YOUR IDEA, OUR WORLD.

Grade 9 - 12

Let's hear your ideas!

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.

Prizes and Recognition

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 Solve for Tomorrow finalist entry, and the most popular finalist will win $5,000 in Samsung Vouchers and/or Samsung products for their school.

Contest Overview and Timeline

Contest Overview and Timeline
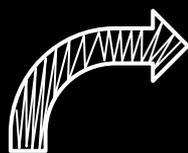
This is the part we will focus on for now!

1 Entry
October 15 > December 20, 2024
Teachers submit applications for their teams.

2 Phase 1 Judging
Phase 1 Judging: January 2-16, 2025
Six judges consider the entries.

3 Regional Finalists
Announced January 20, 2025

4 Video Entry
January 30 > February 28, 2025
Regional finalists each submit a 5-minute video.

5 Phase 2 Judging
March 3-17, 2025
Six judges consider the Regional Finalists' videos.

6 National Finalists
Announced on or about March 21, 2025

7 Final Presentation
On or about April 14, 2025
National Finalists present virtually. Judges interview.

8 Winners
Grand Prize & Runners Up: Announced on or about April 30, 2025

9 Public Voting for Fan Favourite
April 1-16, 2025
Canadians can vote for a Fan Favourite from the final four, online at www.samsung.com/ca/solve

10 Fan Favourite
Announced on or about April 30 2025

Day 1:

WHY YOUR IDEAS MATTER

Why Your Ideas Matter

- Sometimes, all it takes is a fresh perspective to find solutions to challenges in health, sustainability, or supporting equity-seeking groups.
  - You have the **power to create change**!

- In this project, you will:
  - Explore key issues in Canada.
  - Use creativity to design impactful proposed solutions.
  - Come up with ideas to improve lives.

Why Your Ideas Matter

Consider the following:

What if everyone in Canada had access to clean drinking water?

What if cities ran on 100% renewable energy?

What if every Canadian had free access to mental health services?

What if everyone had access to affordable housing?

What if every school in Canada had a community garden?

How would our world be different?

Your Turn

Complete the worksheet to consider some of these "What If?" questions.

(Page 3)

Name: _____ **Date:** _____

▮▐▐ WHY YOUR IDEAS MATTER

Every major issue in health, sustainability, and social equity presents an opportunity for transformation. **Real solutions require innovative thinking** and a willingness to challenge the status quo. In this workbook, you'll explore key issues in Canada and use your creativity to design solutions that could improve lives, protect the environment, or help people in need.

✏ **Instructions:** Select a "What If?" scenario from the list below and envision a more equitable and sustainable Canada.

❑ What if everyone in Canada had access to clean drinking water?
❑ What if cities ran on 100% renewable energy?
❑ What if every Canadian had free access to mental health services?
❑ What if everyone had access to affordable housing?
❑ What if every school in Canada had a community garden?

1. Describe what life in Canada would look like if your "What If" scenario became reality. How would daily life, society, and the environment be impacted?

_____

_____

_____

_____

_____

_____

2. What actions could governments, businesses, or individuals take to bring about these changes?

_____

_____

_____

_____

_____

Think Global, Act Local

- **"Think Global, Act Local"** means:

  - Pay attention to big problems **around the world**, related to health, sustainability, or equity-seeking groups.

  - Do small things in your community to help solve those problems, like recycling or volunteering.

  - **Lots of small actions** can make a big difference globally.

What is HEALTH ?

- Health is the state of your body and mind.
  - Includes **physical fitness** and **mental well-being**.
  - Involves healthy habits and managing stress.

What are some examples of health challenges that people can face?

How can schools or communities promote healthy lifestyles?

What is SUSTAINABILITY?

- Using resources wisely to **protect the environment**.
  - Ensures future generations can meet their needs.
- Focus on reducing waste and conserving energy.

What actions can we take to reduce waste, recycle, or protect natural habitats?

What could your community do to save energy or reduce pollution?

Who are EQUITY-SEEKING GROUPS?

- **Equity-seeking groups** are people who face barriers to opportunities and support.

What challenges do some people face in finding jobs that others might not face?

How can we create more opportunities for everyone to have equal access to education, healthcare, or jobs?

Key Terms

Health	How well your body and mind are working, and it includes everything from physical fitness to mental well-being.
Sustainability	Using resources in a way that protects the environment so future generations can live well, too.
Equity-seeking Groups	Groups of people who don't have the same opportunities or support as others, making it harder for them to succeed.

How would you define a better society, and how do you envision your future career helping you contribute to making it a reality?

Your Turn

Complete the worksheet to further explore the key terms.

(Page 4)

▐▐ KEY TERMS

Instructions: Fill in the chart for each of the key terms below.

Definition: | Characteristics:

Sustainability

Examples: | Non-Examples:

Definition: | Characteristics:

Health

Examples: | Non-Examples:

Definition: | Characteristics:

Equity-seeking Groups

Examples: | Non-Examples:

Day 2:

INNOVATIVE TECHNOLOGY

Innovative Technology

- **Innovative technology** means new or improved inventions and ideas that can solve real-life problems in smart and efficient ways.

