

KENDRIYA VIDYALAYA SANGATHAN HYDERABAD REGION

SUGGESTIVE ACTIVITIES FOR STEM WEEK CELEBRATIONS 2025-26

- **The activities suggested here can be integrated into the regular functioning of the vidyalaya, not just confining them for the celebrations – to foster the scientific temper in children and improve the learning environment of the Vidyalaya.**
- **The activities which are not conducted in the assembly can be distributed among different classes (based on the activity) so that all classes need not spend time on all activities.. However, these activities can be taken up regularly in the school on rotation for different classes throughout the year.**
- **BANNERS TO BE DISPLAYED.....**

The drive link for downloading KVS STEM Week banners is shared below:

<https://drive.google.com/drive/folders/1zqKUKbe039G6VJuUt0zqNWd3c2vAVqOt?usp=sharing>

The link includes banners for:

- 1. Website**
- 2. X (formerly Twitter)**
- 3. Facebook**
- 4. Physical (12x6 ft. size)**

DAY 1 (14.07.2025)

1. Brief Introduction in Morning Assembly

2. Discussion on Kalam Program for IP Literacy and Awareness (KAPILA)

- ✓ Organize an interactive session during school hours to explain what Intellectual Property (IP) is and why it is important.

Introduction to IPRcourse is available in IGOT KARMAYOGI....will be useful

https://portal.igotkarmayogi.gov.in/app/toc/do_1143293168600186881737/overview?batchId=01432961537860403230

- ✓ Show short videos or invite an expert (like a patent officer) to explain patents, copyrights, trademarks, and how student innovations can be protected.
- ✓ Conduct small group discussions or poster-making activities to spread awareness about protecting original ideas.

3. Student-Led Projects (Making of Projects) through School Innovation Council (SIC)

- ✓ Announce a theme or problem statement (like waste management, clean energy, smart cities) and ask students to form teams.
- ✓ Provide time, materials, and mentorship through teachers or ATL in-charges.
- ✓ Guide students in the completion of small projects

4. Robotics/AI Demonstrations

- ✓ Conduct live demonstrations of simple robots, sensors, or AI-based models built by students.
- ✓ Invite local experts or alumni to showcase real-world applications.
- ✓ Organize a 'Hands-On' robotics corner during the science exhibition so students can try basic coding or assembling.

5. Display of Best Projects of Children

- ✓ Set up an 'Innovation Wall' or dedicated display area in the ATL or school corridor.
- ✓ Rotate exhibits every month to encourage more students.
- ✓ Display project models, posters, videos, and QR codes linking to short clips explaining the work.
- ✓ Include project titles, names of student innovators, and a short description.

DAY 2 (15.07.2025)

1. Idea Pitching Sessions (INSPIRE-style)

- ✓ Organize "Idea Pitching" events similar to the INSPIRE Award program, where students present innovative ideas to solve real-life problems.
- ✓ Guide students to prepare 2–3-minute pitches explaining:
 - What problem they're solving
 - Their innovative solution
 - Benefits and feasibility
- ✓ Teachers or a small jury panel can give constructive feedback.
- ✓ Record pitches and encourage students to apply for the **INSPIRE Awards-MANAK** scheme through official portals.
- ✓ Share selected ideas with the community in school newsletters or social media.

2. Hands-on Experiments at Middle and Secondary Stages

- ✓ Schedule practical sessions beyond textbooks, using ATL/Science Lab resources.
- ✓ Organize small working groups to perform experiments on topics like:
 - Basic robotics, circuits, sensor-based alarms, solar models (Secondary)
 - Everyday science experiments with water, air, magnetism, plants, etc. (Middle)
- ✓ Display simple DIY experiment videos on school smart boards.

3. Poster/Chart Making on “Science in Our Daily Life”

- ✓ Announce a poster/chart-making contest for different classes.
- ✓ Themes could include:
 - How science helps in clean water, food preservation, health, transport, communication, etc.
- ✓ Organize an exhibition to showcase posters in the school corridor or library.
- ✓ Select the best posters for inter-school exhibitions or competitions.

4. “My STEM Dream” Wall

- ✓ Create a dedicated wall or board titled “My STEM Dream”.
- ✓ Students can write or draw their future STEM goals — like becoming an astronaut, AI expert, robotics engineer, etc.
- ✓ Include a section for students to stick inspiring news clippings or bios of role models.
- ✓ Teachers can help by adding resources and career pathways for students’ dream professions.

5. Showcase Student Ideas & Inspirational Stories in Morning Assembly

- ✓ Pick one or two student ideas each week to present during assembly.
- ✓ Share short stories of young Indian innovators — for example, Gitanjali Rao (Young Scientist), or Ananya Jain (young entrepreneur).
- ✓ Teachers can assign students to research and narrate these stories in English to build speaking skills.
- ✓ Celebrate students who take part actively by giving appreciation certificates.

