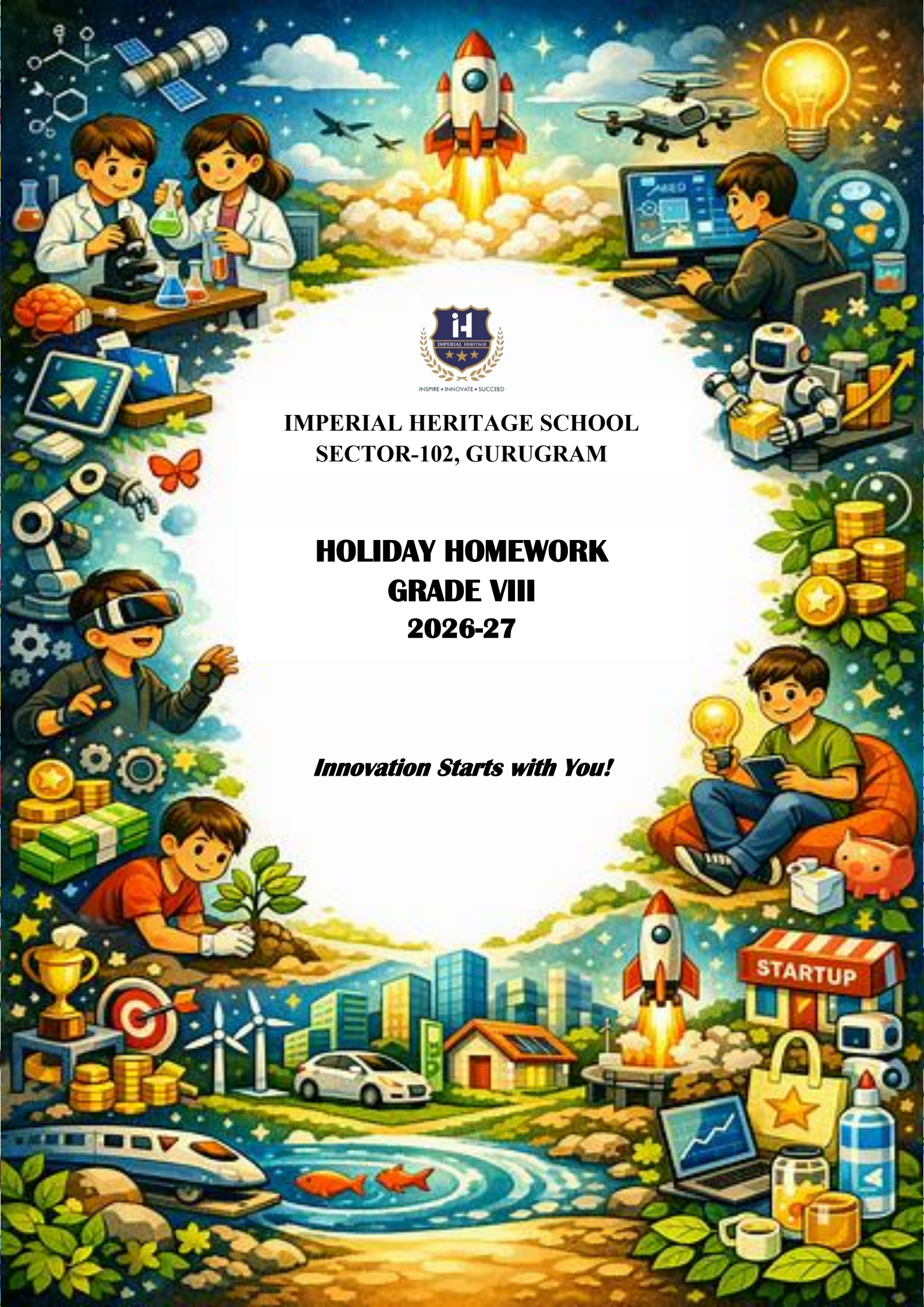




**IMPERIAL HERITAGE SCHOOL  
SECTOR-102, GURUGRAM**

**HOLIDAY HOMEWORK  
GRADE VIII  
2026-27**

***Innovation Starts with You!***



*“Curiosity Never Goes on Vacation—and neither does the joy of learning.”*

Dear Parents,

Warm greetings!

At Imperial Heritage School, we view learning as a continuous journey—one that extends far beyond the classroom walls. The purpose of holiday homework is not merely to keep students occupied, but to inspire them to explore, reflect, and grow independently. It is an opportunity for children to connect classroom knowledge with the world around them, while discovering their own unique ways of learning.