- **Related terms:**

    Adaptive   Creative

    Advanced   Smart   Efficient

    Sustainable   Progressive

Innovative Technology

- Examples of innovative technology:

Solar panels

Wind turbines

Vertical gardening in urban areas

Smartwatches for health tracking

Think-Pair-Share:
Can you think of recent innovations that have significantly enhanced societal well-being?

Your Turn

Complete the worksheets to show what you know about innovative technology.

(Pages 5 - 6)

▮▮ INNOVATIVE TECHNOLOGIES

Innovative technology refers to the development of new solutions that improve quality of life, protect the environment, and benefit society. These ideas tackle opportunities for healthier, more s range from improving access to c healthcare outcomes in the future

1. When a new technology is introduced as an inn should be considered to determine if it genuinely

_____

_____

2. How can innovative technology be prioritized a Give an example from each sector that improves sustainability, or supports equity-seeking groups

Commercial	
Transportation	
Residential	
Healthcare	
Industrial	

▮▮ INNOVATIVE TECHNOLOGIES

3. In point form, record what you know about various innovative technologies. Consider its benefits for the environment, health, or equity-seeking groups. If you're unsure, write a question you have about it.

a) Biodegradable Plastics	b) Solar Panels
c) LED Light Bulbs	d) Energy-Efficient Appliances
e) Electric Vehicles (EVs)	f) Smart Thermostats
g) Assistive Devices	h) Vertical Farming
j) Telemedicine Programs	k) Rainwater Harvesting Systems

Course Connections

- Learning across different subjects can address major world problems like environmental sustainability, public health, and helping equity-seeking communities.

  - **Examples:** Chemistry, Biology, Business, Computer Studies, Mathematics, Food and Nutrition, Geography
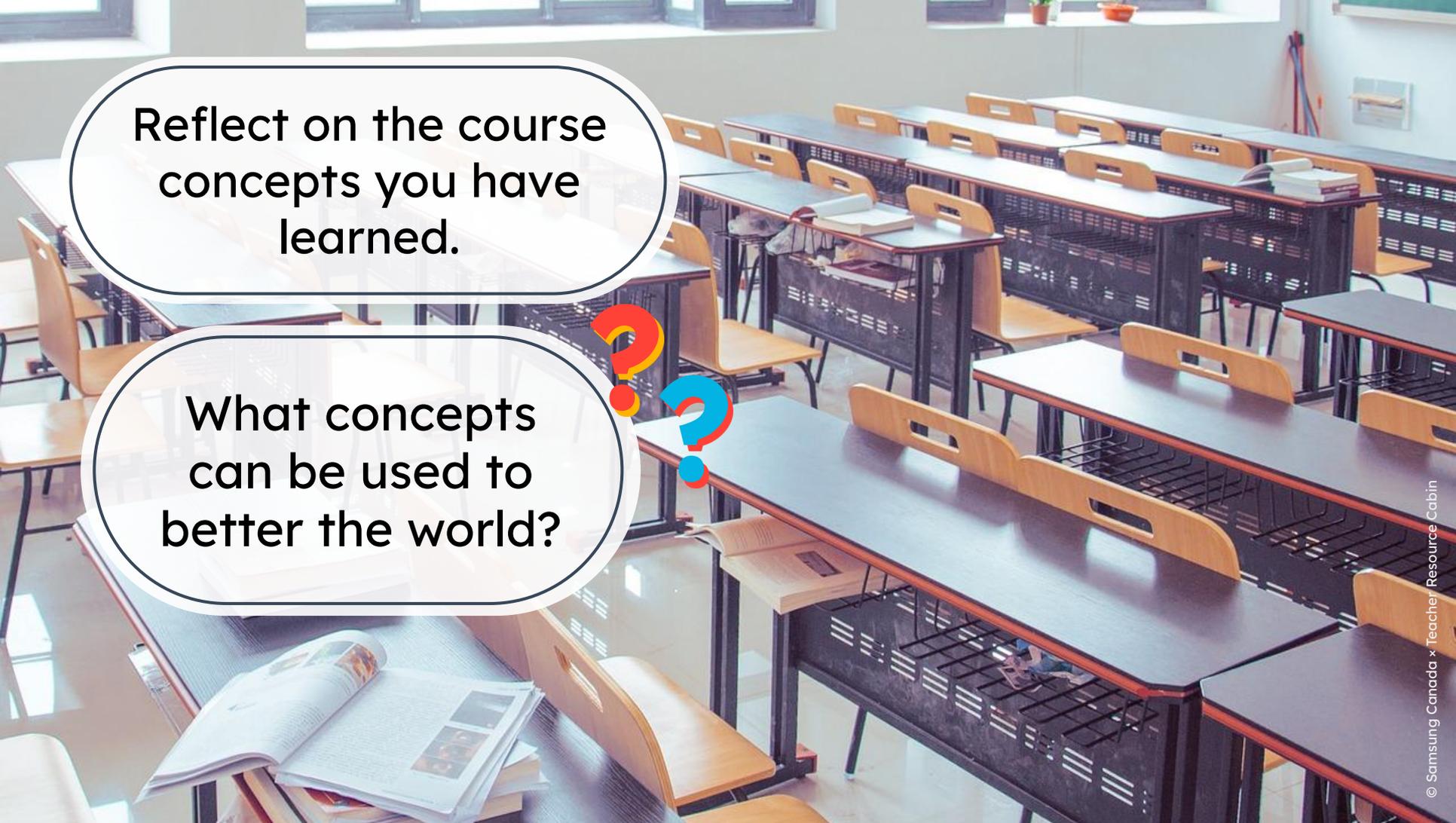
Your Turn

