

In 2019, under the NameExoWorlds campaign, the star HD 100777 in the Leo constellation was named as Sagarmatha, the Nepali name of Mt. Everest and the exoplanet revolving around it was named as Laligurans, the Nepali name of the flower Rhododendron.

Welcome, brave explorers! Humanity has advanced so far that we are now exploring the deepest parts of the universe, venturing beyond the solar system to new and mysterious worlds.

Your mission is to embark on an exciting interstellar journey to Planet Laligurans and back. Over the years, many missions have been attempted but none have succeeded in returning with valuable information from this distant world. Now, it is your turn.

Instructions

- For this voyage, you will traverse different aspects of this school, each place representing a unique cosmic destination.
- A map will be provided to you.
- Along the way you will face challenges that must be solved.
- Successfully completing the problems will grant you necessary information to continue your journey.
- At some stops, you will encounter aliens who are not able to communicate in your language; they will only react when you show them the correct answer to the given problems.
- All the solutions and materials from each station must be collected and brought to the final destination.
- One minute on this voyage is equivalent to 1 earth day.
- Respect the plants and properties of the school; no plants and school properties should be harmed.
- Stay within the designated boundaries of the school.
- You have 3 hours to complete this expedition. After 3 hours, a bell will ring. Once the bell rings, you are required to leave all the details, clues and solutions you've collected or solved at the place where you are and stay at the same place until someone comes to collect you.
- Enjoy the adventure and embrace teamwork!

Data

Mass of star Sagarmatha = $1.032 M_{\odot}$

Radius of star Sagarmatha = $1.033 R_{\odot}$

Luminosity of star Sagarmatha = $0.946 L_{\odot}$

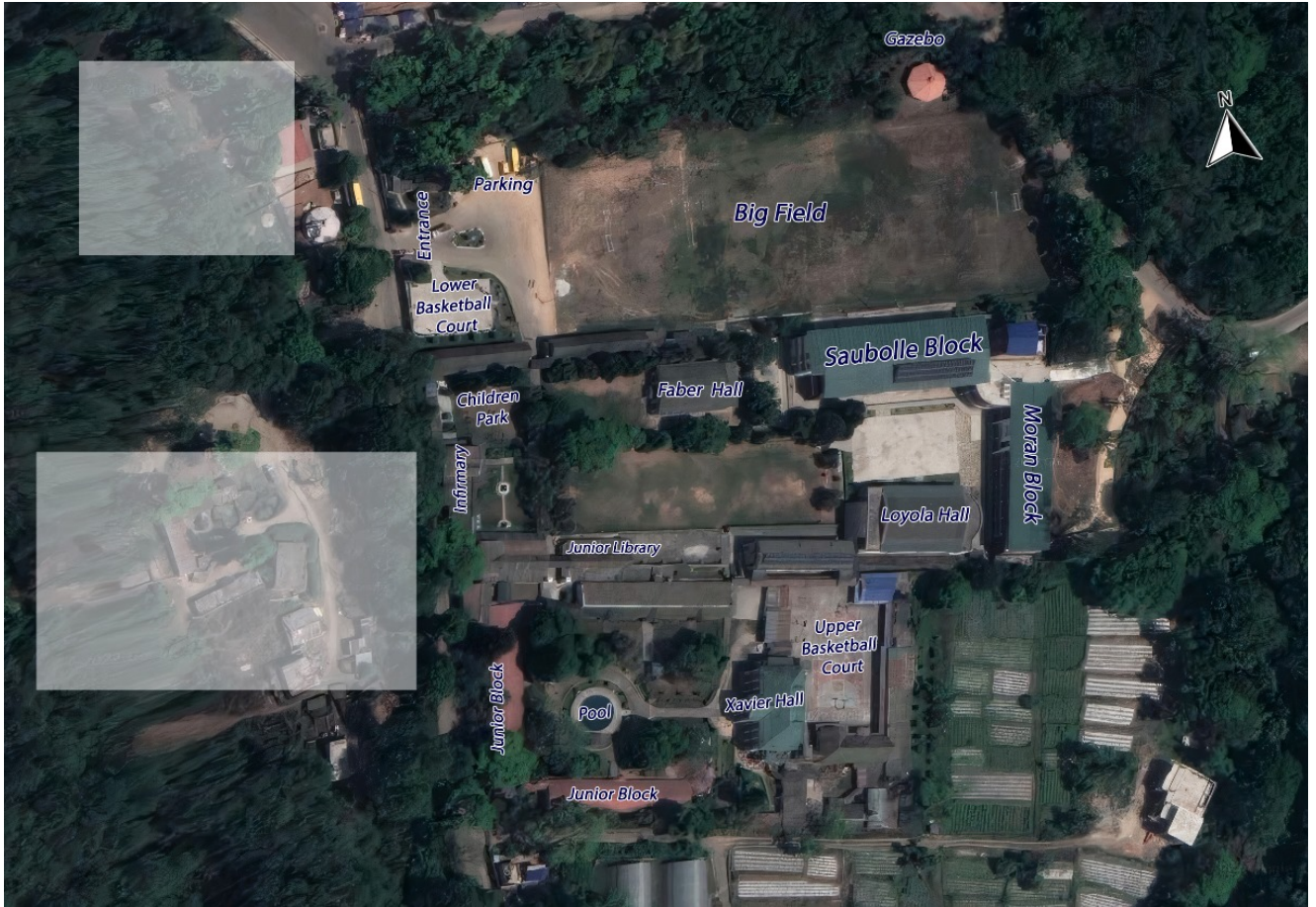
Apparent magnitude of star Sagarmatha = 8.42