### **The Purpose Behind Holiday Homework**

Holiday assignments are thoughtfully designed to:

- Sustain the rhythm of learning even during the break
- Encourage application of concepts in everyday life
- Develop responsibility, discipline, and effective time management
- Strengthen analytical thinking, creativity, and problem-solving abilities

### **Learning Through Projects**

Each assignment is aligned with CBSE guidelines and focuses on experiential, project-based learning. These tasks are curated to ensure meaningful engagement, allowing students to bridge theory with practical understanding in a creative and enjoyable manner.

### **Assessment Parameters**

Holiday homework will form a part of Internal Assessment and will be evaluated on:

- Content
- Presentation
- Relevance
- Creativity
- Originality
- Timely Submission

Kindly Note the Holiday Homework Marks are added in the Internal Assessment mark for Term I.

### **Guidelines for Students**

- **Be Authentic:** Your work should reflect your own ideas and efforts.
- **Plan Ahead:** Break tasks into small parts and complete them gradually.
- **Follow Instructions:** Read each guideline carefully before beginning.
- **Maintain Neatness:** Clear, organized work always creates a strong impression.
- **Think Creatively:** Present your work in an innovative and engaging manner.
- **Read Daily:** Cultivate the habit of reading to expand your imagination and language skills.
- **Practice Mathematics:** Consistency is key—regular practice leads to mastery.
- **Seek Guidance, Not Substitution:** Parents may guide, but students must complete the work independently.
- **Prioritize Quality:** Focus on depth, clarity, and meaningful content.

### **A Fresh Thought for Our Learners**

“Where Questions Bloom”

When holidays stretch like open skies,  
Let wonder wake and questions rise.

Not all learning lives in books,  
It hides in paths and curious looks.  
In silent thoughts, in things you make,  
In every risk you choose to take,  
In colours mixed or stories spun,  
In problems solved just for the fun.

A restless mind, a seeking heart,  
That’s where true journeys always start.  
So, learn, explore in your own way—  
Let curiosity lead each day.

**Submission Date:** 6th July, 2026

We eagerly await the thoughtful and creative work our students will present. May this vacation be a time of joyful discovery, meaningful experiences, and personal growth. Wishing you all a safe, refreshing, and enriching summer break!

**Warm regards,**

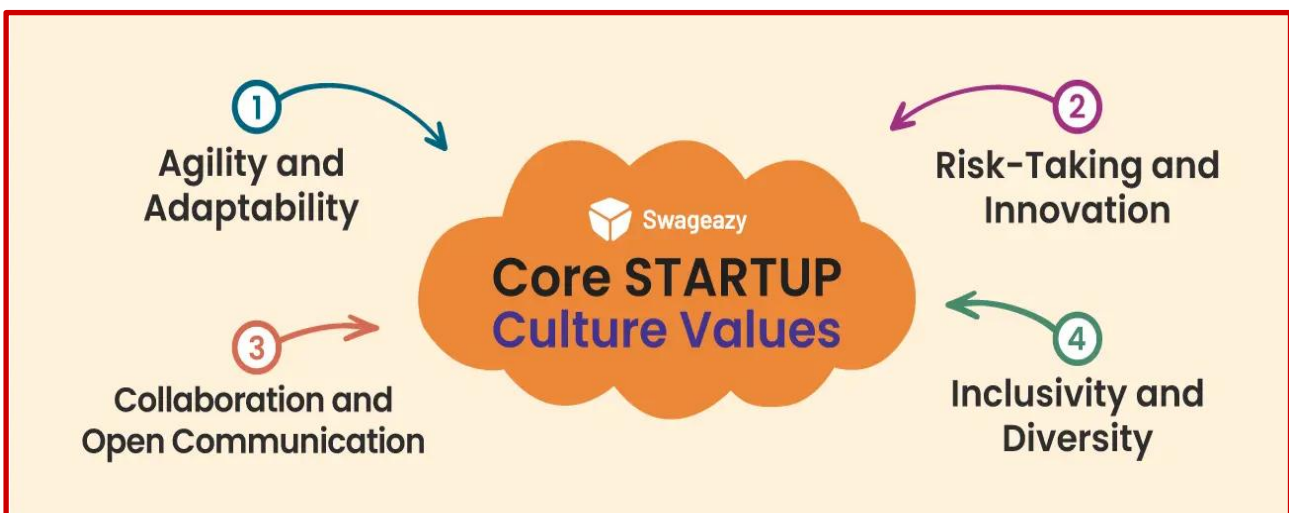
**Ms. Neelu Sharma**  
**Principal**

## TOPIC - INNOVATION & STARTUP CULTURE

In today's fast-changing world, *startups and innovation* are shaping the future around us. A startup is a small business idea started by people who want to solve a problem in a new and creative way. Innovation means thinking differently and coming up with smart solutions to everyday challenges. From mobile apps to eco-friendly products, many ideas that started small have grown into big successes because someone dared to think creatively.