Complete the worksheets to think broadly about course connections to solving real-world problems.

(Page 7 - 8)

COURSE CONNECTIONS

1. Think broadly: How can learning in different high school subjects—such as chemistry, biology, business, computer studies, mathematics, food and nutrition, and geography—be used to address major world problems: sustainability, public health, and assisting equity-s...

Chemistry	Issue:	Harmful contaminant...
	Impact:	Learning about chemical processes... the use of materials like activat...
Biology	Issue:	
	Impact:	
Business	Issue:	
	Impact:	
Computer Studies	Issue:	
	Impact:	
Food & Nutrition	Issue:	
	Impact:	
Geography	Issue:	
	Impact:	

COURSE CONNECTIONS

2. Make connections: For this task, you will analyze innovations that improve quality of life and connect to the subject area that you are studying.

a) Write your course subject area: _____

b) Identify existing innovations: Research and list three historical innovations related to your chosen subject area. Include details such as the innovation's name, creator (if known), time period, and a brief description of its positive impact on society (i.e. related to health, sustainability, or equity-seeking groups).

Innovation 1:

Innovation 2:

Innovation 3:

c) Reflection: Write a paragraph reflecting on the significance of these historical innovations. Are there areas where these innovations could be improved to better support sustainable initiatives, health, or equity-seeking groups?

_____
_____
_____
_____
_____

Day 3:

PROBLEM IDENTIFICATION

Issues and Impact

- Consider the different challenges that impact the environment, society, and our global community.

- **Examples:**
  - Plastic pollution
  - Lack of access to clean water
  - Homelessness
  - Food insecurity
  - Mental health stigma

Some issues go beyond borders. What are examples of global issues?

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Issues and Impact

- To assess community issues, consider both the **issue** and the **impact**. For example:

Issue: Lack of access to clean water.

Impact: The lack of access to clean water leads to health issues, economic challenges, and social inequalities, impacting overall well-being.
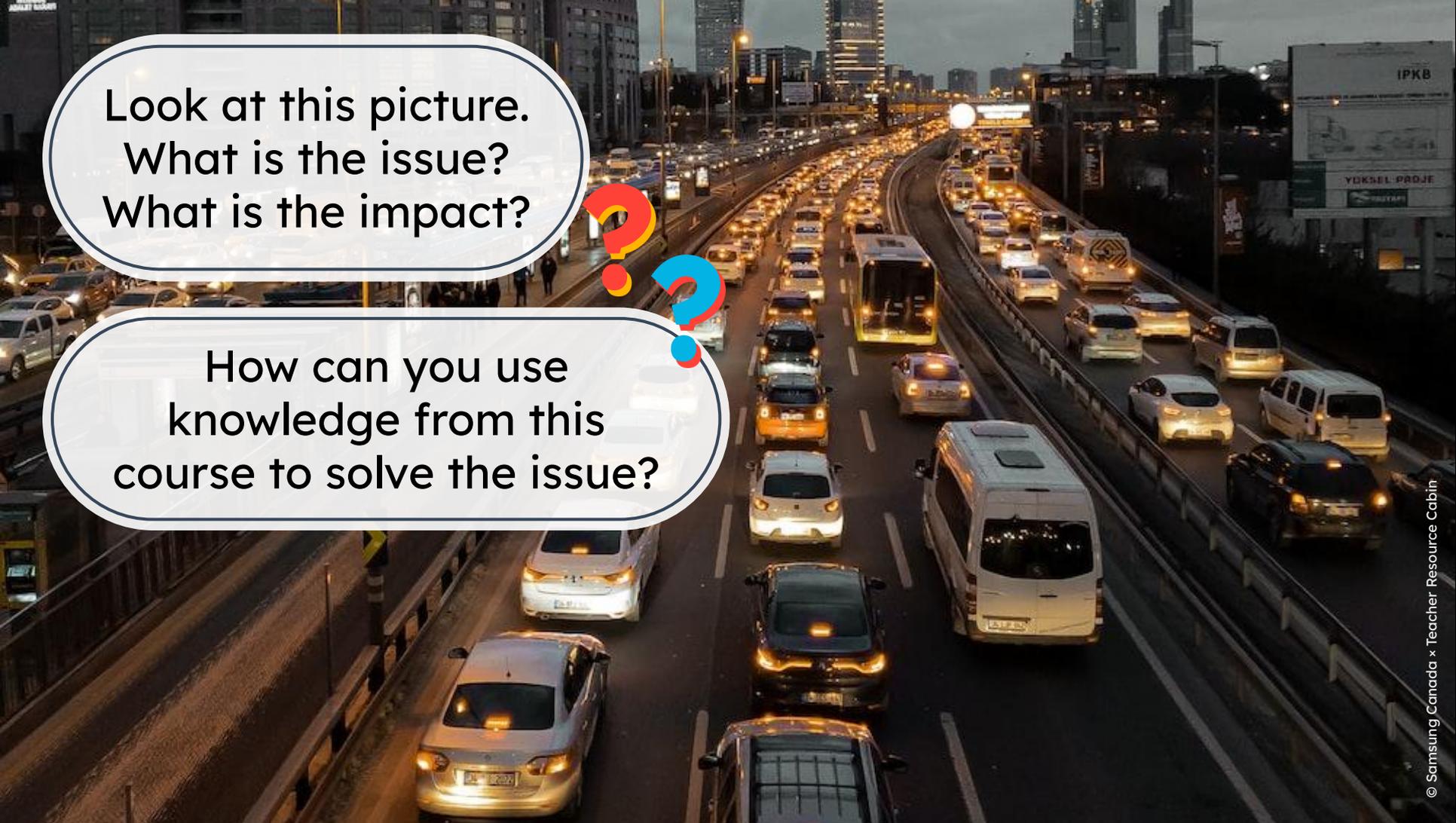
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Your Turn