6. Selection of 5 Best Projects for the Year 2025-26

- ✓ From the projects made/presented by students in the presented on the first day, select the best 5 projects based on clear set criteria like: originality, feasibility, social impact, presentation- by a jury comprising teachers, ATL in-charge, and external mentors if possible.
- ✓ Announce the 5 best projects.
- ✓ Encourage these students to further develop their prototypes for regional/state-level exhibitions like INSPIRE, NLEPC, or CBSE Science Exhibitions.

7. Registration of KVs for VVM and Promotion for Students (Vidyarthi Vigyan Manthan)

- ✓ Ensure your school registers for the Vidyarthi Vigyan Manthan (VVM) competition.
[Vidyarthi Vigyan Manthan - VVM India's Largest Online Talent Exam](#)
- ✓ Complete planning for effective implementation to ensure that children perform well in VVM: like
 - Share syllabus, sample quizzes and study material with students.
 - Organize practice quizzes during zero periods or science club meetings.
 - Guide top scorers to participate at state and national levels.

DAY 3 (16.07.2025)

1. Quiz Competition on Biodiversity, Values, and Sustainability

- ✓ Organize a quiz competition for classes VI–XII (House wise teams) including buzzer rounds, rapid-fire rounds, visual rounds (pictures of plants/animals) for more excitement and award certificates or eco-friendly prizes like saplings or cloth bags to winners.

Suggestive topics:

- Local flora and fauna
- Biodiversity hotspots of India
- Sustainable development goals (SDGs)
- Conservation practices
- Core environmental values (reduce, reuse, recycle)

2. Field Trips/Field Observations Related to Soil, Plants, or Water

- ✓ Organize short visits to:
 - Nearby farms, nurseries, or botanical gardens
 - Local water bodies, lakes, or wetlands
 - Soil testing laboratories (if accessible)
- ✓ Ask students to observe, take notes, and record data on:
 - Types of soil, fertility, erosion signs
 - Indigenous plants and their uses
 - Water conservation practices in rural areas
- ✓ Compile field reports and discuss findings in class or through presentations.

3. Presentation on Soil Health in Morning Assembly / Science periods (KVs which have completed Soil Testing)

- ✓ Use the soil test data already conducted by the school.
- ✓ Select students to present:
 - The importance of soil health for agriculture and food security.
 - Simple ways to maintain soil fertility (organic farming, composting, crop rotation).
 - How students can spread awareness in their homes and communities.
- ✓ Display infographics or charts on soil composition, testing parameters, and findings on the school notice board.

4. Rashtriya Bal Vaigyanik Pradarshani (RBVP) Workshops

- ✓ Conduct RBVP orientation sessions explaining:
 - How to observe real-life problems: waste disposal, water scarcity, local pollution, etc.
 - How to convert observations into scientific questions and hypotheses.
 - The steps to develop working/static models: design, materials, testing, and presentation.
- ✓ Invite teachers or local experts to guide students on model-making techniques.
- ✓ Plan for effective conduct of school level RBVP to select promising projects for regional RBVPs.

5. Interaction with Local Farmers/Agronomists

- ✓ Arrange an interaction session on campus or during a field trip.
- ✓ Invite local farmers, horticulturists, or agricultural extension officers.
- ✓ Topics to discuss could include:
 - Indigenous soil practices (mulching, vermicomposting)
 - Crop rotation and mixed cropping
 - Use of organic manure vs. chemical fertilizers
 - Traditional seeds and sustainability
- ✓ Encourage students to ask questions and document the techniques discussed.
- ✓ Display a photo story or student write-ups from these interactions on the ATL/SIC notice board.

DAY 4 (17.07.2025)

1. Space Science Quiz

- ✓ Organize an inter-house quiz for classes VI–XII including visual rounds (satellite images, mission logos) and rapid-fire rounds and Award certificates and feature winners in the ATL/SIC bulletin Suggestive topics for the Quiz are:
 - India’s space missions (Chandrayaan, Mangalyaan, Aditya-L1)
 - Important ISRO scientists
 - Basic astronomy facts (planets, satellites, black holes)
 - Milestones in global space exploration.

