# SHAMBHU DAYAL GLOBAL SCHOOL
## HOLIDAY HOMEWORK (2025-26)
## CLASS – VII

| ENGLISH | MATHEMATICS |
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| **Theme- Science and Discovery**<br>**Topic- "The Discovery Diaries: A Scientist's Secret Journal"**<br>Students imagine they are famous scientists (real or fictional) and write a creative diary describing:<br>1. The day they made their big discovery<br>2. The challenges they faced<br>3. How they felt<br>4. Conversations with peers or rivals<br>5. A short poem or riddle about their invention/discovery<br>Add a sketch or comic strip of the discovery moment.<br>**How Students Will Do It**<br>1.Choose a Scientist or Create One<br>•Pick a real scientist (like Marie Curie, Galileo, Abdul Kalam) or invent a fictional one with a fun name and discovery.<br>2.Research or Imagine the Discovery<br>•For real scientists: read about their discovery.<br>•For fictional ones: use imagination to invent a new device or phenomenon.<br>3.Write the Diary Entry<br>•Include the date, location, and feelings.<br>•Describe the process, challenges, rivalries, breakthroughs, and reactions.<br>-Add a fun twist: a short poem or riddle about the discovery.<br>4.Illustrate<br>-Draw or digitally create a sketch or comic strip showing the discovery moment or a conversation.<br>5.Compile and Decorate<br>-Put everything together in a mini booklet, digital slide, or handmade journal style.<br>**Materials Required**<br>1. Notebook or A4 sheets<br>2. Pens, pencils, crayons/colours<br>3. Access to books or internet (for research)<br>4. Ruler/glue (for handmade booklets)<br>5. Optional: Digital device (phone/tablet/computer) for typed entries or digital illustrations<br>**Here are AI tools students can use for the task:**<br>1.ChatGPT – for content generation and creative writing<br>2.Grammarly – for grammar and editing support | **Theme- Science and Discovery**<br>Topic: Mathematics behind Science Discovery<br>Task: **The Hidden Geometry of Structures**<br>**The Science Connection:** Many natural and human-made structures rely on geometric shapes for strength and stability. Think of honeycombs, spiderwebs, or even the microscopic structure of crystals.<br>**The Math Task:**<br>**Observe and Analyze:** Find at least two different examples of structures that seem to use geometric shapes for their form or function. One could be a natural structure (like a honeycomb or a bird's nest), and the other could be human-made (like a bridge or a building).<br>**Identify the Shapes:** What basic geometric shapes do you see in these structures (e.g., hexagons in a honeycomb, triangles in a bridge truss)? Draw or trace these shapes.<br>**Explain the Advantage:** Research (or make an educated guess) about why these shapes might be advantageous for the structure's purpose. For example, why are honeycombs often hexagonal? Why are triangles used in bridges? Think about strength, stability, and efficient use of materials.<br>**Mathematical Reasoning:** How do the properties of these shapes (e.g., angles, sides) contribute to the overall strength or efficiency of the structure?<br>**Presentation:** Share your discoveries through a model (e.g., building a small model of a bridge using straws and explaining the role of triangles), a detailed drawing with labels and explanations, or a written report with diagrams and your reasoning. |

