

**LK SINGHANIA EDUCATION CENTRE  
GOTAN**



**HOLIDAY ASSIGNMENT**

**SESSION : 2026-27**

**CLASS - VIII**

**“Climb every mountain, ford every stream,  
Follow every rainbow, till you find your dream.”**

**Dear Students,**

**Wishing you a happy and blessed summer time!**

**You are the torch bearers of change. Put in your sincere efforts and do some unique and creative work for the society. The tiny efforts of each soul are the remarks of gratitude to Nature.**

**The entire team of LKSEC teachers has put all will and might in designing “The Holiday Assignment”, where certain aspects are kept in mind like use of technology, wise use of paper and resources from surroundings. Put your shoulder to the wheel in making the projects creative, attractive and cost effective with appropriate information.**

**While preparing the assignment, keep in mind following points:**

- 1. All the assignments should be original.**
- 2. Use technology wisely and correctly.**
- 3. Values and virtues bring enrichment in bonds among members of the family. So, as a piece of advice, involve your parents in the process.**
- 4. Use poster colours, sketch pens etc.**
- 5. Grammatical accuracy also carries weightage.**
- 6. Sincere and honest efforts will be appreciated.**
- 7. The cover page must include details like student’s name, class and section, subject and name of the teacher it is to be submitted to.**

**Make this summer special, innovative and enthralling.**

**Educationally Yours,**

**R C Joshi  
Principal**



# SUB - SCIENCE

## CLASS – VIII

### Student Details:

- ✓ Name : \_\_\_\_\_
- ✓ Class & Section : \_\_\_\_\_
- ✓ Roll Number : \_\_\_\_\_

### General Instructions:

- ❖ *Complete the work neatly in a separate notebook or file*
- ❖ *Use colors, drawings, and creativity wherever possible*
- ❖ *Revise each topic before attempting questions*
- ❖ *Parents are encouraged to guide but not solve*

## Chemistry

### Theme: The Investigative World of Matter

**Objective:** To explore the particulate nature of matter through observation, modeling, and real-world application.

### Presentation Guidelines

- ✓ Use a neat notebook or file
- ✓ Include diagrams and colorful headings
- ✓ Write in your own words
- ✓ Attach pictures (if possible)

### The Home Laboratory (Experiential Learning)

Perform these two mini-investigations and record your findings.

**Note-** The activity given below needs the parent's assistance.

## 1. The Diffusion Race:

Take two transparent glasses: one with ice-cold water and one with hot water (70°C – 80°C).

- ✓ Simultaneously drop some ink/food color into both.
- ✓ Observation: Note how long it takes for the color to spread completely in each glass.
- ✓ Formula for Reference:  $K.E. \propto T$

## 2. The Compressed Mystery:

- ✓ Take a 10 mL syringe (without the needle). Fill it with air and block the nozzle with your finger. Try to push the piston.
- ✓ Now, fill it with water and repeat. Finally, fill it with fine sand and repeat.
- ✓ Inquiry: Which state of matter was the most compressible? Why do the spaces between particles determine this?

Answer briefly (3-4 lines each). Draw diagrams.

1. What is matter made of? Describe the three main characteristics of particles of matter.
2. Compare particle arrangement in solids, liquids, and gases with sketches.
3. Explain diffusion with an example. Why doesn't it happen easily in solids?
4. Why do gases fill the entire container?

## Physics

Instructions: Do any 2 Activities of your choice

### Activity 1: Poster Design Competition (Choose ONE)

Topic Choices:

1. "Electrical Safety at Home"
2. "Save Electricity, Save Earth"
3. "Invisible Magnetism Around Us"

Requirements:

- Slogan
- Diagram

- Real-life safety tips
- Attractive visuals

### **Activity 2: Physics Presentation (Choose ONE)**

**Option A:**

**“How Electricity Changed Human Civilization”**

**Option B:**

**“Future of Wireless Electricity”**

**Option C:**

**“Can Humans Live Without Electricity?”**

**Rules:**

- 6–10 slides
- Include images, diagrams, and real examples
- Add one interesting fact from another country

**Creativity Ideas:**

- Include animations
- Add a quiz slide
- Use Canva or Google Slides

### **Activity 3: Electromagnet Engineering Challenge**

**Make an electromagnet using:**

- Iron nail
- Copper wire
- Battery

**Investigate:**

- Does increasing the number of wire turns increase strength?

- Which picks up more paper clips?

**Record:**

- Create a data table and conclusion.

**Real-Life Connection:**

**Research where electromagnets are used: ( Do ONE)**

- MRI machines
- Junkyard cranes
- Electric bells
- Maglev trains

#### **Activity 4: Digital & Research Activities**

**Explore any TWO simulations from:**

- PhET Interactive Simulations
- National Geographic Education STEM Resources
- NASA STEM Activities

**Suggested Simulations:**

- Circuit Construction Kit
- Magnets and Electromagnets
- Static Electricity

**Write:**

1. What you observed
2. What surprised you
3. One real-life application

#### **Activity 5: Create a Physics Board Game or Card Game**

**Theme:**

- Electricity Adventure

**Ideas:**

- Circuit-building race
- Magnetic treasure hunt
- Shock hazard traps
- Question cards
- Battery power points

**Rules:**

- Minimum 2 players
- Include instructions
- Use Physics questions/tasks

**Example Challenges:**

- “Your circuit is open. Miss a turn.”
- “You discovered a conductor. Move ahead 3 spaces.”

