

Summer Holiday Home work - VIII

Science

1. Chemistry

Chapter: Particulate Nature of Matter

Activity 1: Observe the States of Matter

- Collect examples of: Solid, Liquid, Gas.
- Make a colourful table: State, Example, Shape and Space Between Particles.
- Draw or paste pictures.

Activity 2: Particle Model Making

- Make a 3D model showing particles in: Solid, Liquid, Gas.
- Use: Thermocol balls, Pulses, Clay, Paper balls
Label each properly.

Activity 3: Matter Around Me Scrapbook

- Collect and paste pictures of: 5 solids, 5 liquids, 5 gases
- Write one property of each.
- Decorate creatively.

2. Physics

Chapter: Electricity, Magnetic and Heating Effect

Activity 4: Draw a Simple Electric Circuit

- Draw and label: Cell, Bulb, Switch, Wires.
- Also explain:
 - “How does the bulb glow?”
- Write: Materials used, Procedure, Observation,
- Uses of electromagnets
- Paste a picture or draw your model.

Activity 5: Heating Effect Experiment

- Observe any electric appliance such as: Iron, Toaster, Heater, Electric kettle.
- Write:
 - How heat is produced
 - Uses of heating effect
 - Safety precautions

Activity 6: Conductors and Insulators Survey

- Find 10 objects from your home and classify them.

1. Object

2. Conductor/Insulator

3. Material

4. Write your conclusion.

Activity 7: Electricity Safety Poster

Prepare a creative poster on:

- “Electrical Safety at Home”

Include:

- Do not touch wires with wet hands
- Avoid overloaded sockets
- Switch off appliances after use
- Use slogans and drawings.

3. Biology

Chapters 1. Exploring the Investigative World of Science

Chapter 2: The Invisible Living World: Beyond Our 'Eyes'

Theme:

“Learn by Exploring, Observing & Creating”

Instructions for Students:

- Complete one task each day.
- Maintain a separate Science Vacation Homework Notebook/File.
- Use colourful headings, diagrams, and creativity.
- Try to observe things around you carefully.
- Parents may guide but students should do the work independently.

Day 1 – Science Around Me

Activity Based Learning

Observe your surroundings and list 10 things related to science used in daily life (fan, refrigerator, soap, mobile, plants etc.).

Writing Work:Write:

- ☒ Name of object
- ☒ Which branch of science it belongs to
- ☒ How it helps us

Competency Developed:Observation and scientific thinking.

Day 2 – Think Like a Scientist

Project Work

Choose any one famous scientist:

- Albert Einstein
- C. V. Raman
- Louis Pasteur
- A. P. J. Abdul Kalam

Task:Prepare a mini project includeing:

- Photo/Picture
- Early life
- Discoveries
- Interesting facts
- Message learned from their life

Competency Developed:

Research and presentation skills.

Day 3 – Scientific Method Activity

Activity

Perform a simple experiment:

Example: “Does sunlight help plants grow faster?”

Write:

1. Aim
2. Materials required
3. Procedure
4. Observation
5. Conclusion

Learning Outcome:

Understanding investigation and experimentation.

Day 4 – Science Vocabulary Challenge

Writing + Learning Work

Write meanings of these words:

- Observation
- Hypothesis
- Experiment
- Microscope
- Microorganism
- Bacteria
- Fungus
- Virus
- Protozoa
- Algae

Extra Task:

Make one sentence from each word.

Competency Developed:

Scientific vocabulary and communication.

Day 5 – Invisible Living World Poster

Art Integrated Project-Make a colourful poster on:

“Microorganisms: Friends and Foes” Include:

- Useful microorganisms

“Microorganisms: Friends and Foes” Include:

- Useful microorganisms
- Harmful microorganisms
- Drawings/labels

Learning Outcome:

Understanding importance of microorganisms.

Day 6 – Kitchen Science Investigation

Curiosity Activity

Observe food items at home.

Task: Find out:

- Why curd is sour
- Why bread becomes fluffy
- Why food spoils in summer quickly

Write answers in your own words.

Competency Developed:

Connecting science with daily life.

Day 7 – Make Your Own Simple Microscope

Model

Hands-on Project

Using waste materials/cardboard/plastic bottle

make a:

“Model of Microscope”

Day 7 – Make Your Own Simple Microscope

Model

Hands-on Project

Using waste materials/cardboard/plastic bottle

make a:

“Model of Microscope”

Also Label:

- Eyepiece
- Lens
- Stand
- Stage

Learning Outcome:

Creativity and model-making skills.

2.Social science

- 1.Make a poster defining at least 10 ways for sustainable development (to save non renewable resources)
- 2.Differentiate between renewable and non-renewable resources with proper examples.
- 3.Make a poster about different monuments (paste photos)built in both Delhi sultanat and Mughal empire (at least 4 for each)and write about them at least 4 lines for each (eg. -who made these , in which year).

3. English

- complete the following work:

- Write and learn 10 idioms.

- Write and learn the Simple Present Tense with 5 examples.

- Write and learn the Present Continuous Tense with 5 examples.