India is becoming a hub of young innovators, and students like you can also be a part of this exciting journey. You don't need big resources—just curiosity, observation, and the courage to try something new. Whether it's improving something in your school, helping your community, or creating a simple model, every idea matters.



This holiday homework is your chance to explore your creativity, think like a problem-solver, and develop new skills. Look around you—what problems do you see? How can you solve them in a unique way? Remember, every big invention once started as a small idea. Who knows? Your idea today could become tomorrow's innovation!

## ENGLISH

### TASK 1 - DIARY ENTRY

Write a series of diary entries from the perspective of a startup founder. Create an attractive diary on the topic - **“My Startup Journey”**. Include entries (word limit 80 words / entry) on the following topics -

1. Entry 1: Your idea for the start up
2. Entry 2: various resources that you had to arrange for
3. Entry 3: people who helped you when you faced challenges and obstacles in the start - up journey
4. Entry 4: you launch the start-up and have positive media coverage and good response
5. Entry 5: your feelings on the entire journey of the past 6 months after the success- launch party.

### TASK 2 - Article Writing – “The Rise of Startups”

Select any one start-up of your choice from the list of start-ups given below - Zepto, Blinkit, Snabbit, UrbanCompany, Pronto, Swiggy, Zomato.

Write an analytical paragraph of 150 words highlighting the following key points -

1. Founder
2. Their challenges
3. The target audience
4. Its impact on customer - positive and negative
5. How it is still relevant and its future relevance in the 21st century.

### TASK 3 - “Shark Tank Classroom – Pitch Your Startup!”

Prepare your two minutes speech for class presentation! Instructions are as follows -

- **Imagine a unique startup idea (fun, weird, or useful!)**
- **Add solutions and innovations to challenges from HARYANA or TELENGANA.**
- **Give your startup:**
  - A name
  - A catchy slogan
  - A problem it solves
  - A creative solution

#### Presentation Style:

- Students act as entrepreneurs and present a 2–3 minutes pitch
- Use persuasive English to convince “investors” (teacher/classmates)
- Optional: dress up, use props, or draw a logo

**Shark Attack** - A Q/A round to be followed where teacher / fellow classmates will ask you various questions regarding your pitch.

## HINDI

“Sustainable Innovation & Startup Culture” “सतत नवाचार और स्टार्टअप संस्कृति”

कार्य 1: “मेरा सपना - विकसित भारत “सतत नवाचार और स्टार्टअप संस्कृति” पर A3 Size Sheet पर विज्ञान बोर्ड” (संकल्प सहित) बनाइए ।

कैसे करें: A3 चार्ट पेपर या स्कैपबुक के पेज पर बीच में लिखें: “विकसित भारत “सतत नवाचार और स्टार्टअप संस्कृति” पर आधारित चित्र/ड्राइंग बनाएँ और नीचे अपनी प्रतिबद्धता\ संकल्प लिखें ।

- निर्देश - स्वच्छ ऊर्जा, सशक्त भारत (सोलर पैनल) दिखाएँ।
  - युवा लैपटॉप पर स्टार्टअप चला रहे हों 🖥️
  - ड्रोन, AI, रोबोटिक्स का उपयोग हो 🚁
  - “Made in India” प्रोडक्ट दुनिया भर में जा रहे हों



कार्य 2: पर्यावरण को सुरक्षित रखने के लिए “ग्रीन टेक - क्लीन भारत” पर आधारित (नीचे दिए गए किसी एक विषय पर) A3 शीट पर चित्र बनाते हुए नारे लिखें । जैसे -

- 🌞 सोलर पैनल और सोलर एनर्जी
- 🚗 इलेक्ट्रिक वाहन (EV)
- 🌳 हरियाली और पेड़-पौधे
- 🏙️ स्मार्ट सिटी
- ♻️ रिसाइक्लिंग चिन्ह

कार्य 3: हरियाणा और तेलंगाना राज्य के कोई एक स्टार्टअप का A3 साइज़ शीट पर चित्र बनाते हुए उनकी जानकारी लिखें।

**STARTUP हरियाणा**  
नवाचार से समृद्धि

हरियाणा सरकार

## हरियाणा नवाचार करता है, भारत आगे बढ़ता है।

विचारों को सशक्त बनाना, बेहतर कल का निर्माण करना

- एग्री-टेक**  
भोजन कृषि के लिए
- इंडस्ट्री 4.0**  
स्मार्ट हरियाणा के लिए
- हेल्थ-टेक**  
स्वस्थ भविष्य के लिए
- सतत समाधान**  
हरित भविष्य के लिए