Identify challenges you have observed in your community.

Connect the challenges to your focus area (i.e. health, sustainability, or equity-seeking groups).

(Page 9)

Name: _____ Date: _____

◼️❚❚ PROBLEM IDENTIFICATION

For the Samsung Solve for Tomorrow contest, you will identify a **problem** related to a specific focus area (i.e. health, sustainability, or equity-seeking groups) and determine a **solution**.

1. Choose a focus area.

My Focus Area: _____

2. In the mind map below, identify challenges you have observed in your community related to your focus area.

Challenges

2. For each challenge identified in the mind map, explain its impact. Connect these challenges to relevant course subject matter.

	Impact	Course Connection
1		
2		
3		
4		

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Barriers to Solutions

- There are many reasons why solutions have not been implemented for issues society is facing today.
    - **Lack of Awareness**
    - **Finances**
    - **Short-term Thinking**
    - **Stakeholder Opposition**
    - **Issue Complexity**

Barriers to Solutions

Lack of Awareness

- People may not understand the severity of problems, leading to inaction.

- Policy-makers might not prioritize solving these issues without public awareness.

Barriers to Solutions

Economic/Financial Constraints

- Innovative technologies or practices often require initial investments that might be higher than conventional options.

- Some communities may lack the resources necessary for sustainable solutions.

Barriers to Solutions

Short-Term Thinking

- Prioritizing short-term gains often leads to decisions that disregard long-term consequences.

- Immediate gratification drives consumer choices:

    - Cheaper/convenient options

    - Overconsumption
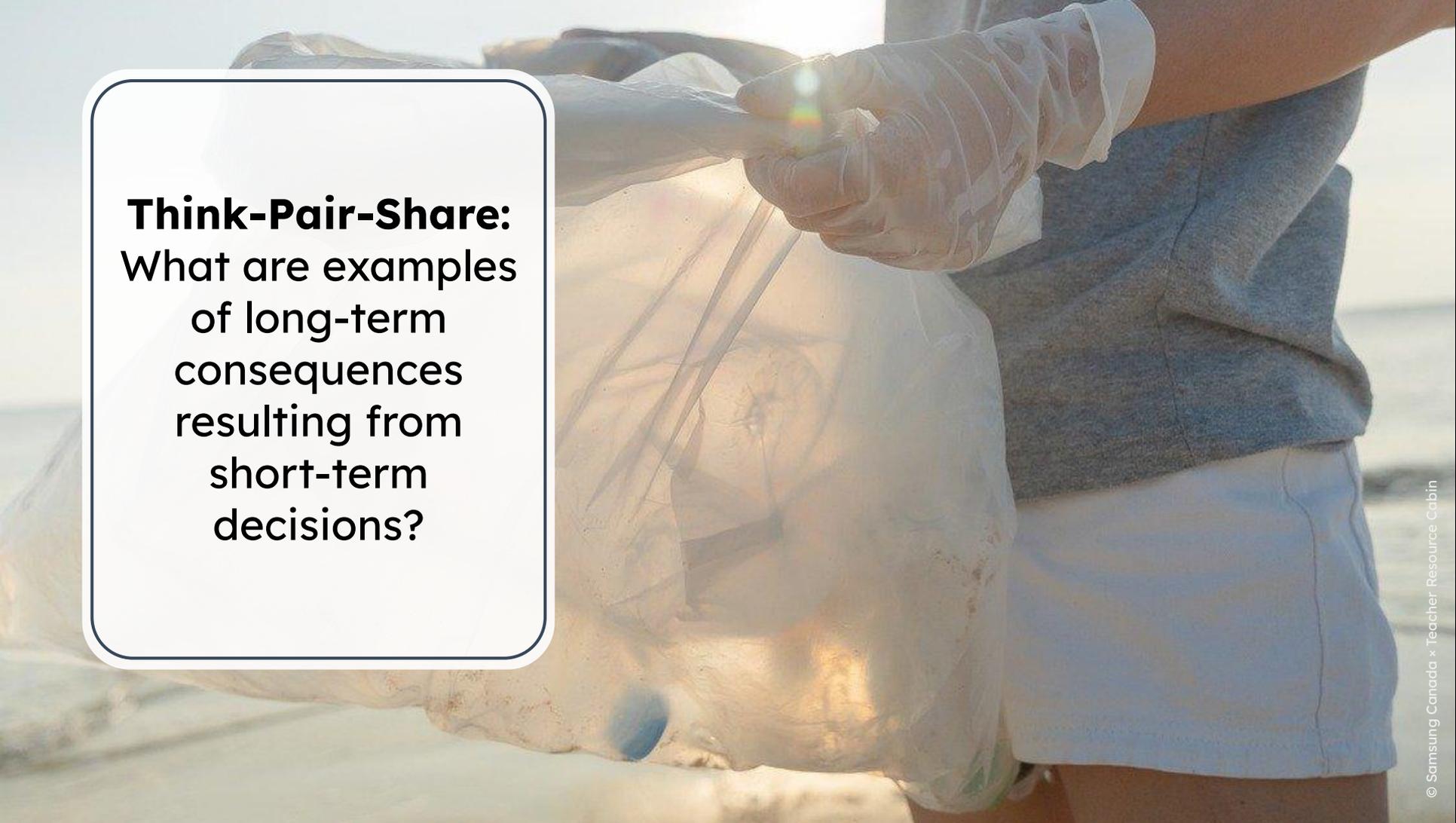
Think-Pair-Share:
What are examples of long-term consequences resulting from short-term decisions?

Barriers to Solutions

Opposition from Stakeholders

- Industries might oppose change due to financial interests.

- Policymakers backed by industries might be resistant to change.

- Opposing stakeholders may spread misinformation or manipulate public perception.

Barriers to Solutions

Issue Complexity

- Some challenges, such as climate change, involve scientific complexities and uncertainties.

- Many issues transcend borders, requiring global cooperation.

- Developing innovative technologies often involves overcoming technical hurdles.

Clearly identify the problem you wish to address.

Use credible sources to gather information related to the problem.

(Page 10 - 11)

Name: _____ Date: _____

▮▮ PROBLEM STATEMENT

3. Explain the impact of solving the identified problem. This could include improved health, social benefits, or environmental sustainability.

_____

_____

_____

...s to solving the problem. Why has this problem not
...Explain if any of the barriers below apply to this problem.

Name: _____ Date: _____

▮▮ PROBLEM STATEMENT

1. Choose one challenge and write a problem statement. Which issue in your community do you want to address?

Problem Statement:

_____

_____

_____

2. Write a list (annotated bibliography) of reputable online sources you can consult to learn more about this challenge.

Digital Sources:

1. URL: _____
   Description: _____
   _____

2. URL: _____
   Description: _____
   _____

3. URL: _____
   Description: _____
   _____

4. URL: _____
   Description: _____
   _____

Day 4:

PROPOSING SOLUTIONS

Proposing Solutions

- How can the principles of STEM help us propose possible innovative solutions to local challenges?

  - Consider how science, technology, engineering, art, or math can be applied.

Think-Pair-Share:
Consider the issue of wheelchair accessibility in your community. What are three STEM-based ideas you could invent to address the issue?

Example: Create an app that maps wheelchair-accessible routes.

Finding Solutions

- When inventing, assess how each proposed solution could **positively impact** the community.

- Think about environmental, social, and economic factors.

- Weigh the potential positive outcomes. How will each proposed solution contribute to a sustainable and resilient community?

Finding Solutions

- Evaluate the **financial requirements** for implementing each solution.

- There are both short-term and long-term costs.

  - What equipment is needed?

  - Inventing technology?

  - How are people trained?

  - Regular maintenance?

Finding Solutions

- Assess how easy or difficult it is to put each solution into action.

- Consider available resources, **technology**, and community support.

- Think practically.

Why is it important to consider cost and available technology when coming up with a new idea?

Finding Solutions

- Reflect on the impact, cost, and ease of implementation for each solution.