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| 3.Canva (with Magic Write) – for designing and formatting journal pages | |
| **SCIENCE** | **HINDI** |
| **Theme- Science and Discovery**<br>Make a comparative research paper based on one futuristic science / discovery of your choice, how it would be impact up to 2025 an effect on humanity and mankind with the use of AI tools.<br>HOW TO DO-<br>**AI in Healthcare: A Futuristic Discovery Changing Lives – Impact till 2025**<br>**Including these points-**<br>Introduction:<br>What Is Artificial Intelligence?<br>Futuristic Discovery: AI-Powered Disease Detection<br>Before 2015:<br>By 2025:<br>Impact on Humanity (Up to 2025):<br>Use of AI Tools:<br>Challenges / Limitations:<br>Bibliography (AI Tools Used for Research):<br>Do this comparative research paper in a project file. | **Theme- Science and Discovery**<br>**भविष्य की खोज**<br>**खोजकर्ता की एक डायरी**<br>किसी भी एक खोजकर्ता के किसी एक आविष्कार की चित्र सहित व्याख्या a4 सीट पर कीजिए।<br>**गतिविधि का नाम: "मैं एक वैज्ञानिक होता तो..."**<br>कोई एक आविष्कार जो भविष्य में हो सकता है, चित्र व पंक्तियों में उसका विवरण a4 शीट पर दीजिए।<br>काल्पनिक खोज पर कहानी या कॉमिक बनाएं क्या करना है: सोचें कि आप एक वैज्ञानिक हैं और आपने कोई नई खोज की है (जैसे उड़ने वाला जूता, बात करने वाला पंखा, खाना बनाने वाली किताब आदि)। अब इस खोज पर आधारित एक कहानी या कॉमिक स्ट्रिप बनाएं।<br>**शामिल करें:**<br>खोज का नाम<br>खोज की जरूरत क्यों पड़ी<br>कैसे काम करती है<br>दुनिया पर इसका क्या प्रभाव पड़ा<br>लक्ष्य: कल्पनाशक्ति, लेखन कौशल और प्रस्तुति शैली का विकास। |
| **FRENCH** | **SANSKRIT** |
| **Theme- Science and Discovery**<br>Topic: French scientist and their inventions<br>(i) Scientist research<br>(ii) Research points:<br>(a) Name of the scientist<br>(b) Birth-death<br>(c) Field of work<br>(d) Main discovery or invention<br>(e) Importance of their discovery | **Theme- Science and Discovery**<br>**गतिविधि-** 1- विज्ञान में संस्कृत का उपयोग - कैसे ?<br>2-विज्ञान द्वारा किए गए कौन से आविष्कारों का वर्णन हमारे संस्कृत ग्रंथों में पहले से ही किया गया है \|<br>**नोट -** यह कार्य अपनी उत्तरपुस्तिका में करिए \| |
| | **IND. & SOCI.** |
| | **Topic 1: Climate Action – Protecting Our Planet**<br>**1. Report on Local Environmental Issues**<br>**AI Help:**<br>• Use **ChatGPT**: Ask for a sample report on issues like plastic waste in your locality, air pollution from vehicles, etc.<br>Example prompt:<br>"Write a level report on water pollution in my city and how it can be reduced."<br>• Use **Grammarly** to check grammar and spelling before printing.<br><br>**2. Eco-Friendly Model (Rainwater Harvesting, Solar Panels)**<br>**AI + Design Tools:**<br>• Ask ChatGPT to explain **how to build** a simple model using cardboard or recycled materials.<br>• Use **YouTube + Bing Search** with AI tools (like Copilot) to find **step-by-step guides**.<br>• Option: **Use Google Sketch Up** to digitally design a 3D model. |

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| | **Topic 2: Science and Discovery**<br>1. Mini-Biography Booklet of Scientists<br>AI Help:<br>• Use ChatGPT for:<br>o Galileo Galilei (Telescope)<br>o Isaac Newton (Gravity)<br>o Marie Curie (Radioactivity)<br>o CV Raman (Raman Effect)<br>o APJ Abdul Kalam (Missile Man of India)<br>• Use Book Creator or Canva Booklet Templates to design the mini biography with images.<br><br>2. Simple Home Experiments<br>AI Collaboration:<br>• Ask ChatGPT:<br>"Give steps for a simple volcano experiment at home."<br>• Record video using phone + edit in CapCut or InShot.<br>• Add AI-generated voiceovers using Murf.ai or ElevenLabs. |
| **IDU SPORTS** | **Visual Art** |
| Topic: Science and Discovery in Sports<br>Choose any one sport (e.g., cricket, football, athletics & swimming).<br>Research and present:<br>a) The scientific principles used in that sport (e.g., aerodynamics, biomechanics, energy transfer).<br>b) Key discoveries or inventions that have impacted the sport (e.g., synthetic turf, high-tech shoes, Hawk-Eye system, wearable fitness tech).<br>c) How nutrition and sports science help athletes perform better.<br>d) Famous sports scientists or innovators (write a short paragraph about one).<br>e) Create a labelled diagram (hand-drawn or printed) showing how science is applied in your selected sport.<br>*Bonus (Optional): Create a simple science experiment related to your sport (e.g., testing grip on different surfaces or measuring jump height with and without warm-up).<br>Submission Format:<br>*A4 sheets or a scrapbook<br>Include pictures, facts, and creative presentation<br>Minimum 4 pages | Topic: Science and Discovery<br><br>Art and Craft Project<br><br>Create an Art & Craft project based on a famous scientific discovery.<br><br>Choose Two:<br><br>1. 3D Model of the Solar System – Show planets with labels using paper, thermocol, or clay.<br><br>2. Volcano Eruption Model (Craft with Paper Mâché) – Decorate it with colorful paints and textures.<br><br>3. Craft a Microscope or Telescope Model – Use cardboard, tubes, and paper.<br><br>4. DNA Helix Craft – Create a colorful twisted ladder from straws, clay, or pipe cleaner |
| **CLUB** | **SKILL** |
| **SOLID WASTE MANAGEMENT:**<br>**My Compost Jar- Solid waste Activity** | EMBROIDERY:<br>TASK 1: Create a beautiful Parandi using traditional craft materials like bangles and latkans. |