**एक राज्य, अनंत संभावनाएँ**

इन्वेंचरशिप | मेंटॉरशिप | फंडिंग सहायता | मार्केट एक्सेस

**सपने देखें। निर्माण करें। आगे बढ़ें।**  
मर्थ से हरियाणा की, वैश्विक स्तर पर प्रतिस्पर्धी

तेलंगाना सरकार

**STARTUP TELANGANA**  
नवाचार | उद्यम | भविष्य

## तेलंगाना जहाँ विचार उड़ान भरते हैं

आज नवाचार करें, कल प्रभाव डालें

- डीए टेक**  
भविष्य का निर्माण
- हेल्थ टेक**  
केवल स्वास्थ्य, बेहतर जीवन
- एग्री टेक**  
समस्याओं को सशक्त बनाना
- D2C और ई-कॉमर्स**  
नए अवसरों का विस्तार
- SaaS और एंटरप्राइज**  
बड़ी समस्याओं का समाधान

विश्वस्तरीय स्टार्टअप इकोसिस्टम

- मेंटॉरशिप
- फंडिंग
- इन्क्यूबेटर
- मार्केट एक्सेस

**बड़ा सोचें! यहीं से शुरू करें!**  
वैश्विक स्तर पर आगे बढ़ें।

[www.startuptelangana.telangana.gov.in](http://www.startuptelangana.telangana.gov.in)

# MATHEMATICS

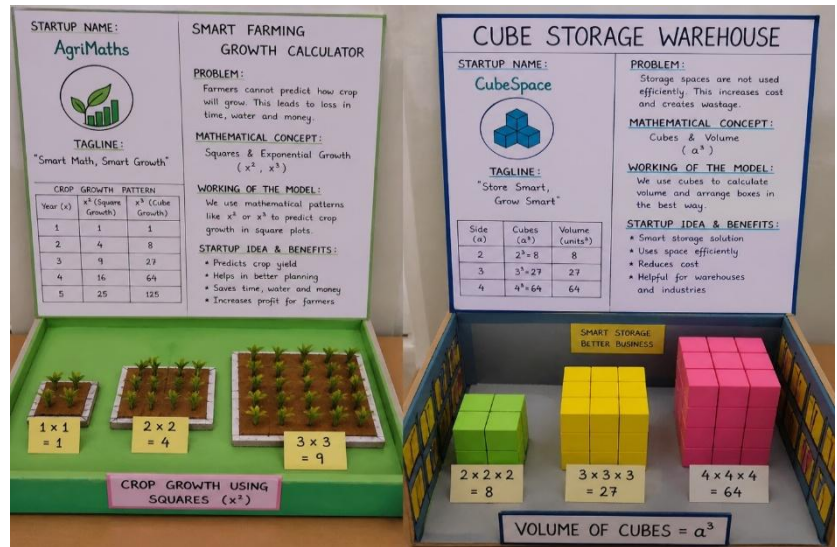
## “Math Startup Prototype – Solving Real-Life Problems using Squares, Cubes & Powers”

### Task: 1

Students will design a **math-based working/display model** that can become a startup idea.

Each project must include:

- Startup Name & Logo
- Tagline (Example: “*Smart Math, Smart Growth*”)
- Model with proper labels
- A3 Chart explaining:
  - Problem
  - Mathematical Concept (Squares/Cubes/Powers)
  - Working of the model
  - Startup idea & benefits



### Roll No. 1–5: Smart Farming Growth Calculator

**Concept:** Squares & exponential growth

- Model Idea: Show crop growth increasing like  $x^3$  or  $x^2$
- Example: Plants growing in square plots
- Startup Angle: Predicts crop yield using math patterns

### Roll No. 6–10: Perfect Square Packaging System

**Concept:** Perfect squares

- Model Idea: Arrange products in square grids (e.g., 16, 25, 36 items)
- Show efficient packing
- Startup Angle: Minimizes space & cost in packaging industries

### Roll No. 11–15: Cube Storage Warehouse

**Concept:** Cubes & volume

- Model Idea: Stack cube boxes to show volume calculation
- Use numbers like 8, 27, 64
- Startup Angle: Smart storage & logistics solution

### Roll No. 16–20: Power-Based Investment Growth Model

**Concept:** Exponents (Power Play)

- Model Idea: Show money growth using powers of 2 or 3
- Use charts or step model
- Startup Angle: Financial planning tool for startups

### Roll No. 21–25: Smart City Grid Planner

**Concept:** Squares (area planning)

- Model Idea: Design a city layout using square grids
- Calculate area using square numbers
- Startup Angle: Helps in efficient urban planning

### Roll No. 26–30: Cube Water Tank Design

**Concept:** Cubes & volume

- Model Idea: Design cube tanks and calculate capacity
- Compare different cube sizes
- Startup Angle: Efficient water storage solutions

## Task: 2

Create your own innovative Cross word puzzle os sudoku game (9x9) using mathematical concepts.

