



IGNITE MY FUTURE

LESSON TITLE

Smile Starter

Guiding Question: What Does Happiness Mean?

SUBJECTS

Science
Health
Social Studies

COMPUTATIONAL THINKING PRACTICES

Collecting Data
Finding Patterns

COMPUTATIONAL THINKING STRATEGIES

Creating Computational
Artifacts

MATERIALS

[Measure My Emotions](#)
Student Capture Sheet

Magic markers or stickers

[Smile Starter Planning Worksheet](#)

Computers with access
to the internet

Copies of articles to be used in
class (URL included)

Ignite Curiosity

- Is smiling contagious?
- Can smiling when you're unhappy make you feel happier?
- Why is the Mona Lisa so famous?
- How could smiling be connected to your health?

In this lesson, students use the computational thinking strategies of collecting data and finding patterns to explore the link between facial expressions and the biological processes that create emotions. In **THINK**, students identify their baseline emotional state to serve as a control for an experiment researching the link between body language and emotions. They will then participate in a variety of different postures (smiling, frowning, and so on) and record on a sliding scale how the posture has changed their emotions. In **SOLVE**, students use the quantitative data they gathered to find patterns in how their physical movements affected their emotions. They work in groups to develop a physical routine of postures and body movements that an individual can do to create a more happy and confident mindset. They then compare this data with data collected on the link between body posture and endorphins. In **CREATE** students plan and distribute a "Smile Starter" multimedia campaign that is based on the data they collected. In **CONNECT**, students discuss how the link between physical movements and emotional health empowers all of us to positively impact our emotional state whenever we would like, leading to discussions of careers like psychology, medical research, and computer science.

Students will be able to:

- **Apply** computational thinking to discovering patterns in data,
- Gather and **analyze** relevant information about a topic, and
- **Create** a multimedia campaign that is based on scientific data and mobilizes others.



Students explore the link between physical movement and emotions.

- 1 Ask** students if they've ever heard the expression, "Laughter is the best medicine." Then, point out that while watching a comedy isn't a substitute for visiting a doctor, there are proven health benefits to smiling. Ask students what emotion they're feeling right now. Then, ask them to think about the expression on their face. Tell them to think about something happy or funny, and see how that changes their mood. After that, tell them to smile without thinking about anything. Do they feel the same as when they were recalling a happy memory?
- 2 Have students watch** the first 3 minutes of an excerpt from the [Morning Show Canada Instagram Channel](#). Then, explain that they will be exploring the link between body movements and emotions and using the data they collect to develop a "happiness workout" and a Smile Campaign to distribute it.
- 3 Ask** students if they agree with the information presented in the Morning Show clip. Then, explain that a scientific exploration never relies on only one source. Have students read the following sources:
["Power Posing is back: Amy Cuddy successfully refutes criticism"](#) (Opinion)
["There's Magic In Your Smile."](#) (Article)
["The Potlatch and the Smile."](#) (Fiction)
- 4 Distribute** the [Measure My Emotions](#) student capture sheet and magic markers or stickers. Inform students that they will begin by establishing a baseline mood, then measure how that baseline changes when they change their postures and facial expressions.
- 5 Lead** students to consider the importance of the scientific method when gathering data by asking the following guiding questions:
 - Why is it important to establish a baseline? (It gives you a solid point to which you can compare the rest of your data.)
 - Can you be objective about data related to emotions? Why or why not? (Yes—emotions can be measured in terms of endorphins released, as well as by comparing them to other emotional states.)
 - What should you do if the data you collect contradicts your hypothesis/expectations? (Change your expectations to fit the data, not the other way around.)

Then, have them fill out the worksheet. Explain that students will begin by establishing a baseline on a sliding scale, and noting their emotional state based on a neutral expression. They will mark their baseline with a marker or a sticker. Then, they will record the changes to their emotional states using the same sliding scale when they change their postures by smiling, frowning, and making other movements and facial expressions.

- 6 Challenge** students to identify and summarize the problem that needs to be solved. Remind them that they are looking for connections between the physical movements of facial expressions and the emotions connected to those facial expressions.



Students use the quantitative data they gathered to find patterns in how their physical movements affected their emotions.

Once students have created their baseline and then performed experiments and gathered data about their emotional response to different facial expressions and postures, inform them that they will be looking for patterns in their data and using these patterns to create a happiness campaign that spreads smiles.

- 1 Have students gather** into small groups and review their data, then compare their group's data with that of other groups. Encourage students to use the worksheet to note comparisons between their own data and that of other groups and to develop a method of scientifically capturing these comparisons. (For example, students can take an average of how many numbers to the left or right students' happiness ratings moved after performing each action.) Then, students will brainstorm 5 ways they can start a chain reaction of smiles.
- 2 Once students have collected** a number of ideas, have each group write up an outline for its Smile Starter campaign. Remind them that they should look at a variety of physical and emotional touchpoints in order to spread happiness.
- 3 Once students have written the outline for their campaigns,** have them design another baseline indicator that can serve as a control and will help students identify whether or not their Smile Starter is successful.



