         Revise all chapters and grammar topics regularly.<br/>         Submit the holiday homework on the reopening day positively.</p>  |
| <p><b>SCIENCE</b></p> | <p><b>Biology</b><br/>         1. Make a model of:<br/>         Plant Cell or Animal cell<br/>         2. On a large chart paper, draw the cell organelles and write their functions<br/>         3. On A4 size chart paper, describe the “Fluid Mosaic Model” of plasma membrane with the help of a labelled diagram.<br/>         4. Write the difference between prokaryotic cell and eukaryotic cell with the help of a well-labelled diagram.<br/>         5. Make a collage of different types of cells according to their shape.<br/>         6. Write and learn 20 internal questions and their answers from the chapter “Cell”.</p> <p><b>PHYSICS</b><br/>         2. Prepare a report that describes “types of energy”.<br/>         #Include the following:<br/>         Front page that includes school name and address, your topic, your name, submitted and guided by, session etc.<br/>         Acknowledgement<br/>         Index page<br/>         Introduction of energy, types of energy<br/>         Production<br/>         Application of different types of energy in day-to-day life<br/>         Future scope of sustainable energy<br/>         Bibliography</p> <p><b>OR</b><br/>         2. Prepare a report on “Multidisciplinary approach” (choose topic as per your choice)<br/>         *[# see the inclusion part above]*<br/>         (as an example):<br/>         1. Physics, Mathematics, Artificial Intelligence and computing<br/>         2. Physics, mathematics and computer.<br/>         3. Physics with medical instrumentation<br/>         4. Physics, Farm machinery and agriculture<br/>         5. Physics with electromagnetic radiation and its application in 5G Technology.<br/>         And many more</p> <p><b>Note:</b><br/>         1. Do your creativity in report in hand written format only<br/>         2. Report should be written in A4 size paper and should be submitted in stick file.<br/>         3. Revise chapter: “Motion” and focus on graphical presentation.</p> <p><b>Chemistry</b><br/>         1. Prepare a chart showing some common examples of colloids on A4 size paper.<br/>         2. Prepare an attractive project to show the different states of matter and shows their interconversions.<br/>         3. Prepare a static Bohr's atomic model for an element having atomic number belongs to your roll number which shows the electronic arrangement in different orbitals.<br/>         4. Prepare a working model to show the exact atomic number, valency and symbols of atoms( atoms having atomic number from 1 to 20).<br/>         5. Prepare a 3D model shows to clean the muddy water by using earthen pot, some pebbles and sand.<br/>         6. Complete the worksheet of chapter 5 (exploring mixtures and their separation) and learn it properly.</p> |
| <p><b>S.ST.</b></p>   | <p>Students of Class IX are required to prepare an Innovation Project as part of holiday homework in accordance with CBSE experiential and competency-based learning guidelines. The project aims to develop creativity, research skills, critical thinking, and problem-solving abilities by encouraging students to design innovative solutions for common social issues.<br/>         Project Theme:</p>   |

**“Innovative Solutions for Everyday Problems”**

Students will identify a common problem faced in society and develop a creative product, model, design, or idea to solve it.

The project should include:

- A working model or clay model /chart/prototype of the idea.
- Project file explaining :
  - o Problem Identified
  - o Research & Observation
  - o Proposed Solution/Product
  - o Materials or Resources Required
  - o Benefits to Society
  - o Personal Learning & Experience
- Instructions:
  - The work should reflect originality, creativity, and research-based learning.
  - Students may use diagrams, sketches, pictures, surveys, or case studies wherever required.
  - Maintain neatness and proper presentation.
  - Avoid direct copying from the internet.
  - Viva/Presentation to be conducted after submission.

Suggested Areas:

Waste Management, Water Conservation, Road Safety, Women Safety, Pollution Control, Digital Safety, Energy Conservation, Public Cleanliness, Health & Hygiene, Assistance for Elderly or Disabled People.