# SPACE SUDOKU

Fill the grid so that each space object appears only once in every row, column and  $3 \times 3$  box.

### YOUR PUZZLE


### SOLUTION (ANSWER KEY)

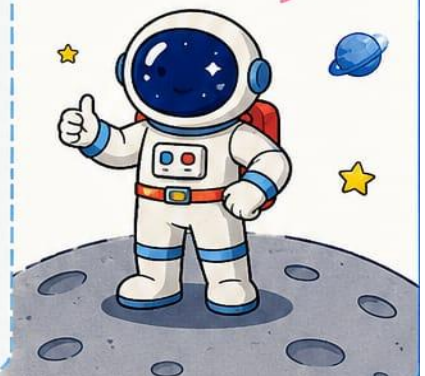

### RULES

- ★ Each space object must appear only once in every row.
- ★ Each space object must appear only once in every column.
- ★ Each space object must appear only once in every  $3 \times 3$  box.
- ★ Use logic and thinking, not guessing!

### SPACE OBJECTS (LEGEND)

- Earth
- Rocket
- Star
- Purple Planet
- Orange Planet
- Moon
- UFO
- Sun
- Comet

USE YOUR BRAIN AND HAVE FUN!



1. Start with rows, columns or boxes that have the most objects filled.
2. Look for missing objects in each row, column and box.
3. Eliminate possibilities and place the correct object.



### Task 3- REFLECTION ACTIVITY

“How Mathematics Helps in Saving Environment” (80–100 words) on A 4 sheet

### Task 4: QUESTION BANK (UPLOADED ON ERP)

#### Note:

- Keep work neat and well-labelled
- Submit in a file/folder with a **theme-based cover page**
- Show mathematical calculations clearly wherever required

# SCIENCE

## 1. Model / Display Project (Science Innovation)

**Title:** “*Science Startup Prototype – Solve a Real-Life Problem*”

**Task:** Students will design a **science-based model** that could become a startup idea. Each project must include:

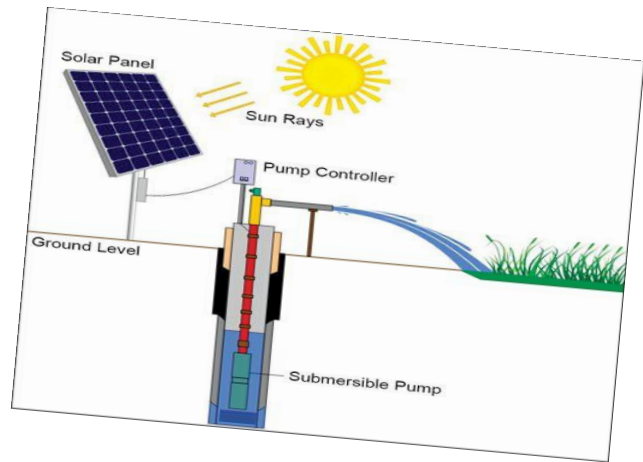
- A **startup name & logo**
- A **tagline** (e.g., “Save Water, Save Future”)
- Model with labels
- A3 chart explaining:
  - Problem
  - Scientific principle
  - Working of model
  - Startup idea & benefits

