



YOUR IDEA, OUR WORLD.

Teacher Guide (Grade 6 - 8)

What is Solve for Tomorrow?

Contest Overview

Samsung's **Solve for Tomorrow** contest is a global initiative inspiring elementary and high school students to apply STEM-based learning toward real-world challenges that impact their communities.

The contest invites students to showcase their creativity, innovation, and passion by developing ideas and inventions for a better world.

The 1st-place winner of Samsung's Solve for Tomorrow receives \$50,000 in Samsung Vouchers and/or Samsung products for their school, which is named **The School for Tomorrow**. It's a distinction your school can enjoy for a full year.

Your Idea, Our World.

Samsung is committed to sustainability, promoting health and well-being, and supporting equity-seeking groups through innovative technologies. Small actions can lead to significant changes, and Samsung is making strides toward a healthier, more sustainable, and inclusive future.

Samsung encourages students to submit ideas addressing local issues, including sustainability, well-being, and solutions that support equity-seeking groups.

What solutions will your students propose to make a positive impact?

What is Solve for Tomorrow?

How Does It Work?

1. **Form a team:** Students from the same school between the ages of 10 and 18 (grades 6 to 12) may enter as a team. Teams can include up to 50 students – an entire classroom is acceptable. A submission must be sponsored and submitted by a teacher at the school.
2. **Judges evaluate entries:** A judging panel chooses 12 teams as Regional Finalists for the second round. From there, 4 teams are selected as National Finalists. These National Finalists can attend a workshop that guides them through the third round of the contest.
3. **Finalists submit videos to win:** Finalists each produce a video summarizing their entry, from which judges choose the winners.

What Are The Prizes?

Grand Prize (1st Place): The 1st-place winner of Samsung's Solve for Tomorrow contest receives \$50,000 in Samsung Vouchers and/or Samsung products for their school, which is named The School for Tomorrow and holds the title for a year.

2nd & 3rd Place: The 2nd- and 3rd-place winners of each receive \$10,000 in Samsung Vouchers and/or Samsung products for their school.

Regional and National Finalists: Twelve Regional Finalists each win \$2,500 in Samsung Vouchers and/or Samsung products for their school, and four National Finalists each receive \$5,000 in Samsung Vouchers and/or Samsung products for their school.

Fan Favourite: The public gets a chance to vote on their Favourite National Finalist entry, and the most popular finalist will win \$5,000 in Samsung Vouchers and/or Samsung products for their school.

Why Should My School Enter?

This contest fosters a sense of responsibility, environmental stewardship, and social awareness in your students. By supporting your school's entry, you contribute to an experience that extends beyond the classroom, preparing students to tackle future challenges in health, sustainability, and advocating for equity-seeking groups.

Curriculum Connections

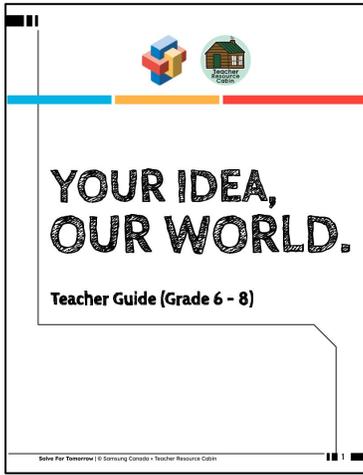
The provided resources for the Solve for Tomorrow contest are created to encourage students to use STEM to identify solutions to real-world problems.

You should encourage your students to apply the knowledge they've gained in their Science, Social Studies, or Health classes when developing their STEM-based solutions. Here are some ideas:

S	<ul style="list-style-type: none">• Prompt students to incorporate science concepts they've learned, such as the principles of energy conservation, into their solution ideas.• Encourage students to apply scientific principles learned in class, such as understanding the scientific method and analyzing data, to inform the design and development of their solutions.
T	<ul style="list-style-type: none">• Utilize technology tools and applications to enhance the functionality and effectiveness of their solutions. This could involve coding, designing apps, or leveraging digital tools for data analysis.
E	<ul style="list-style-type: none">• Emphasize the importance of the engineering design process, encouraging students to iterate on their solutions, consider constraints, and develop prototypes that address the identified challenge.
M	<ul style="list-style-type: none">• Integrate mathematical reasoning in the planning and evaluation of their solutions. This could involve calculations related to costs, benefits, environmental impact, or other quantitative aspects of their proposals.