- Choose the proposed solution you are most excited about and believe will make a positive impact in your community.
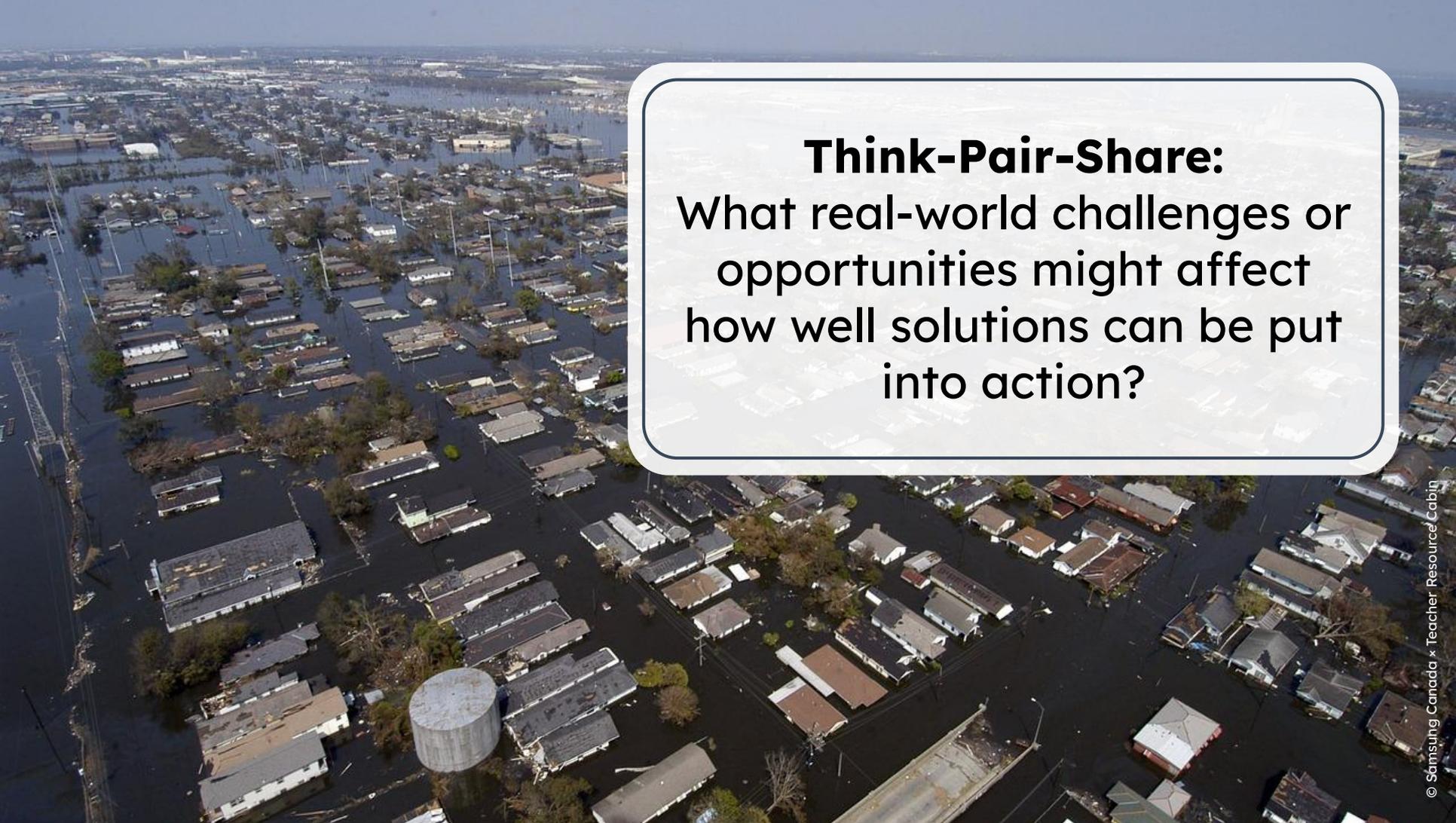
Think-Pair-Share:
What real-world challenges or opportunities might affect how well solutions can be put into action?

Your Turn

Invent and evaluate proposed solutions to challenges in your community.

(Pages 12 - 13)

Name: _____ Date: _____

▌▐▎ FINDING SOLUTIONS

For the Samsung Solve for Tomorrow contest, once you have identified a **problem**, you will use your knowledge from your high school course to determine a STEM-based (science, technology, engineer

1. Think of three possible STEM-based solutions t challenge you identified.

1 STEM-Based Solution 1: _____
Brief description:

Materials or technology required:

2 STEM-Based Solution 2: _____
Brief description:

Materials or technology required:

3 STEM-Based Solution 3: _____
Brief description:

Materials or technology required:

Name: _____ Date: _____

▌▐▎ FINDING SOLUTIONS

2. Using point form notes, evaluate the impact (how it will help), cost, and ease of implementation (easy or difficult to accomplish) for each solution from the previous page.

	Impact	Cost	Ease of Implementation
Solution **1**			
Solution **2**			
Solution **3**			

Your Turn

Choose your best idea and formulate it into a solution statement.

You will pursue this idea for your final project.

(Pages 14 - 15)

Name: _____ Date: _____

SOLUTION STATEMENT

For your entry to the Samsung Solve for Tomorrow contest, choose the one solution you are most excited about and believe will have a **positive impact** in your community.