### **Roll No. 1–6: *Solar-Powered Smart Irrigation System***

**Concept:** Solar energy + water conservation

**Model Idea:** Use a small solar panel (or demo with torch), Show automatic watering of plants

**Startup Angle:** Saves water & electricity for farmers



### **Roll No. 7–12: *Water Purification System (Low-cost)***

**Concept:** Filtration + sedimentation + evaporation

**Model Idea:** Layers of sand, gravel, charcoal, Demonstrate dirty → clean water

**Startup Angle:** Affordable clean water solution



### **Roll No. 13–18: *Waste Segregation Smart Dustbin***

**Concept:** Sensors / simple sorting mechanism

**Model Idea:** Separate wet & dry waste (manual or sensor-based)

**Startup Angle:** Cleaner cities, recycling support

### **Roll No. 19–24: *Mini Wind Energy Generator***

**Concept:** Wind energy → electrical energy

**Model Idea:** Fan blades + small motor (LED glows)

**Startup Angle:** Renewable energy solution

### **Roll No. 25–30: *Eco-Friendly Refrigerator (No Electricity)***

**Concept:** Evaporative cooling

**Model Idea:** Clay pot refrigerator (pot-in-pot model)

**Startup Angle:** Useful in rural/off-grid areas

## 2. Research-Based PPT

**Title:** “*Science Behind Successful Startups*”

**Task:** Prepare a **PowerPoint (8–10 slides)** showing how science drives startups.



### Case Study Allocation

- **Roll No. 1–5:** Tesla  
(Electric vehicles, batteries, renewable energy)
- **Roll No. 6–10:** Ola Electric  
(Electric scooters, battery swapping technology)
- **Roll No. 11–15:** MoEViing  
(Electric mobility, sustainable transport)
- **Roll No. 16–20:** BYJU'S  
(Learning science, technology in education, digital innovation)
- **Roll No. 26–30:** AgniKul Cosmos  
(Roll No. 21–25: Zomato  
(Technology + logistics, app-based innovation)
- **3D-printed rockets, space innovation)**

### Each group should include:

- Introduction to the startup
- Scientific concept involved
- Innovation/technology used
- Benefits to society/environment
- Challenges faced
- Future scope



### 3. Creative & Quick Task

**Title:** “Innovative Science Product Advertisement”

**Task:** Design a poster for a science-based startup that solves a real problem in Telangana (like heat, water shortage, pollution, or waste).

#### What to Include:

- Product name & logo
- Scientific concept used (e.g., solar energy, recycling)
- Tagline (creative)
- 2–3 benefits

#### Example Ideas:

- Solar-powered school bag charger
- Eco-friendly biodegradable plastic
- Air-purifying indoor plant system



Focus on how your idea can improve life in Telangana.

## SOCIAL SCIENCE

### 1. Model / Display Project (Innovation)

#### Title: Local to Global Startup Model (ROLL NO- 1 TO 15)

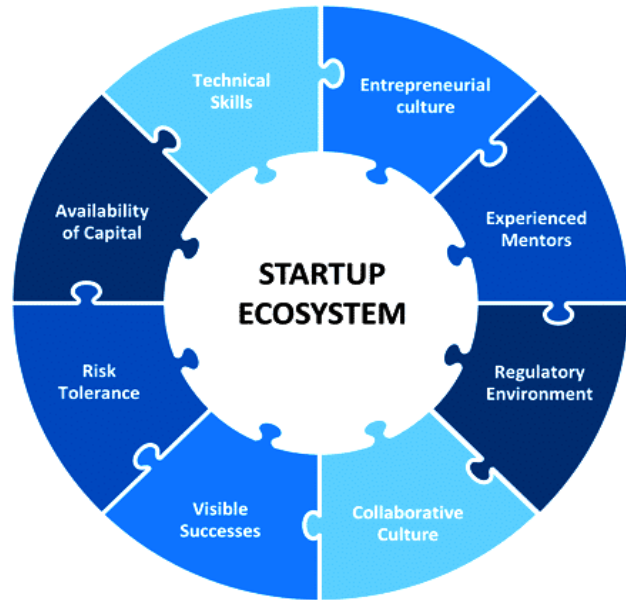
Task: Create a 3D model/flowchart showing how a local product becomes global through the stages:

**Raw Material → Production → Branding → Marketing → Export**

- Show source of raw materials (farmers/artisans)
- Examples: cotton (khadi), millets (grains), clay/wood (handicrafts)
- Show how the product is made  
Include: Small workshop / loom / processing unit Workers/artisans
- Create your own brand name and logo
- Add a tagline like “Eco-friendly”, “Handmade in India”

Show: Local shops/markets, Online platform (mobile/laptop drawing),  
Use arrows to show movement of goods

- Add a world map or globe
- Show transport (ship/airplane)
- Draw arrows from India to other countries
- Label: *International trade / Export*



#### Title: Smart Village Model (ROLL NO- 15 TO 30)

Task: A model showing how innovation improves rural life, economy, and sustainability.

##### What to Include:

- Houses with solar panels
- Smart irrigation system (pipes/channels)
- School and health center
- Small startup unit (like food processing or dairy)



### 2. Theme Poster: Comparison of Haryana and Telangana

Poster will include picture presentation of these for Haryana and Telangana

#### A. Compare Geographical Features: Roll No 1-15

- **Haryana:** Fertile plains, agriculture-based
- **Telangana:** Plateau region, mineral resources, IT growth