Getting Started

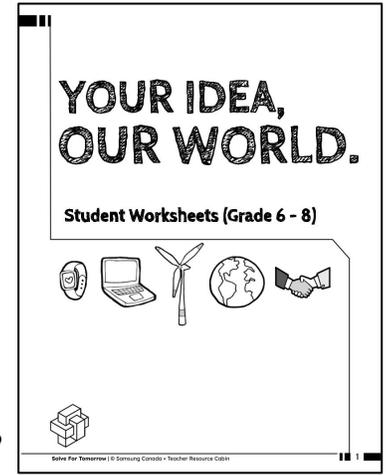
There are 3 resources provided for Grade 6 – 8 teachers to get started with this contest:



Teacher Guide
(This document)



Teaching Slides



Student Workbooks

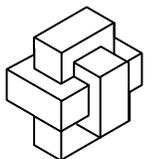
Before you begin, read through this **Teacher Guide** to understand what to do with your students each day to prepare to enter the contest.

Students will work through the student workbooks over five days. This will help students come up with their own unique ideas.

Lesson Plan Overview		
Day 1: Why Your Ideas Matter	Day 2: Problem Identification	Day 3: Proposing Solutions
Day 4: Presentation Planning	Day 5: Presentation and Feedback	Day 6: Contest Entry

Then, as a class, you need to decide which idea to enter. Students can enter as a small team or as a class.

Once an idea is selected, the teacher will write an official **contest entry on the Solve for Tomorrow website** before the contest deadline, December 20, 2024.



Day 1: Why Your Ideas Matter

On Day 1, the focus is ensuring students understand the importance of sustainability, health, and advocating for equity-seeking groups, and how their ideas can create meaningful change in their communities.

Learning Goal: Students will explore innovative technologies and solutions, and understand how their ideas can positively impact the environment, health, equity-seeking groups, and the well-being of society.

Success Criteria:

- Define key terms: sustainability, health, and equity-seeking groups
- List examples of innovative technologies and solutions.

Resources



Teaching Slides:
Slides 1 - 20



Student Workbook:
Pages 3 - 6

- **Slides 1 - 4:** Introduce the Solve for Tomorrow contest to students. Explain the purpose of the contest and the prizes/recognition. The winning school will become The School of Tomorrow for one year.
- **Slides 5 - 8, Workbook Page 3:** Discuss different “What If?” questions to imagine a brighter future.
- **Slides 9 - 15, Workbook Page 4:** Students will complete Page 4 for homework to consider local challenges related to health, sustainability, or equity-seeking groups, in advance of the next day’s lesson.
- **Slides 16 - 20, Workbook Pages 5 - 6:** Explore innovative technology that already exists in the world today. This is important, as students will be showcasing their own STEM-based ideas and inventions.

Day 2: Problem Identification

On Day 2, students will focus on recognizing challenges within a chosen focus area: health, sustainability, or equity-seeking groups. By identifying specific problems, they can lay the groundwork for finding meaningful proposed solutions in future lessons.

Learning Goal: Students will identify three key issues within their chosen focus area and explain how each impacts their community.

Success Criteria:

- Choose a focus area and identify three distinct challenges in their community related to the chosen focus area.
- Clearly explain how each challenge affects the community's well-being or environment.
- Provide a detailed description of one key challenge.

Resources



Teaching Slides:
Slides 21 - 27



Student Workbook:
Pages 7 - 8

- Complete any remaining Slides/Workbook Pages that are outstanding from the previous day. Discuss students' findings from Page 4.
- **Slides 21 - 27:** Go through slides with students to discuss and identify different problems in their community related to health, sustainability, and equity-seeking groups. This will help students determine their proposed solutions tomorrow.
- **Workbook Page 7 - 8:** Have students record their thinking on the problem identification pages. They will identify problems in their community and think about their impact.

Day 3: Proposing Solutions

On Day 3, students will brainstorm and propose solutions to the issues they identified in Day 2 for their chosen focus area. This step is crucial, as the innovative solutions they develop will be submitted to the Solve for Tomorrow contest.