**MATHS**

1. Find six rational numbers between 3 and 4.
2. Insert 10 rational numbers between  $-\frac{5}{13}$  and  $\frac{6}{13}$
3. Find five rational numbers between  $\frac{3}{5}$  and  $\frac{9}{5}$
4. Express each of the following decimals in the form  $\frac{p}{q}$ , where  $p, q$  are integers and  $q \neq 0$ .
  - (i)  $0.\bar{2}$             (ii)  $0.5\bar{3}$             (iii)  $2.\bar{93}$             (iv)  $18.4\bar{8}$             (v)  $0.003\bar{2}$             (vi)  $32.12\bar{35}$
5. Express  $2.\bar{36} + 0.2\bar{3}$  as a fraction in simplest form.
6. Simplify:
  - (i)  $(3 - \sqrt{11})(3 + \sqrt{11})$
  - (ii)  $(5 + \sqrt{7})(2 + \sqrt{5})$
  - (iii)  $(\sqrt{5} - \sqrt{3})^2$
  - (iv)  $3\sqrt{45} - \sqrt{125} + \sqrt{200} - \sqrt{50}$
  - (v)  $\sqrt{72} + \sqrt{800} - \sqrt{18}$
7. Locate  $\sqrt{3}, \sqrt{5}, \sqrt{10}$  on the number line.
8. Rationalise the denominator of each of the following:
  - (i)  $\frac{1}{\sqrt{5}-2}$             (ii)  $\frac{1}{5+3\sqrt{2}}$             (iii)  $\frac{1+\sqrt{2}}{2-\sqrt{2}}$
9. Find the value of  $a$  and  $b$  if  $\frac{7+3\sqrt{5}}{3+\sqrt{5}} - \frac{7-3\sqrt{5}}{3-\sqrt{5}} = a + \sqrt{5} b$
10. If  $x = 2 - \sqrt{3}$ , find the value of  $(x - \frac{1}{x})^3$
11. If  $x = 9 - 4\sqrt{5}$ , find the value of  $x^2 + \frac{1}{x^2}$
12. Find the points on the y-axis which is equidistant from the points  $A(6,5)$  and  $B(-4,3)$
13. Show that the points  $O(0,0), A(3,\sqrt{3})$  and  $B(3,-\sqrt{3})$  are the vertices of an equilateral triangle.

Show that the points  $A(-3,2), B(-5,-5), C(2,-3)$  and  $D(4,4)$  are the vertices of a rhombus. Find the area of this

**COMPUTER**

- A.) Answer the following Questions
1. State any five principles of data protection bill .
  2. explain the significance of data in the field of AI .
  3. How do you see the future of AI in the real world ?
  4. In what ways is the world Wide Web different from other servers on the Internet ?
  5. What advantages do online sources offer over traditional media ?
  6. Discuss the structure of an e mail message in brief .
  7. Write some tips to build self – confidence .

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|                 | 8. Why is positive thinking so important .<br>10. Discuss some factors influencing communication .   |
| <b>HINDI</b>    | 1 - शब्दालंकार के प्रत्येक भेदों के पाँच - पाँच उदाहरण लिखें ।<br>2 - गत कुछ दिनों से आपके क्षेत्र में अपराध बढ़ने लगे हैं जिससे आप चिंतित हैं ।इन अपराधों की रोकथाम के लिए थाना अध्यक्ष को पत्र लिखिए ।<br>3 - प्रेमचंद की साहित्यिक यात्रा को सचित्र वर्णन करें ।<br>4 - उपसर्ग और प्रत्यय के उदाहरणों को एक सुंदर मॉडल के रूप में प्रस्तुत करें । |
| <b>SANSKRIT</b> | अपठित गद्यांश, संवालेखन, पत्र लेखन, कथापूर्ति, सन्धि, उच्चारणस्थानानि<br>शब्दरूप -मुनि, वाच्, लता शब्द का शब्दरूप कॉपी में लिखें।<br>धातुरूप -लभ् तथा सेव् धातु के धातुरूपों को कॉपी में लिखें।<br>Stick File में वर्णों के उच्चारण स्थान की तालिका बनाकर लगाएँ।   |