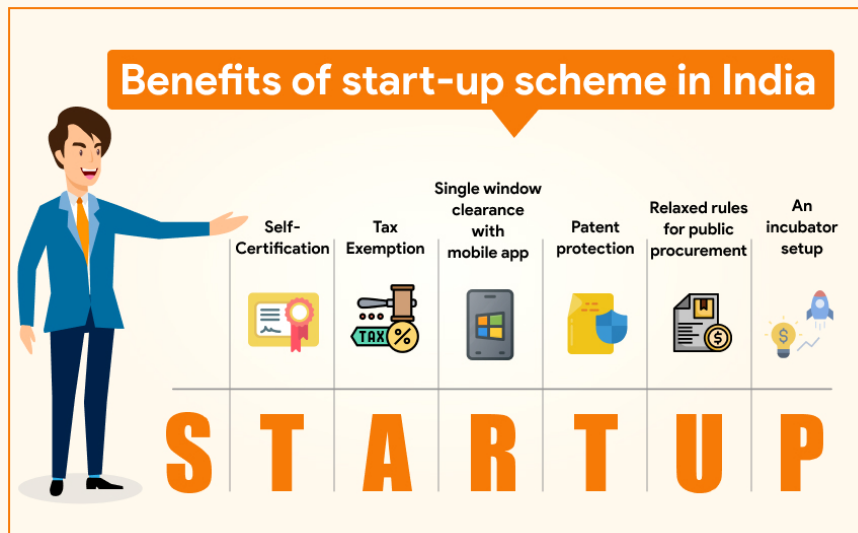
#### B. Compare Economical Activities: Roll No 15-30

- **Haryana:**
  - Farming (wheat, rice)
  - Agro-based industries
  - Rural startups



- **Telangana:**
  - IT industry in Hyderabad
  - Service sector growth
  - Startup ecosystem supported by T-Hub

### 3. Brochure: Government Support for Startups



Include:

- About Startup India
- Benefits for youth
- Importance in economic development

## FRENCH

### 1. Poster Project: “Le Futur en 2050”

Create a colorful poster on an A3 sheet showing 4-5 future innovations (robots, eco-cities, etc.) and label them in French.

Example labels:

- voiture volante (flying car)
- maison intelligente (smart home)

### 2. Bilingual Travelogue (Carnet de Voyage)

Design a bilingual (French/English) travel brochure that encourages tourists to visit both states Haryana and Telangana.

Content: Use French vocabulary for tourism like *un monument* (a monument), *un musée* (a museum), and *un parc national* (a national park).



### 3. Ma Startup Idéale” (My Ideal Startup)

Students create their own imaginary startup on an A3 sheet.

- Nom de la startup (Name of the startup in French)
- Probleme(What problem it solves)
- Logo + slogan in French
- (5–6 lines in French)

Exemple: **(Tech Idea)**

**Nom:** Smart Révision(C'est une application pour réviser avec l'intelligence artificielle.)

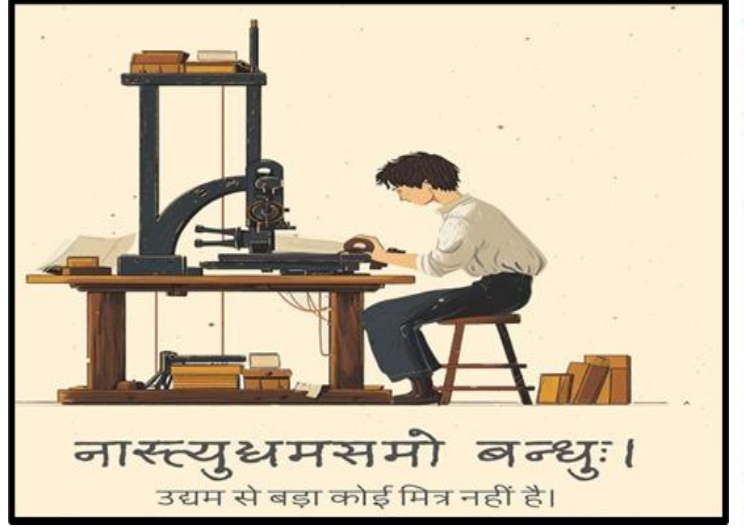
## SANSKRIT

### "नवीनता एव जयते"

#### भाग १ – नवाचार पर संस्कृत श्लोक

विषय वस्तु से संबंधित कोई तीन श्लोक संस्कृत श्लोक खोजें या लिखें जो रचनात्मकता, परिश्रम या नए विचारों से संबंधित हों। हर श्लोक का अर्थ हिंदी में भी लिखें।

उदाहरण: "उद्यमेन हि सिध्यन्ति कार्याणि न मनोरथैः" – काम इच्छाओं से नहीं, परिश्रम से पूरे होते हैं। (A3 Sheet)



