

Mars Startup School

Challenge 4
—
Mentorship

**Let's Imagine the
Future of STEM
Education in Canada**

Welcome to the **Mars Startup School.**



As students, you have the experience and creativity to create a better education system for STEM (Science, Technology, Engineering & Math). As we imagine a new society on Mars we will need new schools. This is a unique opportunity to reimagine school from the ground up. It is up to you to design the components of Mars Startup School.

This mission requires courage, curiosity and creative thinking.
Let's blast off and get started!

Your Startup Design Kit.

Designing a new education system is not an easy task, so we created this workbook to help you through the Challenge. It consists of:

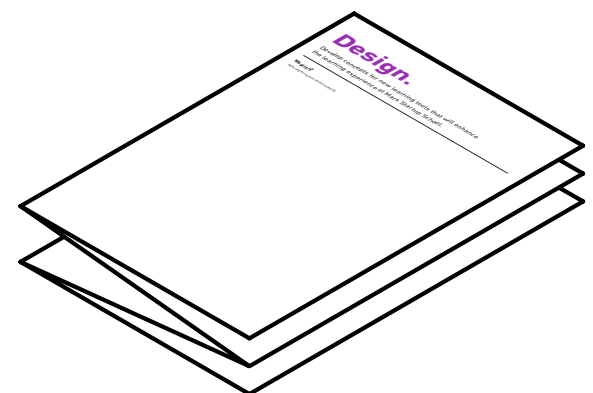
1 Student Workbook.

The *Student Workbook* is your guide throughout this Challenge. It includes all the information required to develop and communicate your ideas.



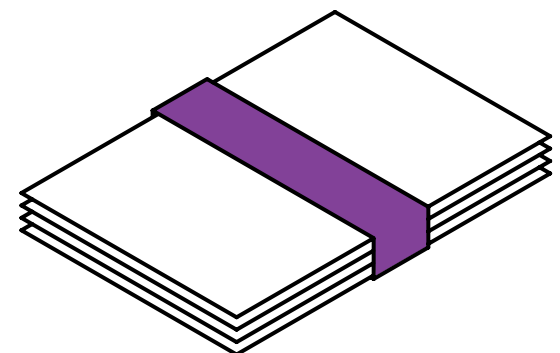
2 Worksheets.

The *Worksheets* will help your team organize your ideas as you design a component of Mars Startup School. They build on one another to ensure your team creates a solid concept.



3 Precedents Cards.

Precedents Cards showcase projects from around the world to provide inspiration and spark creativity within your team. These can be helpful at any point in the process.



Mars Startup School Challenge.

Here are the steps your team will follow throughout the day to design a component of the Mars Startup School and totally reimagine STEM education. Let the Challenge begin!

1

Meet Your Team! (25 min.)

Meet Your Team! Get to know your teammates, their special talents and their passions.

2

Design Criteria. (40 min.)

Focusing on a component of Mars Startup School, your team will define design criteria, which will create a framework for your design concept.



3

Concept Design. (60 min.)

Building on your design criteria, your team will design a solution, experience or team that will transform STEM education.

4

Share. (45 min.)

Gather with other Mars Startup School teams who have worked on different components of the school. Share your solutions and see how they could all work together.

!

There are many unknowns throughout this Challenge, so don't be limited to the tools provided in the Mars Startup School Design Toolkit. Be creative and have fun!

Step One.

Meet Your Team!



Teamwork and collaboration are key to the success of this Challenge. Spend 25 minutes to get to know your team.

Introductions (5 min.)

Get to know each other and note the special talents each of you will contribute to the team. Quickly go around the table and share:

- Your name
- Where you go to school
- One special talent/strength

Take note of everyone's special talents because this can be helpful in the design process.

Play a Game (10 min.)

Two truths and a lie is a great game to help break the ice and loosen the mood on your team.

- Everyone write 2 truths and one lie on Post-its
- Go around the table and have members of the team guess the lies

Make sure everyone at the table has a chance to play before moving on to **Step 2.**

3. Discuss Your Vision for Mars Startup School (10 min.)

Before your team gets down to work, take a few minutes to think about how cool this challenge is... to design a Startup School on Mars. Imagine the possibilities of creating a new school. In what ways will the school you build on Mars be different from your school here on Earth? Write down the first ideas that come to mind and discuss as a group to get the creativity flowing. Make sure to take notes.



