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Propeller Technologies
Research & Development Pvt Ltd.

YOUNG SCIENTIST OF TAMIL NADU

RULES AND PROCEDURES

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YOUNG SCIENTIST OF TAMIL NADU

Rules and Procedures

The main aim of the Young Scientist of Tamil Nadu initiative is to inspire students to think creatively and explore real-world problems with curiosity and confidence. We encourage them to experiment with different technologies, materials, and styles of presentation so they can discover new possibilities **beyond the usual methods.** Through this journey, students learn to approach challenges with an open mind, build innovative solutions, and unlock their true potential. Ultimately, this initiative aims to nurture a generation that takes the first bold step toward becoming real innovators **who build solutions and not just projects.**

The following points outline the guidelines and requirements for the prototype

1) Proof of concept: All teams are required to submit a working prototype that serves as a clear proof of concept. Purely theoretical explanations such as "if we do this, it will work" will not be accepted. Everything presented on the day must be a fully functional model demonstrating the actual working principle of the idea.

2) Prototype Size and Space Requirements: The size of the working prototype may be small or large, as long as it clearly demonstrates your idea. There is no restriction on dimensions. However, if your prototype exceeds 4×4 feet, please inform the YST team in advance so that appropriate table and space arrangements can be made.

3) Prototype Clarity and Presentation Standards: Please ensure that your working prototype is clear, focused, and free from unnecessary artwork or decorative elements. The model should highlight the concept and functionality without distractions.

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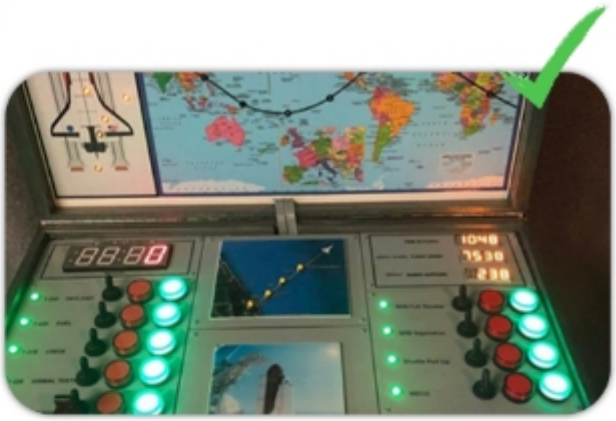
Models with less clarity

This projects contain too much **craft work** while the actual working principle is very simple. In some cases, students present **imaginary concepts** using craft materials instead of showing a real working model.

Models with more clarity



These are examples of POC prototypes where the **working principle is shown clearly without extra artwork.** The students also experimented with different materials, making the prototype more appealing and showing a higher level of understanding in building projects.

4) Usage of DIY Kits: Avoid using ready-made kits to build your projects.

5) Material choice: Thermocol and cardboard are commonly used by students to build projects. One of the key objectives of YST is to encourage students to explore and become familiar with other materials like PVC, foam, wood, metal, and more. Using such materials helps them take a step forward in prototype building and can contribute to higher scores. Students may still use thermocol or cardboard if needed, but the model must be neat and look professional.

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Scoring and Evaluation

Students will be evaluated out of 100 marks. These are the categories we assess, and we have also mentioned the criteria for scoring higher marks in each category.

Evaluation Criteria	Max Marks	High Marks (Top Range)	Moderate Marks (Middle Range)	Low Marks (Lower Range)
1. Selection of suitable materials and creativity in construction	20	Use of diverse materials like wood, PVC, metal, foam board, cardboard, neat, creative, strong construction.	Mix of basic & alternative materials, cardboard thermocol used neatly.	Mostly thermocol/ plastic/ready-made kits, weak construction
2. Relevance to story theme & real problem solving	15	Strong connection to theme; identifies a real problem and provides an effective solution.	Partial connection to theme; solution basic or incomplete.	Weak or no relevance; imaginary problem; no real solution.
3. Understanding & ability to explain how it works	15	Clear, confident, correct explanation showing full understanding.	Partial understanding; minor errors; explanation lacks confidence.	Unable to explain mechanism; incorrect or memorized explanation.
4. Originality, creativity & effectiveness of solution	20	Highly original idea; innovative features; practical and impactful solution.	Some originality; solution works but is basic or common.	Copied or generic idea; no innovation; solution ineffective.
5. Ability to answer questions & justify design choices	15	Confident answers with logical justification of materials, design and mechanism.	Answers some questions correctly but lacks depth; partial justification.	Cannot answer or justify decisions; unclear reasoning.
6. Clarity, neatness, teamwork & overall visual impact	15	Very neat, organized and visually appealing; strong teamwork and smooth presentation.	Neat but could be more organized; teamwork visible but inconsistent.	Untidy model; confusing setup; poor teamwork or unclear presentation.