



DRAGON'S DEN



TEAMWORK AND COMMUNICATION

MISSION DESCRIPTION

Participants can be divided into teams of 1 to 5 people. They will then select, or be assigned to, a panel to present their pitch (see appendix). Teams will brainstorm an idea according to the themes of one of the streams and present their idea to the class.

Difficulty: **MODERATE**

Duration: **90 MINUTES**

Materials: **MINIMAL**

MISSION PREPARATION

TIMELINE

Breakdown	Duration
Assign teams and streams	10 minutes
Team research, brainstorming, and development of ideas	45 minutes (30 minutes brainstorming and research, then 15 minutes preparing presentation)
Team presentations	30 minutes
Team vote	5 minutes
Total	90 minutes

GOALS

By the end of the activity, participants will have a broader understanding of existing space technologies, the impact space technology has on Earth, and innovative solutions for the future of space exploration.

OBJECTIVES

MATERIALS

- Paper and pencils, or computer
- Access to the Internet and/or the library for brainstorming and research purposes

- Learn about existing space-related ideas and technologies
- Learn how space-based projects can affect people on Earth
- Brainstorm new applications for technology in space and space-based technology on Earth
- Think about the role of private industry in space, and how space is being commercialized



BACKGROUND

This activity can be conducted in teams or by individuals. Each team will create a pitch for a new space-related idea or technology. Teams will then try to convince an imaginary panel of experts to implement their idea. The teams can vote for the best idea after all ideas have been presented. In this activity, creativity is encouraged!

MISSION INSTRUCTIONS

1. Divide participants into teams of 1 to 5 people. Each team will be assigned a stream. Teams can each choose a different stream, or the same one for added competition.
2. Brainstorm and conduct research to develop an idea. Teams prepare a pitch to present. The teams will share their presentations. Discuss the advantages and disadvantages of each idea and offer constructive feedback.
3. The teams will vote on whose presentation was the best. Alternatively, there need not be any vote at all. Pitches can be evaluated individually.

APPENDIX

STREAM DESCRIPTIONS

Stream One: Astronaut Panel

You have travelled to Canadian Space Agency headquarters to pitch your idea to a panel of astronauts. They're looking for new ideas to help them live, work, and study in space. Your idea may help them on Earth, during launch to space or return to Earth, in orbit, on the Moon, or on Mars. Make sure your idea is achievable and budget-friendly, and can help the astronauts in some way.

Things to consider:

- Prioritize utility and practicality
- Smaller-scale applications
- You may wish to apply a known technology in an interesting new way

Stream Two: Engineer Panel

You would like to contribute some new technology to an international space mission or space project (e.g. the International Space Station, rover mission, asteroid sample-return mission, space telescope). You may be a team of professors and students at a university, or perhaps you are a small business. Convince a team of engineers and scientists at the Canadian Space Agency to hire you as a contractor to build your new technology.

Things to consider:

- How an existing technology from Earth can be used in space
- What will future engineers and scientists need to help them explore space?

Stream Three: Politician Panel

You are in a meeting with some Canadian politicians discussing the next federal budget. Convince them to allocate some funding to your new space technology.

Things to consider:

- How space-related ideas and technology can be used to help people on Earth
- How investing money into space projects can help people on Earth and in space

Stream Four: Industry Panel

The CEOs of several private space companies have gathered to hear your pitch. These billionaires have a lot of money to invest in your idea, but they'll only invest if they think you can make them even richer. How can you utilize and commercialize space to make money?

Things to consider:

- Prioritize profit
- What resources does space have to offer us?
- What is the role of private industry within the international space market?

Stream Five: Alien Panel

You have been abducted by aliens and find yourself in a large chamber inside one of their spacecraft. In front of you is a panel of extremely wealthy extra-terrestrials. These intergalactic friends have abducted you in order to hear about your idea. Pitch your idea to the aliens, and they'll bring you back safely to Earth. If they like your idea, they'll implement it! They have unlimited resources, so be creative!