

Happy Summer Holidays



MGD Girls' School, Jaipur

Session 2026-27

Class 9 (Cambridge)

We wish you joy and fun .Be responsible . Enjoy
your vacation and travel safely.



Hindi

1. एक पौधा लगाइए तथा उसकी देखभाल कीजिए, उसे कोई नाम दीजिए और उसके साथ बातचीत को संवाद के रूप में लिखिए
2. सृजनात्मक लेखन – 'पृथ्वी का अंतिम पत्र इंसान के नाम' अथवा 'अगर हवा लिख पाती तो ये लिखती' ।
3. घर में रखी किसी किताब / अखबार से 20 नए शब्द खोजिए उनके अर्थ लिखते हुए वाक्य में प्रयोग कीजिए ।
4. किसी भी SDG Goal पर 2 से 3 मिनट तक का पॉडकास्ट या इंटरव्यू स्वयं रिकार्ड करें एवं अध्यापिका के साथ साझा करें (कक्षा में समझाए गए अनुसार)
5. पंच परमेश्वर, बूढ़ी काकी ,छोटा जादूगर, हार की जीत, गुल्ली डंडा, पूस की रात एवं बड़े भाई साहब कहानियाँ तथा दीपदान एकांकी पढ़ें। (पढ़ी गई कहानियों के लेखक का नाम तथा सार कक्षा में पूछा जायेगा)
6. किसी एक विषय पर एकालाप / भाषण तैयार करें –
अगर पृथ्वी बोल सकती तो....
क्या छोटे छोटे कदम बड़े बदलाव ला सकते हैं?
एक बूंद पानी की आत्मकथा ।
सबके लिए शिक्षा : एक सपना या हक

Computer Science

● Write the following question and answers in Computer notebook.

1. "Decode Your Name" – Write your name using ASCII values.
2. "Pixel Art with Binary" –
 - a. Create a 10×10 grid on paper. Draw a simple black and white image (Flower, smiley, etc.).
 - b. Write the binary code for each row. 1 for black and 0 for white. Write the binary code for each row.
 - c. How will this image gets stored if we perform lossless compression on it?
3. "Image Size Investigation"– Take the same photo and save it in three different formats (JPEG, PNG, BMP). Note down the file size, resolution of each image. Analyse which format is larger and how does different formats affect storage?
4. "Secret Binary Message"– Write a short message for your friend. Convert it into cipher text. Generate the key and ask your friend to decrypt the message.

french

The "Zero Waste" Recipe Book

Create a mini-booklet (4–5 pages) featuring simple French snacks or drinks.

- **The Task:** Write the ingredients and steps in French (e.g., le fruit, l'eau, mélangez).
- **Creative Twist:** The recipe must use "leftovers" or produce zero plastic waste (e.g., making a fruit salad from overripe fruit).
- **Visual:** Illustrate it using recycled paper or old magazines.

To make your "Livre de Recettes Zéro Déchet" (Zero Waste Recipe Book) :

Page 1: La Couverture (The Cover)

- Title: Mon Petit Livre de Recettes Zéro Déchet
- Visual Idea: Use a collage of food pictures cut from old magazines or newspaper headlines.
- French Phrase: Bon pour la planète ! (Good for the planet!)

Page 2: Recette 1 – Le Smoothie "Anti-Gaspi"

(Using overripe bananas or bruised fruit)

- Les Ingrédients:

1. Une banane très mûre (One very ripe banana)
2. Un peu de lait (A little milk)
3. Des fraises ou des pommes (Some strawberries or apples)

- La Préparation:

1. Coupez les fruits. (Cut the fruits.)
2. Mélangez avec le lait. (Mix with the milk.)
3. Dégustez froid ! (Enjoy cold!)

Page 3: Recette 2 – Chips de Peaux de Pommes

(Using the peels of apples instead of throwing them away)

- Les Ingrédients:

1. Les peaux de deux pommes (The peels of two apples)
2. Un peu de sucre (A little sugar)
3. De la cannelle (Some cinnamon)

- La Préparation:

1. Lavez les peaux. (Wash the peels.)
2. Ajoutez le sucre et la cannelle. (Add the sugar and cinnamon.)
3. Cuisinez au four pendant 10 minutes. (Cook in the oven for 10 minutes.)