2. One Day as a Scientist

- ✓ Organise students role-play as scientists from ISRO, DRDO, or famous space research personalities like Vikram Sarabhai, Kalpana Chawla, or Sunita Williams.They can:
 - Dress up as the scientist.
 - Prepare a 1–2 min talk about their life, work, and contribution.
 - Share “a day in the life of a scientist” — their research, challenges, and impact.
- ✓ This can be presented in the morning assembly/a

3. Talk by Eminent Experts (ISRO, Universities, etc.)

- ✓ Contact ISRO’s Outreach Division, NRSC,nearby universities (like IIST, IISc), or local astronomy clubs to invite experts for an online/offline talk.
- ✓ Topics could include:
 - Careers in space science.
 - India’s upcoming missions.
 - How students can get involved in amateur astronomy.
- ✓ Prepare students to ask questions and take notes.
- ✓ Share a write-up or video of the talk on the school’s website/magazine.

4. Role-Play or Storytelling on Scientific Breakthroughs in Morning Assembly

- ✓ Choose historic moments like:
 - Launch of Aryabhata (India's first satellite)
 - First Moon landing
 - Mars Orbiter Mission success
- ✓ Students can narrate the story dramatically, include dialogues, or present a short skit, linking the story to “what we can learn from this” — teamwork, resilience, innovation.

5. Thought for the Day: “India in Space” Facts in Assembly

- ✓ Share a few interesting facts like:
 - “Did you know India was the first Asian nation to reach Mars orbit?”
 - “ISRO launched 104 satellites in one mission — a world record!”
- ✓ Display these facts on the digital board or ATL notice board.
- ✓ Also encourage students to research and contribute new facts weekly.

6. Short ISRO Documentaries/ Videos + Discussion

- ✓ Screen short ISRO outreach videos (available on YouTube/ISRO website) like
 - Chandrayaan & Mangalyaan mission highlights.
 - Gaganyaan human spaceflight mission.
- ✓ After watching, organize a small group discussion:
 - “What challenges did scientists face?”
 - “What can students learn from these missions?”

7. PRAYAAS Ideathon: Brainstorming for Local Problems

- ✓ Organize small group brainstorming sessions under ATL/SIC called **PRAYAAS Ideathon**.
- ✓ Students can identify real-life local issues: waste disposal, traffic congestion, water conservation, local environmental concerns.
- ✓ Guide them through:
 - Observing the problem.
 - Mapping root causes.
 - Generating practical, low-cost, community-based solutions.
- Display best ideas on the ATL/SIC Wall and help students develop prototypes if feasible.

DAY 5 (18.07.2025)

1. Mathematics Quiz

- ✓ Organize a quiz for classes VI–XII (House wise) Including visual rounds (shapes, patterns), puzzle rounds, and rapid-fire questions and give certificates or prizes like math puzzles or books.

Suggestive topics:

- Number systems, geometry, algebra, statistics, famous mathematicians.
- Application-based questions: real-life uses of mathematics in shopping, architecture, budgeting, etc.

2. Activity Using PM SHRI Maths Kit

- ✓ Organise sessions wherein senior students demonstrate the concepts to juniors using Math resources and kits provided under PM SHRI for hands-on activities.
- Conduct interactive demonstrations in the assembly

3. Essay Writing on Great Indian Mathematicians

- ✓ Conduct an essay writing competition for classes VI–XII on topics such as:
 - Srinivasa Ramanujan’s contributions.
 - Aryabhata and ancient Indian mathematics.
 - Bhaskaracharya’s work in algebra and astronomy.
- Display winning essays on the school notice board or ATL/SIC corner/Maths lab.

4. Vedic Math Challenge, Puzzle Corner, Math Treasure Hunt:

- ✓ Organize:
 - **Vedic Math Challenge:** students learn and demonstrate fast calculation techniques.
 - **Puzzle Corner:** set up a dedicated board in a corridor/ATL area with weekly math puzzles or riddles.
 - **Math Treasure Hunt:** create clues based on math problems; solving each clue leads to the next location — can be done during Math Week.
- ✓ Reward winners to keep the interest alive.

5. Demonstration of a Simple Math Trick or Student-Led Quiz in Morning Assembly

- ✓ Demonstration by a student in the Morning Assembly:
 - Quick mental math tricks (multiplying large numbers, squaring in seconds, divisibility shortcuts).
 - Interesting math patterns like magic squares.
- ✓ Alternatively, do a mini quiz round with 2–3 questions for the whole assembly.
- ✓ Include “Did You Know?” math facts to inspire curiosity.

6. Exhibition to Highlight School Models for Various Programmes

- ✓ Display:
 - Math models: 3D geometric shapes, symmetry displays, graphs, math in architecture.
 - Projects linked to STEM: smart budgeting ideas, cost-effective design using math.
 - Club it with models from ATL projects, Science Day, or RBVP.
- ✓ Invite parents and local community to encourage students.

19.07.2025(SATURDAY)

- Awarding the winners of various competitions conducted during the week on 19th July (Saturday) including felicitating JEE Advanced and NEET 2025 Qualified students of KV.