Brainstorm Tips & Rules.

Here are a few brainstorming tips to remember before your team begins imagining Mars Startup School:

- **Be open, honest and imaginative.**

When completing the Challenge there are no right or wrong answers. Always be polite and respectful.

- **Forget about today's reality and dream big!**

Think about how much things have changed in your lifetime and imagine how much they will continue to change in the future.

- **Take it to heart.**

This is an opportunity to influence the next generations in a positive way. It's not often you're asked to contribute to a brighter future for Canada's youth, be thoughtful.

Step Two.

Design.



Now that your creativity is flowing, it's time to focus your efforts on one component of the Startup School. The component that you will be focusing on is Mentorship.

Students look to their friends, teachers, family, members of the community and aspirational characters for support and inspiration to navigate the school experience, stay healthy, happy, motivated and prepare them for life after school.

It is your job to identify a team of people (aside from teachers) who will help you achieve your personal and academic goals at the Startup School.

Instructions: Our Mentor Criteria (40 min.)

Use the **WORKSHEET: OUR MENTOR CRITERIA** to think about what you want to achieve while in school and who might be an ideal mentor to help you reach your full potential.

- Read each question on the worksheet aloud.
- Spend 2 minutes on each question and encourage everyone on the team to write as many ideas as possible onto Post-its.
- After writing ideas for each question, have everyone on the team place their ideas onto the worksheet and cluster similar ideas.

Summarize the key ideas and features at the bottom of the page to define your mentor criteria. Mentor criteria may include the qualities and characteristics of your ideal mentor, what they will provide and how you interact with them. You can write directly on the poster!

OUTCOME: Define the goals you want to achieve and the ideal mentors and mentorship programming that can help you achieve your goals.

Design.

Create your support team. Who can help you achieve your personal and academic goals?

Our Mentor Criteria

Think of a few people who have mentored you and describe how they helped you.

Consider people in and out of school who helped you imagine, understand or see something new.

What do you need the most help with in your school life?

Consider people in your community, school or family who could help you.

What goals would you like to achieve while in school?

Consider who can mentor you to help reach your goals and what support you will need.

How has your curiosity around STEM been sparked in the past?

Consider what sparked your curiosity and how it can be replicated at Mars Startup School.

What qualities do you want in a mentor?

Consider the people you've identified throughout this process and what qualities you feel are important.

How do you interact with your existing mentors?

Consider how you will meet them and interact with them over time.

Our Mentor Criteria.

Describe the qualities of your ideal mentors, how they help you achieve your goals and how you will interact with them.

Step Two Cont'd.

Concept Team.



Now that you have some clear ideas about what you want to achieve at Mars Startup School and who might be an ideal mentor, it is time to create your team.

Instructions: Mars Startup School Team (60 min.)

Use the **WORKSHEET: MARS STARTUP SCHOOL TEAM** to help you define who you will include in Mars Startup School to help you achieve your personal and academic goals.

- Complete the worksheet and name each team member, identify what they will help you with, and describe their qualities, how you interact with them and how they help you. Encourage your team to build upon ideas from the previous brainstorm sessions.
- At the bottom of the page define the mentorship program that may be offered at Mars Startup School and how your team members are involved.
- If you have any additional notes that help describe the role of the mentorship team and the program, add it to the worksheet.

Don't be limited by the questions on the poster. If you feel something else should be included or communicated about your concept - add it!

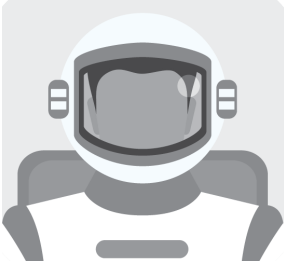
OUTCOME: Identify 5 members of Mars Startup School team that will support you in achieving your goals. Understand what support students need to reach their full potential.

Design.

Get specific about who you will invite to help you achieve your personal and academic goals at Mars Startup School.

Mars Startup School Team.