Page 4: Le Lexique Écolo (Eco-Glossary)

Create a small list of "Zero Waste" terms to show the SDG goal:

- Le gaspillage alimentaire: Food waste
- Le compost: Compost
- Recycler: To recycle
- Réutiliser: To reuse

Creative Presentation Tips

- Paper: Use the inside of a brown paper grocery bag or the back of old school handouts for a "rustic" recycled look.
- Binding: Instead of a stapler, punch two holes and tie the pages together with a bit of old string or twine.
- Artwork: Instead of drawing perfectly, use "mixed media"—glue a real (clean) fruit sticker or a piece of a cardboard fruit box onto the pages.

NOTE : (This is for your reference, you can use your own ideas.)

English

Objective

To explore a real-world issue through the Sustainable Development Goals (SDGs) and present it using a variety of writing styles.

Task 1: SDG TIMES– VOICES FOR CHANGE

Create a handmade newspaper. Your newspaper should inform, analyse, and persuade readers.

Step 1: Choose Your SDG (ANY ONE)

Examples: Climate Action, Quality Education, Clean Water & Sanitation, Gender Equality, No Poverty

Step 2: Newspaper Sections (Compulsory)

1. **Headline Report**

(120–150 words)

2. **Interview Column**

(80–100 words)

3. **Advertisement / Awareness Box**

4. **Editorial Feature (Extended Writing – 200–300 words)**

5. **Creative Corner (Choose ONE)**

- Report an issue with facts and a solution
- Use formal tone
- Include at least 3 questions and answers
- Include slogan, visual, and call to action
- Choose one: responsibility, small change, future impact, or solution
- Show clear opinion, arguments, and real-life relevance
- Poem / Diary Entry / Short Story

TASK 2: Reading Task

Find and read ONE article related to your chosen SDG. (Paste the reference article in the file.)

(Source: newspaper, magazine, or a reliable online platform)

After reading, complete the following:

- Summary (80–100 words)– Write the main idea in your own words.
- Vocabulary Builder– Note 5 new words. Write their meanings and use them in sentences. Mention what the writer wants to convey using those words.
- Understanding the Issue/Your Opinion (80–100 words)–
 - What is the main problem discussed?
 - Mention one solution suggested in the article
 - Do you agree with the writer? Why / Why not?

Instructions

- Make sure that Task 1 must be done on reused paper. (A–3 sized paper folded once from the middle)
- Make it attractive and innovative.
- Task 2 should be done on separate A4 sheets which must be filed in a cardboard file or use a scrapbook. (NO PLASTIC FILES TO BE USED)
- SUBMISSION DATE: 6 JULY 2026

Reading Champ

The famous writer, C S Lewis said, “Literature adds to reality, it does not simply describe it.”

Reading is not merely a habit; it is a quiet awakening of the mind and spirit. In an era of fleeting distractions, reading anchors the mind, refines language, nurtures imagination and cultivates patience, focus, empathy, perspective, and discernment.

Books are faithful companions, reflecting our inner selves while opening vistas beyond our immediate world. Therefore, we would like to share a list of readable books with you. Knowing, for sure, that you will read the maximum number of books from the given list.

A true Reading Champ never stops exploring through pages. Challenge yourself this summer to read as many books as you can, because every book you finish adds strength to your mind and wings to your dreams. Read more, learn more, and grow more every single day. You may add more books of your choice to the list and share with your friends and teachers.