#### भाग २ – स्टार्टअप शब्दों का संस्कृत शब्दकोश

एक छोटा शब्दकोश बनाएं जिसमें 20 आधुनिक स्टार्टअप शब्दों के संस्कृत अर्थ हों। (A3 Sheet)

उदाहरण:

Innovation → नवीनता

Entrepreneur → उद्यमी

Idea → विचारः

Success → सफलता

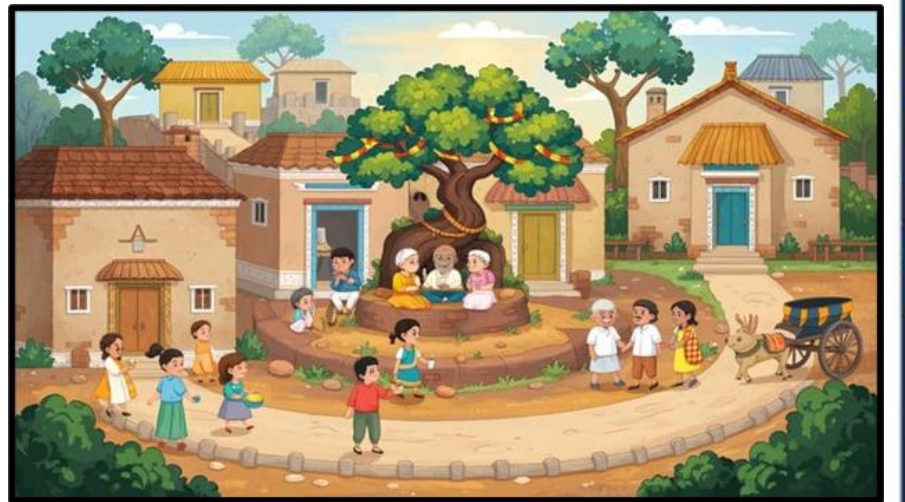
Risk → जोखिमः

#### भाग ३ – प्राचीन भारतीय आविष्कारक

किसी एक प्राचीन भारतीय आविष्कारक (आर्यभट्ट, चरक या पाणिनि) के बारे में संस्कृत में 5 वाक्य लिखें। दिखाएं कि उनका काम उस समय का "स्टार्टअप" कैसे था! (A3 SHEET)

#### भाग ४ – कहानी (कथा)

संस्कृत में 8-10 वाक्यों की एक छोटी कहानी चित्र सहित लिखें जिसमें एक छात्र अपने गाँव में छोटा व्यवसाय शुरू करता है। नीचे हिंदी अनुवाद भी लिखें। (A3 Sheet)



सुझाव: "रामः" या "प्रिया" जैसे

सरल पात्र चुनें। वाक्य सरल रखें – कर्ता + क्रिया + कर्म।

## भाग ५ – रचनात्मक पोस्टर (चित्रपट्टम)

"हरियाणा-तेलंगाना राज्ययोः परिधानानां सूचिं विरच्य, प्रत्येकं राज्यस्य चत्वारि चत्वारि प्रसिद्धानि परिधानानि चित्रैः सह संस्कृतभाषायां लिखत।"(A3 Sheet)



# COMPUTATIONAL THINKING & ARTIFICIAL INTELLIGENCE

**Objective:** Build digital skills in handling datasets, training models, and interpreting results in a user-friendly platform.

Creating a video showcasing the innovative start-up idea that could benefit India socially, economically, or technologically.

## 1. Training AI Model: AI for Sustainable Innovation

Use Teachable Machine by Google to train a model with two categories of images “Clean Environment” vs “Polluted Environment” in Haryana and Telangana.  
<https://teachablemachine.withgoogle.com/>

### HINTS:

#### Train the Model:

- Upload images to train the model.
- Capture or upload 10–20 images.

#### Test the Model:

- Upload new images to see if the model can recognize them correctly.

#### Instructions:

1. A short video clip showing the model in action.
2. A write-up (8-10 lines) in PDF format describing:
  - What did you train the model on?
  - How many images did you use to train?
  - How many images did you use to test?
  - Any challenges faced during training the model.

**NOTE:** Upload the video file with the name “Video\_Studentname” & PDF as “Report\_Studentname” in MS Teams.

## 2. Create a video on the topic: “My Start-up Idea for India” using Openshot Video Editor.

### Instructions:

- Think of a start-up idea that solves a real problem in India (e.g., environment, education, healthcare, rural development, technology)
- Gather images, short video clips, or graphics related to your idea.
- Use video effects, transitions, background sound (you can add your own voice narration)
- Keep the video length between 2–3 minutes.
- Export the video in MP4 format.

**NOTE:** Upload the MP4 video file with the name “StartupIdea\_Studentname” in MS Teams.

