SPACE TECHNOLOGY AND ASTRONOMY CELL



Student's Activity Centre - 001, North Campus, IIT MANDI Kamand, HP India 175005

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School Championship

A competition of three rounds for students at the high school level.

00:00, April 22, 2022 IST - 23:59, April 24, 2022 IST

Brief Overview

The school championship is an event organized specifically for high school students (classes 8 to 12). It will be held online between 22nd April and 24th April, and students will compete in teams. There will be three rounds, one each day, with scores given to teams based on their performance in each round. After each round, a scoreboard will be maintained and updated by adding the teams' scores for that day's round. School contingent teams will compete to be one of the top 3.

Complete details of all the events (such as start & end times, meeting links, etc) along with example questions for better understanding of what each round involves, will be given to all registered teams sufficiently in advance.

<u>We're here to help you learn!</u> Usage of books and the internet to solve the given tasks is allowed in all 3 rounds. Additionally, we will also provide reference material explaining any required concepts for some challenges, ensuring that the questions are solvable and are at the high-school level.

Participation Criteria

- Any student of class 8-12 can participate in this event.
- All participants within a given team must belong to the same school / institute.
- The team size can be 3 or 4 members.
- There is a registration fee of ₹ 80/- per team.
- Registration link: https://forms.gle/adaC9dCKKBebMTDLA

Note: Any **one** member from the team (team leader) can fill the google form.

- A volunteer from the organizing team will contact you over WhatsApp at the number you filled in, to inform you about the event and the payment details to AstraX over UPI.
- The registration was previously also conducted over the *dare2compete* platform. Participants who completed this form *are still registered and need not worry*.



Round 1 - Phobos and Deimos

In this level, you will be given 2 sets of pictures. In set A you will be given images of celestial bodies. You are required to find objects/phenomena on earth having resemblance to the given images. The resemblance may be visual, underlying processes or any other details of the object in the given image. In set B you will be given images of objects on Earth and you are required to find the astronomical counterparts.

For each image you submit, you have to write a short description about how you felt that they are similar.

Rules and regulations -

- 1. You cannot use images of paintings for your comparisons in either set.
- 2. In Set B you may use the artist's description of astronomical bodies, but not for Set A.
- 3. All the submissions are required to be submitted in the given format only.
- 4. Participants who submit inappropriate images or foul language will be disqualified.

Each submission should have with it a title and a short description of how you felt that they are similar.

Judging Criteria -

- 1. The grading will be done based on the image and description. Images without description will be awarded 0 points.
- 2. You will be awarded 0 points for non-submissions for any prompt, and the max points per prompt will be 10.
- 3. Uniqueness will be one of the criterion for evaluation, i.e.; if more than one team has submitted the same image for a given prompt then that entry will receive lesser points.
- 4. There will be a total of 16 prompts. Set A and Set B both will have 8 prompts each.



Round 2 - AstroQuiz

This is an online quiz, where all the teams will be asked fascinating questions from the various branches of astronomy. It will be a single round quiz where questions will be of objective and short answer type. The teams will compete against each other. The time duration of the quiz will be intimidated to all teams prior to the event.

Rules and regulations -

- 1. Participants must be present using the specified meeting link at least 5 minutes prior to the commencement of the quiz.
- 2. As it is an online event, usage of books and internet will be allowed (questions shall be framed accordingly), but sharing answers to other teams, or any other form of cheating and/or misdemeanor will be inspected, and if confirmed, will lead to disqualification straightaway.
- 3. The Organisers reserve the right to change the rules of the quiz at any point of time with a prior intimation given to the teams.
- 4. In case of any dispute the decision of the organisers will be considered final.

Judging Criteria -

Teams will be intimidated about the marking scheme prior to the guiz by the guizmaster.

If there are 2 or more teams that occupy the top spots then there will be an additional bonus round where the teams may be asked 2 or more questions.

Instructions:

- Meeting link and additional details will be mailed to all the teams before the event.
- The first 5-10 mins will be given for instructions, the quizmaster will tell you how to use the platform.
- For the whole duration of the quiz participants will be connected by Google Meet.



Round 3 - Navigate by the Stars

"Curiosity lies in the eyes of the beholder". Ever dug deep into the world of stars and constellations? This final round of the school championship judges it all for the astronomy enthusiasts.

We've heard of sailors and explorers using the constellations to identify directions and their location on earth in the days before modern technology was available. But have you ever been curious to try it yourself? A basic understanding of geometry and a few popular constellations will help you become aware of Earth's location in space and your coordinates too.

In this round, teams will be given a series of images / planetarium maps of parts of the night sky, with popular constellations and possibly some other features such as the horizon or annotated directions also present on the image. Based on the orientation of stars, and the accompanying description, they will be required to find some geographical / spatial / timestamp information regarding where/when the sky from a place on earth may look like this.

Rules and regulations -

- As it is an online event, usage of books and internet will be allowed (questions shall be framed accordingly), but sharing answers, or any other form of cheating and/or misdemeanor will be inspected, and if confirmed, will lead to disqualification straightaway.
- Organizers reserve the right to modify the rules at any point in time, with a prior intimation to registered participants.
- In case of any dispute, the organizers' decision will be considered final.

Judging Criteria -

More points would be awarded to the team who has a more accurate location (in terms of coordinates). Valid Reasoning and working of solutions wherever asked.

For each image there will be certain hints/information that shall be helpful in determining the coordinates of the place on earth.

The type of hints may vary from picture to picture according to the situation.



In case of any dispute, the decision of the organizing committee will be final.

In case of any doubt/concern regarding the event, either call the coordinator or write an email to all@astrax.in

Event Coordinators

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