1. How will you address an issue in your community?

Solution Statement:
_____
_____
_____
_____

2. Why did you select this solution over the others? Consider impact, cost, and ease of implementation.
_____
_____
_____
_____

3. How does your solution integrate concepts or ideas from your course subject?
_____
_____
_____
_____

Name: _____ Date: _____

SOLUTION STATEMENT

4. How will your solution address the barriers identified on your "Problem Statement" pages?

_____

...potential solutions with a peer or another team. ...back and consider different perspectives before ...record their feedback here.

Day 5:

PRESENTATION PLANNING

Project Planning

- Clearly define the purpose of your presentation - to **showcase your proposed STEM-based solution** for a local challenge.

- Identify the key messages you want your classmates to take away from your presentation.

Project Planning

- Capture attention with a compelling introduction.

- Clearly state the problem and your proposed solution.

- **Incorporate visuals**, prototype drawings, or examples to enhance understanding.
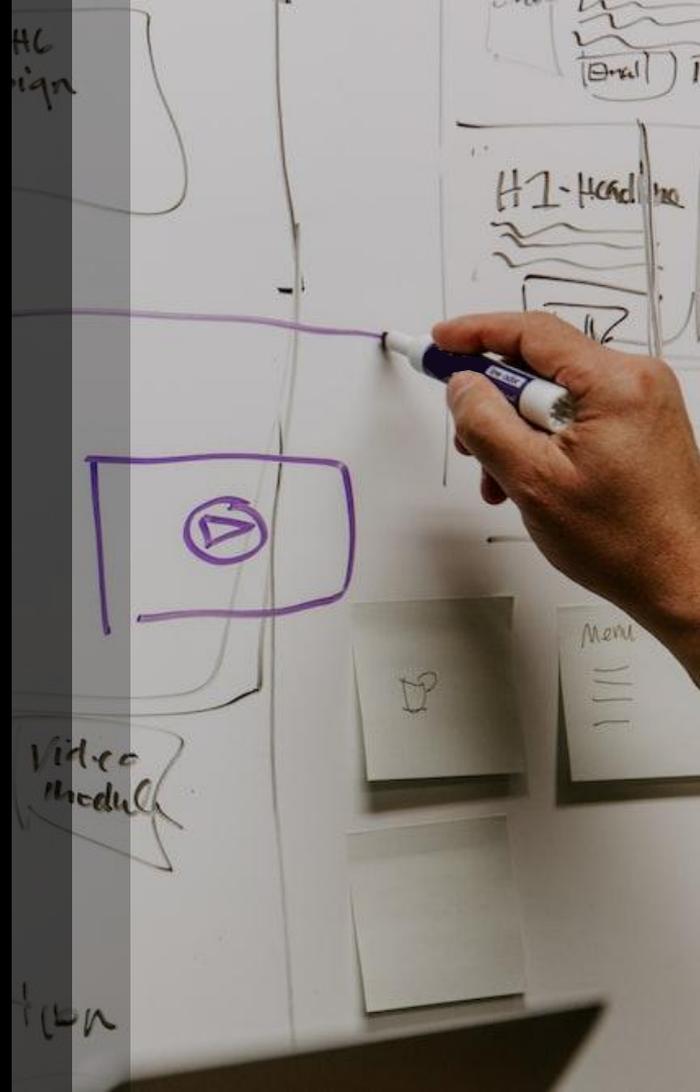
Project Planning

- Prepare for questions your classmates might have about your issue and proposed solution.

- Identify common questions related to your proposed solution and its implementation.

Make sure you review this rubric when you are making your presentation.

Note: Only your teacher will use and see this rubric, not the contest judges.

You can revise your idea using your teacher's feedback.

Name: _____ Date: _____

▮▮❚ RUBRIC (General)

Total: ___/80 = ___ %

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge	Fails to identify or support a challenge.	Identifies with limited depth.	Identifies with adequate research.	Clearly identifies with thorough research.	$\overline{20}$
STEM-Based Solution	Proposes an unclear solution with little understanding.	Proposes a basic solution with limited understanding.	Proposes a viable solution with good understanding.	Proposes an innovative solution with clear understanding.	$\overline{20}$
Design Process	Demonstrates a lack of understanding or application.	Applies with basic planning.	Applies with clear planning.	Applies with systematic planning.	$\overline{20}$
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	$\overline{20}$

Comments:

_____
_____
_____
_____
_____

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Make sure you review this rubric when you are making your presentation.

Note: Only your teacher will use and see this rubric, not the contest judges.

You can revise your idea using your teacher's feedback.