**Objective:** Learn how kitchen waste can be useful.

**Instructions:**

- Take a small plastic jar.
- Add vegetable peels, dried leaves, and a little soil.
- Cover with holes for air.
- Observe it for 2 weeks.
- Write down what changes you see.

**AQUACULTURE:**
**Activity 1: DIY Hydroponic Plant Jar-Aquaculture Activity**

**Objective:** Understand how plants grow using water and nutrients, without soil.

**Materials Needed:**

- A transparent plastic bottle or jar
- Net pot or small cup with holes
- Cotton or sponge
- Seeds (e.g., mint, spinach, lettuce)
- Water + Nutrient solution (or diluted fertilizer)

**Instructions:**

1. Cut the top off the bottle to place the net pot.
2. Add the plant or seeds in cotton.
3. Fill the bottle with water so roots touch it.
4. Place it in indirect sunlight.

Observe and record plant growth for 7–14 days.

MASS MEDIA:

## "Local Hero Story Podcast"

**Project Title:** *Unsung Heroes Around Me*

**Activity:**

Interview (or write about) any **local unsung hero** (e.g., street cleaner, school guard, vegetable vendor, nurse, etc.) who silently contributes to the community.

- Record a **1-minute podcast script** OR write it out
- Add a title like *"Voice of the Streets"*
- Optionally add a sound effect or intro tune

**Outcome:** Empathy, storytelling, speaking skills, respect for grassroots contributions

TASK 2:Prepare a Sampler Cloth (minimum size: 12 x 12 inches). Practice and neatly stitch the following 6 embroidery stitches:Stem Stitch

Satin Stitch

Chain Stitch

Herringbone Stitch

French Knot

3D PRINTING: Draw a design of any animal like (butterfly, fish,owl,turtle) on butter paper.
POTTERY: Skill Focus: Fine motor skills, pattern recognition
Activity: Provide cutouts of vases or plates. And pot Let kids decorate them with blue-themed stickers in patterns (circles, lines, floral).
Material required;- Natural clay

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| **MOVIE MAKING:**<br>**Topic: Movie Making – Create Your Own Short Film**<br><br>**1. Make Video on -Theme or Story**<br><br>Pick one genre for your movie:<br><br>• Make a short Movie using puppets<br>• Environmental Message (e.g., "Save Trees", "Plastic-Free World")<br>**2. Film the Movie**<br><br>• Use your phone or tablet in landscape mode<br>• Try to keep the camera steady (use a stand or support)<br>• Record scenes in order or out of order (you can edit them later)<br>**3. Edit Your Movie *(Optional but encouraged)***<br><br>Use free editing apps like:<br><br>• **CapCut**<br>• **iMovie**<br>• **Kinemaster**<br>• **YouCut**<br>Add:<br><br>• Background music or sound effects<br>• Titles and end credits<br>• Transitions between scenes<br>**4. Final Touch**<br><br>• Give your movie a **title**<br>• Include **opening credits** (name of the movie, your name)<br>• Add **closing credits** (actors, helpers, editor, etc.)<br>**5. Submission**<br><br>• Submit the final video to your class teacher | |