Name _____



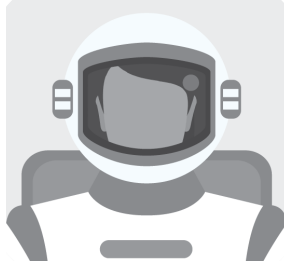
Area of life/school they help with

Unique qualities

How we interact

How they help...

Name _____




Area of life/school they help with

Unique qualities

How we interact

How they help...

Name _____



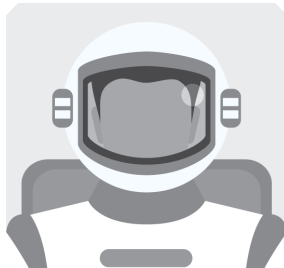
Area of life/school they help with

Unique qualities

How we interact

How they help...

Name _____



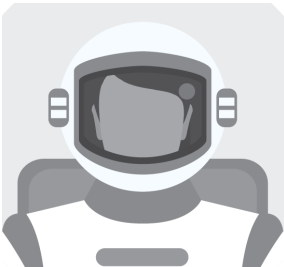
Area of life/school they help with

Unique qualities

How we interact

How they help...

Name _____



Area of life they help with

Unique qualities

How we interact

How they help...

Additional Notes
Add any extra notes you feel are relevant to describe your Mars Startup School Team.

Our Mentorship Program

What mentorship programming will be provided to students at Mars Startup School and how does it work?

Step Three.

Share.



Summarize your Challenge and ideas to share with the other teams in Mars Startup School. Each team will only have **3 minutes** to present their final concepts, so be sure the team captures and communicates the most important features of your design!

Instructions: Share (45 min.)

Use the **SHARE WORKSHEET** to help you summarize your ideas. This should only take a few minutes to help you recap your ideas. You can use the other posters to help you present.

- Restate the design Challenge in your own words.
- Create a network diagram that demonstrates how your mentors are connected to you and the community and describe how your team aligns with the criteria you identified at the bottom of the **WORKSHEET: OUR MENTOR CRITERIA**.
- Describe how your Mars Startup School team will change the education system on Earth and their impact on future students.

Gather with the other teams in your Startup School community to share solutions and have a closing discussion about the future of STEM education.

OUTCOME: Summarize the key ideas your team developed throughout this process and communicate your ideas to the other teams.

Share.

Summarize your Challenge and ideas to share with the other teams.
This should include the most important features of your design!

Our Team Summary

Our vision for Mars Startup School is...

Summarize your Mars Startup School vision.

Our design Challenge was...

Restate your design Challenge in your own words.

Our mentor criteria...

Summarize key ideas from your mentor criteria.

This will be different from the education system on Earth because...

Describe how your team will transform the educational
experience and how it differs from the traditional system.

Create a network diagram.

Create a diagram that illustrates how the mentors connect
to you, the community and Mars Startup School.



Let's Wrap It up!

Thank you for participating in this Youth Summit and contributing ideas that will help shape the future of STEM education in Canada.

Before you depart please gather the worksheets, Post-its, sketches and notes your team produced over the course of this Challenge. **Place everything back on the table in order.**



Next Steps.

Canada2067

Believe it or not, **your ideas can influence change.** The ideas you produced today will be collected, captured, summarized and presented to policy makers from across Canada to help shape the future of STEM education.

How to Stay Involved.

If you enjoyed taking part in the **Canada 2067** Youth Summit and completing Mars Startup School Challenge you can stay involved in a number of ways:

- Host your own Canada 2067 Startup School workshop by downloading the materials we used today! www.explorecuriosity.org/canada2067
- Host a conversation about STEM learning using the Canada2067 Conversation Guides. Choose from: STEM and Everyday Life; The People We Learn From; and STEM and the Student's Role in Learning. www.canada2067.ca/en/are-you-a-student/#youth-workbooks
- Join us on social media to raise awareness about Canada2067 initiatives. Support us [@Can2067STEM](https://twitter.com/Can2067STEM). Together we can make difference! [#Can2067](https://twitter.com/Can2067)
- Learn more about STEM opportunities through CurioCity career profiles. www.explorecuriosity.org/canada2067





canada2067

The science of a successful tomorrow

Canada 2067 Startup School

Tweet your ideas.

#Can2067

Stay engaged.

Canada2067.ca