**Biology**

**Task 1:** Draw the coloured and labeled diagram of the following:

- (i) Amoeba
- (ii) Paramecium
- (iii) Chlamydomonas

**Task 2:** Visit a nearby National Park or Zoo in your area with your parents and observe its biodiversity. Click the pictures of your visit and paste it in a scrapbook and write your experience in not more than 250-300 words.

**Number of pictures to be included: 5-6**

**Task 3:** Using A4 size thick sheet make the model of plant cell with the help of biodegradable things like wood, grains, seeds fruit peels, etc. and labeled it appropriately.

# **SUB - ENGLISH**

## **CLASS – VIII**

### **Task 1 : Book Review**

Read a famous book of your choice and write a review including:

Introduction, genre, main characters, plot, theme, summary.

(Some Suggested books are- The Famous Five, Adventures of Huckleberry Finn, The adventures of Rusty.

### **Task 2**

Write down at least **100 Verbs (50 regular and 50 irregular)** and their forms. (V1 base form, V2- Past form, V3 – Past participle form and Present Participle -ing form)

### **Task 3**

**Fostering Human Connection and Empathy** - visiting old age homes and orphanages aim to combat loneliness, bridge generational gaps and remind vulnerable individuals that they are valued, supported, and not forgotten by society.

This summer vacation, plan a visit to old age homes and orphanages to foster human connection and empathy. Record and express your visit in the form of diary entry or report writing.

# SUB - MATHEMATICS

## CLASS : VIII

*Objective: This homework follows the "Learning by Doing" concept. Use real-world objects and surveys to understand how squares, cubes, and their roots function in everyday life.*

### 1. The "Square Foot" Scavenger Hunt

**Concept: Area as a Square**

**The Activity:** Find a piece of newspaper or old cardboard. Cut out a perfect square that is exactly 10 m x 10 m.

**The Survey:** Take your square around the house. Find 5 objects (e.g., a laptop, a small table, a cushion) and estimate how many of your squares are needed to cover their surface.

**Question:**

- Calculate the area of your measuring square (10x10).

### 2. The Kitchen Cube Challenge

**Concept: Visualizing Cube Roots**

**The Activity:** Collect a handful of identical small cubes (sugar cubes, ice cubes, or dice).

**The Survey:** Try to build a "Mega Cube" structure. First, build one that is 2 units wide (2x2x2). Then, try building one that is 3 units wide (3x3x3).

**Question:**

- How many total small cubes did you need for the 2<sup>3</sup> structure?
- How many for the 3<sup>3</sup> structure?

### 3. The Perfect Square Pattern

**Concept: Identifying Perfect Squares**

**The Activity:** Use an empty egg carton or draw a grid on paper.

**The Survey:** Use seeds or buttons. Fill the holes using only "Perfect Square" numbers: 1, 4, 9, 16.

**Question:**

- Draw the pattern of your beans for each number.

## 4. Age in the Mirror of Math

**Concept:** *Roots & Age*

**The Activity:** Interview 5 family members and record their current ages.

**Question:**

- Create a table showing: Name, Actual Age, and Nearest Perfect Square.
- Calculate the Square Root of that nearest perfect square.

## 5. The Architect's Floor Plan

**Concept:** *Designing with Roots*

**The Activity:** Draw a "Square Garden" on paper with an area of exactly 49 square units.

**The Survey:** Ask a family member to guess the side length of your garden.

**Question:**

- What is the actual side length of the garden? (Square root of 49).

*"Mathematics is a journey of exploration."*

*Enjoy your holidays!*

**SUB – COMPUTER SCIENCE**  
**CLASS – VIII**

**Assignment Title: Smart Future Classroom**

**Task**

Prepare a beautiful PPT on '*A Future Classroom Using Computers, Internet, and Smart Devices*' and write 10–12 lines explaining the topic. Submit your PPT to your subject teacher on his/her email ID.

## ग्रीष्मकालीन अवकाश रचनात्मक कार्य

विषय - हिन्दी

कक्षा - अष्टम

1. पाठ-1 'स्वदेश' कविता से प्रेरणा लेते हुए अपने देश के भूगोल एवं संस्कृति के विषय में लिखिए।
2. गर्मी की छुट्टियां में पक्षियों के लिए पानी की व्यवस्था कीजिए और जीवन में पानी की उपयोगिता पर अनुच्छेद लिखिए।

**SUB : SOCIAL SCIENCE**  
**CLASS : VIII**

**Prepare a file on the following topics :-**

1. Write about all the six Fundamental Rights guaranteed by the Constitution of India.  
Solve the following :-

**Option 1: Poster Making**

**Topic: “My Rights, My Power”**

**Include slogans and illustrations**

**Option 2: Comic Strip**

**Show how Fundamental Rights protect citizens in daily life.**

2. Prepare a Model OR Report: Depletion of Resources and It will impact Human Life

Question : Collect information related to the depletion of resources over the years and its impact on man’s life.

**Explain how depletion of resources affects human life in the following ways:**

- 1. Shortage of water**
- 2. Food insecurity**
- 3. Health problems**
- 4. Loss of livelihood**
- 5. Climate change**

**Note :- Use picture, caricature to make the file presentable and attractive.**