Recommended Books:

1. The Importance of Being Earnest- Oscar Wilde
2. Brave New World- Aldous Huxley
3. To Kill a Mocking Bird- Harper Lee
4. Jonathan Livingston Seagull- Richard Bach
5. The Little Prince- Antoine de Saint-Exupéry
6. Wise and Otherwise- Sudha Murthy
7. Kabuliwalah- Rabindranath Tagore
8. The Anxious Generation- Jonathan Haidt
9. Who Moved My Cheese? for Teens – Spencer Johnson
10. The Perks of Being a Wallflower – Stephen Chbosky



Mathematics

Instructions :

- Do question 2 in mathematics notebook
- Do question 1 in A3 size sheet

1. Create a poster/ rap/ poem/ story.

- Any one mathematics concept like review of number concepts, making sense of algebra, Fractions, Percentages and Standard form, Equations, Factors and Formulae.
- Use waste materials.

2. Study time Vs Marks(Check a relation between study hours and marks)

- Date Study hours per day.
- Recent Test Marks
- Scatter Time Table(basic level)
- Average marks
- Compare groups(high Vs low study time)
- Show how study time affects performance

3. Learn the levels of Rubik's cube.

Science - Chemistry

1. Matter commonly exists in three states: solid, liquid, and gas. However, there are other advanced states of matter such as Plasma and Bose–Einstein condensate (BEC), which show unique and interesting properties.

Investigate on Plasma and BEC covering the following points for both :

- Description / Definition
- Conditions required for formation
- Properties
- Examples
- Scientists associated

Present your findings neatly in your Chemistry notebook

2 . “Periodic Table in My House”

The Periodic Table is an arrangement of all the elements known to man in accordance with their recurring chemical properties.

They are assorted in a tabular arrangement wherein a row is a period and a column is a group.

The first 94 elements of the periodic table are naturally occurring, while the rest from 95 to 118 have only been synthesized in laboratories or nuclear reactors.

The modern periodic table, the one we use now, is a new and improved version of certain models put forth by scientists in the 19th and 20th century.

Dimitri Mendeleev put forward his periodic table based on the findings of some scientists before him like John Newlands and Antoine-Laurent de Lavoisier. However, Mendeleev is given sole credit for his development of the periodic table. You will find the Periodic Table in your textbook on page number 399.

Find five elements in the Periodic Table which are used at your home and prepare a table of your findings in the following format , in your Chemistry notebook.

Stick small pictures or draw items to make your project attractive.

OBJECT	ELEMENT	USE
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Foil	Aluminium	Packaging
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3. Everything around us is made up of tiny particles called atoms. The idea of atoms has developed over time through the work of many scientists. This journey is called the discovery of the atom.

Go through Activity C2.01 (Pg. No. 277) and prepare a pictorial timeline of discovery of atom on an A3 sheet .

The time line should include words , phrases and names of scientists associated with the discovery of the atom and its structure .

Science - Physics

All experiments To be done in PHYSICS PRACTICAL FILE

Title: Investigating the Effect of Surface Texture on the Speed and Acceleration of a Rolling Ball

Aim: To investigate how different surface textures affect the speed and acceleration of a ball rolling down a ramp.

Research Question:

How does the texture of a surface influence the motion (speed and acceleration) of a rolling object?

Hypothesis:

Smoother surfaces will allow the ball to roll faster and accelerate more due to lower friction.

Apparatus Needed:

Ramp (same angle throughout)(You may make using books/ Planks)

Standard ball (e.g., ping pong, golf, or rubber ball)

Stopwatch or motion sensor

Measuring tape or ruler

Different surface textures (e.g., wood, sandpaper, tile, carpet, rubber mat)

Graph paper

Variables:

Independent Variable: Type of surface texture

Dependent Variables: Speed and acceleration of the ball

Controlled Variables: Ball type, ramp angle, ramp height,

starting position

Method:

1. Set up the ramp at a fixed angle using a stand or books.
2. Place the first test surface on the ramp.
3. Measure a fixed distance on the ramp (e.g., 1 meter).
4. Place the ball at the top without pushing it.
5. Release the ball and start the stopwatch when it begins to move.
6. Stop timing when the ball crosses the end mark.
7. Record the time taken.
8. Repeat 3 times per surface and calculate the average time.