Learning Goal: Students will develop creative solutions to address the three community challenges they identified.

Success Criteria:

- Propose a solution for each of the identified challenges.
- Ensure solutions are practical and address the problem's impact.
- Refine one key solution to be submitted for the Solve for Tomorrow contest.

Resources



Teaching Slides:
Slides 28 - 36



Student Workbook:
Pages 9 - 10

- **Slides 28 - 36:** Review the different problems in the community that students identified. Encourage students to begin to brainstorm solutions to these issues. Students will need to consider cost, ease of implementation, and overall impact.
- **Optional Extension:** Organize small group discussions where each group focuses on one challenge and brainstorms multiple solutions.
- **Workbook Page 9 - 10:** Students will brainstorm and think of solutions to the problems they identify.
- **Optional Extension:** Have students sketch their solution ideas or create a short written proposal to explain how their solution could work.

Day 4: Presentation Planning

On Day 4, students will begin preparing to present their solutions to their classmates. They will develop a formal action plan that outlines their ideas, detailing how their solution addresses the community challenge. This step will help students organize their thoughts and ensure their solution is clear, practical, and impactful.

Learning Goal: Students will plan and structure an effective presentation to communicate their proposed STEM-based solution.

Success Criteria:

- Identify the purpose of the presentation and tailor it to engage classmates.
- Organize the presentation in a logical and coherent manner.
- Use feedback to refine and improve individual presentations.

Resources



Teaching Slides:
Slides 37 - 42



Student Workbook:
Pages 11 - 14

- **Slides 37 - 42:** Present slides to give students tips on creating a detailed slideshow to showcase their proposed solution idea.
- **Workbook Page 11 - 13:** Students will plan their project presentation slides and complete the action plan.
- When students have completed the planning sheets, they can create their slideshows to showcase their ideas to their classmates. Remind students to review the rubric on **Workbook Page 14** to ensure they include all required information.
- If some students are done early, they can present their slideshow to a peer and request feedback to improve their presentation before they present tomorrow.

Day 5: Presentations and Feedback

On Day 5, students will present their ideas to their classmates and receive feedback. You could also invite other classes in the school, principal/vice-principal, or community members (parents/guardians) to listen to presentations, to make it an exciting event.

Learning Goal: Students will present their proposed STEM-based solutions and actively participate in providing constructive feedback to their peers.

Success Criteria:

- Clearly present ideas in a professional, organized presentation.
 - Demonstrate a positive and receptive attitude towards suggestions for improvement.
 - Implement specific improvements based on feedback received.
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- Outline the agenda for the day, emphasizing the importance of collaboration, constructive criticism, and continuous improvement.
 - Each student presents information about the challenge they are targeting and their proposed STEM-based solution.
 - Provide guidelines for constructive feedback, emphasizing the importance of specific, actionable suggestions. Remind students to focus on both strengths and areas for improvement.
 - Example student feedback:
 - “I appreciated the clarity of your presentation.”
 - “Can you explain how your solution addresses the specific aspects of the local challenge?”
 - “I didn’t fully understand the connection between your solution and the identified problem. Could you elaborate?”
 - “What inspired you to choose this particular solution?”

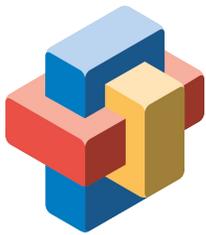
Day 6: Contest Entry

On Day 6 (when all presentations are complete), determine as a class which idea to enter.

Students may enter as a team or as a class. Up to a maximum of 50 students.

The submission must be sponsored and submitted by a teacher at the school. One entry per teacher, but multiple teachers from the same school may enter.

Once an idea is selected, students will work with the teacher to fill out the submission form on the Solve for Tomorrow website before the contest deadline, **December 20, 2024**.



Click the link below to the Samsung website to enter the contest:

www.samsung.com/ca/solve

References

References for definitions and key concepts introduced in teaching slides and student workbook.

Mulder, Karel & Ferrer-Balas, Didac & Van Lente, Harro. (2012). “What is Sustainable Technology? Perceptions, Paradoxes, and Possibilities.” DOI:10.4324/9781351278485

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