

6th NATIONAL SCIENCE BEE



RUBE GOLDBERG MACHINE

MODULE GUIDELINES

INTRODUCTION

Are you wondering what Rube Goldberg Machine (RGM) is? Have you ever been astonished by the creative and elaborate plans of Tom to catch Jerry? That's an example of RGM.

Combination of innovation with science coupled with lots of fun is the basic definition of Rube Goldberg Machine (RGM). It is a module that allows participants to showcase their geeky-ness and express their knowledge through innovative designing of a real-life model. Participant teams would be asked to bring their own material to make their RGM. Their machine must perform at least 10 different steps to achieve a desired task. They'll be given 1 hour to set up their material.

In order to make this module more interesting and diverse, participants can select any one of the following tasks for their machine:

- Cutting a rope/string.
- Popping a balloon.
- Extinguishing a candle.
- Lifting a small weight.

RULES:

- No items can be borrowed from another team or from the management team of Science Bee. Participants must bring all the required material along with them.
- A team cannot choose more than one topic and hence only one project must be submitted.

- The machine must be brought in completely disassembled form.
- Each team will have an hour to assemble their machines. No team will be allowed to assemble it once the time is up.
- Teams must test out their machines before the event to avoid any inconvenience.
- Once the machine is set, teams will then be asked to activate their machines turn by turn.
- Each team will be given 3 trials.
- If the machine fails to perform the desired task in all three trials, the team will lose marks.
- No changes can be made to the projects during the trials.
- Marking will be done based on how robust, complex, efficient and original the idea is.
- After 10 steps, for every additional step one extra point will be awarded to the team.