Name: _____   Date: _____

▮ ▮▮ **RUBRIC** (Science)   Total: /80 =   %

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge and Solution	Fails to identify or support a challenge and offer a solution.	Identifies with limited depth. Solution needs further depth.	Identifies with adequate research. Solution is viable.	Clearly identifies with thorough research. Solution is exceptional.	/20
Application of Science Course Concepts	Limited application of physics, chemistry, or biology concepts.	Satisfactory application of physics, chemistry, or biology concepts.	Good application of physics, chemistry, or biology concepts.	Excellent application of physics, chemistry, or biology concepts.	/20
Engineering Design Process	Student does not apply the engineering design process during their design.	Student is still developing engineering design process knowledge and skills.	The engineering design process is effectively utilized in the design process.	The engineering design process is utilized with precision and effectiveness.	/20
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	/20

Comments:

_____
_____
_____
_____

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You can revise your idea using your teacher's feedback.

Make sure you review this rubric when you are making your presentation.

Note: Only your teacher will use and see this rubric, not the contest judges.

You can revise your idea using your teacher's feedback.

Name: _____   Date: _____

▮▮ RUBRIC (Business)

Total: ___/80 = ___%

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge and Solution	Fails to identify or support a challenge and offer a solution.	Identifies with limited depth. Solution needs further depth.	Identifies with adequate research. Solution is viable.	Clearly identifies with thorough research. Solution is exceptional.	/20
Application of Business Course Concepts	Limited application of business course concepts.	Satisfactory application of business course concepts.	Good application of business course concepts.	Excellent application of business course concepts.	/20
Understanding of business dynamics and barriers involved	Limited understanding of business dynamics and barriers involved in the problem.	Satisfactory understanding of business dynamics and barriers involved in the problem.	Good understanding of business dynamics and barriers involved in the problem.	Complete understanding of business dynamics and barriers involved in the problem.	/20
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	/20

Comments:

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You can revise your idea using your teacher's feedback.

Name: _____   Date: _____

▮▮ RUBRIC (Computer Science)   Total: ___/80 = ___%

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge and Solution	Fails to identify or support a challenge and offer a solution.	Identifies with limited depth. Solution needs further depth.	Identifies with adequate research. Solution is viable.	Clearly identifies with thorough research. Solution is exceptional.	/20
Application of Computer Science Course Concepts	Limited application of computer science course concepts.	Satisfactory application of computer science course concepts.	Good application of computer science course concepts.	Excellent application of computer science course concepts.	/20
Understanding of the Relationship Between Computers, Coding, and Innovative Solutions	Minimal awareness of how technology can benefit society and the environment.	Some understanding of how technology can address societal and environmental challenges.	Good grasp of how technology can be used to create solutions for society and the environment.	Strong ability to propose or assess tech solutions that benefit society and the environment.	/20
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	/20

Comments:

_____
_____
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Make sure you review this rubric when you are making your presentation.

Note: Only your teacher will use and see this rubric, not the contest judges.

You can revise your idea using your teacher's feedback.

Name: _____ Date: _____

■❚❚ **RUBRIC** (Food and Nutrition)   **Total:** ___/80 = ___ %

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge and Solution	Fails to identify or support a challenge and offer a solution.	Identifies with limited depth. Solution needs further depth.	Identifies with adequate research. Solution is viable.	Clearly identifies with thorough research. Solution is exceptional.	___/20
Application of Food and Nutrition Course Concepts	Limited application of food and nutrition course concepts.	Satisfactory application of food and nutrition course concepts.	Good application of food and nutrition course concepts.	Excellent application of food and nutrition course concepts.	___/20
Understanding of Sustainable Practices Related to Food and Nutrition	Limited understanding of sustainable practices and how human health is affected by nutrition.	Basic understanding of sustainable practices and how nutrition impacts human health and society.	Solid understanding of sustainable practices and how nutrition affects human health and societal well-being.	Comprehensive understanding of sustainable practices and how nutrition affects human health and societal well-being.	___/20
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	___/20

Comments:

_____
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_____

Make sure you review this rubric when you are making your presentation.

Note: Only your teacher will use and see this rubric, not the contest judges.

You can revise your idea using your teacher's feedback.

Name: _____   Date: _____

▮▮▯ RUBRIC (Geography)   Total: /80 =   %

Project Title: _____

Criteria	Level 1	Level 2	Level 3	Level 4	
Identification of Challenge and Solution	Fails to identify or support a challenge and offer a solution.	Identifies with limited depth. Solution needs further depth.	Identifies with adequate research. Solution is viable.	Clearly identifies with thorough research. Solution is exceptional.	/20
Application of Geography Course Concepts	Limited application of geography course concepts.	Satisfactory application of geography course concepts.	Good application of geography course concepts.	Excellent application of geography course concepts.	/20
Understanding Geography's Impact on Sustainability and Societal Well-Being	Poor understanding of how geography relates to sustainability and societal well-being.	Satisfactory understanding of how geography relates to sustainability and societal well-being.	Good understanding of how geography relates to sustainability and societal well-being.	Displays a complete and nuanced understanding of how geography impacts sustainability and societal well-being.	/20
Presentation Skills	Presents disorganized content with limited visuals.	Delivers a somewhat organized presentation with basic visuals.	Delivers a clear and organized presentation with visuals.	Delivers a well-organized and engaging presentation.	/20

Comments:

_____
_____
_____
_____