- Write and learn the Present Perfect Continuous Tense with 5 examples.

- *Past Tense

- Write and learn the Simple Past Tense with 5 examples.

- Write and learn the Past Continuous Tense with 5 examples.

- Write and learn the Past Perfect Tense with 5 examples.

- Write and learn the Past Perfect Continuous Tense with 5 examples.

- Write and learn 10 idioms.

- Write and learn 10 new words with meanings.

- Learn and write one lyrical poem.
- Learn and write 40 verbs.
- Write and learn a self-introduction

4.Hindi

पठन कार्य :पढ़ाए गए समस्त पाठों को पढ़ें।

और अभ्यास याद करें।

पाठ : स्वदेश (कविता) -

पाठ दो गौरैया (कहानी) - भीष्म साहनी

पाठ : एक आशीर्वाद (कविता) -

पाठ : हरिद्वार (पत्र) - भारतेन्दु हरिश्चंद्र

लेखन कार्य / स्मरण कार्य

किन्ही चार विषयों पर 200 शब्दों में अनुच्छेद लिखें।

*कोई चार सार्वजनिक सूचना लिखिए।

* चार औपचारिक और चार अनौपचारिक पत्र लिखिए।

रचनात्मक परियोजना

*किन्ही अलंकार पर एक परियोजना कार्य तैयार करना ।

*शब्द भंडार और संधि और उसके भेदो पर परियोजना कार्य

तैयार करे ।

*किसी एक कविता पर सुन्दर सा चार्ट बनाएं ।

5.Maths

WRITTEN WORK (LAB ACTIVITIES)

- 1.Making a parallelogram by paper folding method.
- 2.To verify that the diagonal of a parallelogram divides it into 2 congruent triangles.
- 3.To verify that the diagonals of a parallelogram bisect each other.
- 4.To draw a bar graph of the given data.
- 5.To draw a Pie Chart of the given data.

•WRITTEN WORK

- 1.Do and practice level 1 and level 2 problems of chapter 1- rational numbers of MTG book of foundation.
2. Do and practice level 1 and level 2 problems of chapter 2- Linear equations in one variable of MTG book of foundation.
- 3.Do and practice level 1 and level 2 problems of chapter 3- Understanding quadrilaterals of MTG book of foundation.

•LEARNING WORK

- 1.Learn tables, squares and cubes upto 20.
- 2..Learn all the definitions and formulae from your text book.

•Practical's to be done in Lab manual and other written work to be done in holiday homework notebook.

6. Sanskrit

1. पढ़ाए गए समस्त पाठों को पढ़ें।

और अभ्यास याद करें।

- पाठ : लोकहितं मम करणीयम्
- पाठ : बिलस्य वाणी न कदापि मे श्रुता
- पाठ : डिजीभारतम्
- पाठ : सदैव पुरतो निधेहि चरणम्
- पाठ : कण्टकेनैव कण्टकम्

2. लेखन कार्य / स्मरण कार्य

- कोई चार शब्दरूप लिखें।
- कोई चार धातु रूप लिखिए।
- कोई तीन संस्कृत मे पत्र लिखिए।
- संख्या एक परियोजनकार्य तैयार करना ।
- संधि उसके भेदो पर परियोजना कार्य तैयार करे ।
- सुभाषितानी श्लोक पर सुन्दर सा चार्ट बनाएं

7.IT

ARTIFICIAL INTELLIGENCE (A.I)/COMPUTER -

1. AI TASK- "Know Your Surroundings"

We are surrounded by many devices and machines that make use of Artificial Intelligence. Every machine is operated in a different manner. Find out three such devices in your day to day surroundings. Mention their name, their features and how do you think, they make use of AI. Also try to paste pictures of these devices. Do this work on an A4 size cartridge sheet. You may use more than one sheet, if required. Write your name, class and section at the bottom of the sheet.

2. WRITE A LETTER TO YOUR FUTURE SELF-

“Imagining a world in 2030”

Write a letter to your future self mentioning the things that you think you would probably be doing and experience in daily life in your future, justifying the role of AI in your life. You may download, print and fill the sample from the following link. Alternatively, you may also create your own sheet by taking help from the sample. You may draw or paste relevant pictures also in it to make it more attractive.

<https://drive.google.com/file/d/16HUf625L1NFwBa8CjB0zJ3jfG2Ylg5ym/view?usp=sharing>

3. ITS GAMING TIME- AI enabled games

Play the following AI enabled games on any digital device available.

Note down the date , time , device name and your score vs the machine score in your AI notebook as per the format given below. Play a minimum of 10 rounds for each game.

GAME 1- Rock, Paper and Scissors (based on data)

AI DOMAIN USED- based on data

OBSERVATION – date / time/ device used and score.

GAME 2- Semantris

URL - <https://research.google.com/semantris/>

AI DOMAIN USED- (based on Natural Language Processing - NLP)

OBSERVATION - date / time/ device used and scorem

GAME 3: Quick Draw

URL- <https://quickdraw.withgoogle.com/>

AI DOMAIN USED- (based on Computer Vision -
CV)

OBSERVATION- date / time/ device used and
score.