Semi-major axis of the planet Laligurans = 1.03 au

Absolute visual magnitude of the Sun = 4.83

1 parsec = 3.26 light years

School Map





Points: 62

Time: 3.0 Hours

First Destination: Moon

Big field represents the Moon. Use the map given to go to the Moon.

Communication Breakdown

As your spacecraft touches down on the lunar surface and you begin deploying your lunar base, something unexpected happens - your communication system suddenly malfunctions, causing a complete breakdown in your ability to contact Mission Control back on Earth.

At this point, you have two options:

1. Search for the hidden clues left behind by previous explorers to guide you through the next destination.
2. Wait for 30 days until your communication system is restored and you can receive further instructions from Earth.



Points: 62

Time: 3.0 Hours

Clue on the Moon

Rearrange the letters to form the words to get the clue.

OG OT HET ORMAN LBCOK. ORMAN LBCOK PRESERETNS LAPENT RAMS. OKOL ORF HET OTINCE AOBDR.



Points: 62

Time: 3.0 Hours

Getting the Spacecraft

Congratulations on reaching the Red Planet! But the journey is far from over; your current spacecraft is not equipped to make the long voyage to Planet Laligurans. The Martians have a special spacecraft perfect for interstellar travel to Laligurans, but they will only lend it to you if you can solve their problem.

The Martians want to calculate the distance to the star Sagarmatha from Earth and the period of revolution of the exoplanet Laligurans. Help them with these two astronomical calculations to gain access to their interstellar spacecraft.

The answer must be in light years and earth days. Show your answer to the alien standing beside the lockers for the next clue.

Use the data provided to you at the beginning of your journey.



Points: 62

Time: 3.0 Hours

Clue in the Locker

Class 12 D is planet Laligurans.



Points: 62

Time: 3.0 Hours

Escaping from Planet Laligurans

Congratulations, Explorers!

You've done it, but all of a sudden, a crisis unfolds on the planet, and you must escape! Tick the correct logo from the given options and solve the crossword puzzle to find your way back to Earth. The next clue is the word in the bold column.



Points: 62

Time: 3.0 Hours



1.

2.



3.

4.