Use the following formulas:

$$\text{Speed} = \text{Distance} \div \text{Time}$$

$$\text{Acceleration} = (\text{Final Speed} - \text{Initial Speed}) \div \text{Time}$$

(Initial speed = 0 for rolling from rest)

9. Repeat steps 2–9 for all other surfaces.

Data Table (example)

S.No	Type of surface	Trial1	Trial 2	Trial3	AvgTime	SPEED
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Acceleration

1 Wood

2 Carpet

3 Paper

4 Tile

5 Rubber Mat

Graph:

Plot a bar graph of:

Surface Type vs. Average Speed

Surface Type vs. Acceleration

Conclusion:

(Summarize what the results show. Did they support your hypothesis? Discuss friction and any patterns observed.)

Evaluation:

Were your results consistent?

Any sources of error?

How could you improve the experiment?

On similar pattern investigate:

Exp 2: Measuring diameter of small spherical object (beads) using 2 wooden blocks and a ruler.

Exp 3: Measuring time period of a simple pendulum and studying factors affecting time period of simple pendulum. You may use the following link to perform experiment virtually.

<https://phet.colorado.edu/en/simulations/pendulum-lab>

Science - Biology

Part 1: Cell as a City (Creative Project)

Imagine a cell as a city. Each organelle performs a specific function just like parts of a city.

Create a model / poster / digital presentation showing:

- * Nucleus → Control center (Mayor's office)
- * Mitochondria → Powerhouse (Power station)
- * Ribosomes → Protein factories
- * Vacuole → Storage unit
- * Cell membrane → Security gate
- * Cytoplasm → City environment

Add labels and a short explanation (2–3 lines each)

Part 2: Role Play / Comic Strip

Choose any one:

- * Create a comic strip where organelles are characters interacting

OR

- * Write a short dialogue/story where organelles discuss their roles

Make it colorful, humorous, and informative

Part 3: Create a mnemonic / rap / poem to remember organelles and their functions.

Submission Guidelines:

- * Compile all work in bio notebook
- * Use colored headings, diagrams, and creativity
- * Choose any one out of the above three parts(1–3)

Assessment Criteria:

- * Creativity & presentation
- * Concept clarity
- * Effort & originality
- * Neatness and organization



Economics

1. Work on draft of Team Project .Topics as per discussion in class.
2. Prepare Individual Report .(As per topics assigned.)

Global Perspective

1. Describe the impact of global event (US- Iran war) on the selected country on the following perspectives:
 - a. Basic economic problems and different decisions
 - b. Scarcity of resources
 - c. Change in Production Possibility Curve due to change in Factors of production
 - d. Impact of change in price on Demand of different products (Mention any 3 products with details)

2. Design a poster on social or environmental issues like "Save Water" or "save Electricity" or any other environmental issue to demonstrate the scarcity of natural resources and judicious use to save the resources for future.

3. Collect and paste 3 newspaper articles related to:
 - Inflation
 - Unemployment
 - Digital payments
 - Rising prices
 - Budget

Write:

 - i. Date
 - ii. Source
 - iii. Summary
 - iv. Related economic concept



HOMEWORK TIPS FOR TEENS



Work smarter, not harder.



SET A SCHEDULE

Pick a regular time that works for you; consistency builds routine.

LIMIT DISTRACTION

Put your phone on silent or use focus apps to stay in the zone.



PRIORITIZE TASKS

Start with what's due soon or what takes the most brainpower.



TAKE A BREAKS

Use the 25/5 rule: 25 minutes work, 5 minutes break to recharge.