Students plan and distribute a Smile Starter campaign using a multimedia format that is based on the data they collected and the conclusions they drew from it.

- 1 Instruct** students to turn their outlines into a campaign. They can do this in a variety of ways:
 - Creating a bitmoji
 - Recording a podcast
 - Developing a presentation
 - Filming a video
 - Drawing an ad
 - Building a meme
- 2 Distribute** the [Smile Starter Planning Worksheet](#). Ask students to consider the following when creating their campaign:
 - What is the most important piece of data from your findings?
 - What do you see as the greatest benefit of the Smile Starter Campaign?
 - How can you use this data to convince your audience of the campaign's benefits?
- 3 Ask** students how they would spread their campaign. What methods of communication would they use (Word of mouth? Email? Twitter?)? Who would they begin by contacting? How much time would they devote to the campaign? Have students write a description of their campaign on the [Smile Starter Planning Worksheet](#). Tim Horton's has been very successful using this idea with their Smile Cookie Campaign to raise Fund for local charities. Learn more about their #smilecookie! Campaign.



Select one of the strategies listed below to help students answer these questions:

- How do this problem and solution connect to me?
- How do this problem and solution connect to real-world careers?
- How do this problem and solution connect to our world?

- 1 Write** the three questions on PPT or flip chart slides and invite students to share out responses. Display chart paper around the room, each with one question written on it. Ask students to write down their ideas on each sheet.
- 2 Assign** one of the questions to three different student groups to brainstorm or research, and then share out responses.
- 3 Direct** students to write down responses to each question on a sticky note, and collect them to create an affinity diagram of ideas.

How does this connect to students?

Most students have experienced strong emotions, and they may have noticed a connection between what they were feeling and the way they were behaving—for example, standing up straighter when they are proud, or smiling so hard their face hurt.

Some students may also have experienced the connection between actions and emotions while performing in plays (acting like they feel an emotion can lead to actually feeling the emotion), or experiencing a rush of endorphins while playing sports (such as the “runner’s high”).

How does this connect to careers?

Mental Health Professionals (counselors, therapists, psychologists, and psychiatrists), especially those specializing in Cognitive Behavioral Therapy, use the connection between the body and the mind/emotions to help people live happier and more fulfilling lives.

Anthropologists and Sociologists use the insights gained from the connection between behavior and emotions to understand the cultures they are studying.

Actors can use the ability to control their emotions through physical actions to give more authentic performances.

How does this connect to our world?

Understanding the connection between our behaviors and actions and our emotional state empowers us to take control of our emotions. This can help us maintain a more positive outlook on life and overcome obstacles more easily.

Understanding this link can also demystify emotions and emotional responses. If emotions can be approached and examined scientifically, they become less frightening, and people are more likely to have a logical response to a situation than an emotional response.

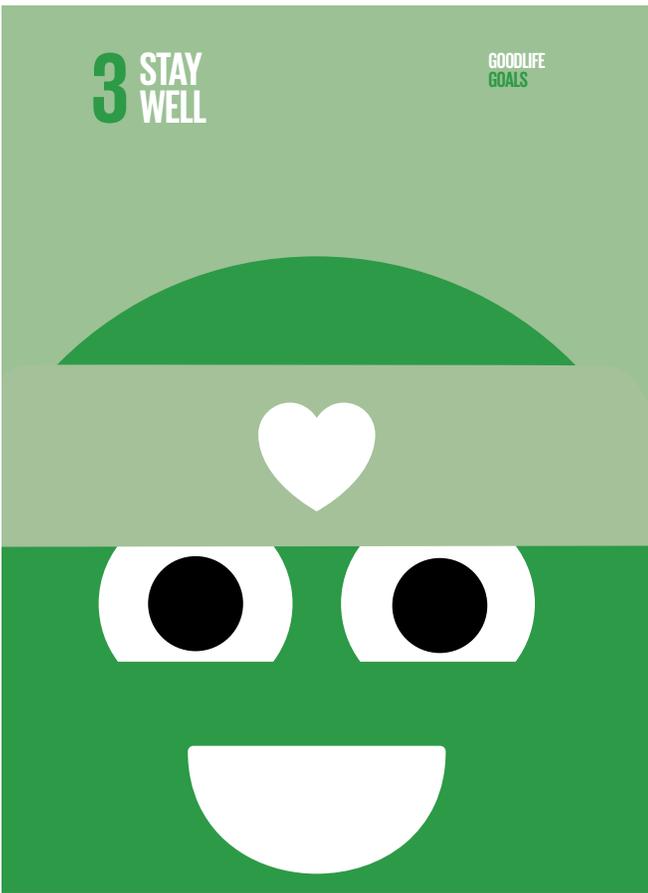
Curriculum Connections

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



“For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and **people like you.**”
-The United Nations

“The Sustainable Development Goals are the blueprint for a better future. And together we can reach them. By following the Good Life Goals, we can all help make tomorrow better than today. Let’s do this! #GoodLifeGoals”



STAY WELL
Actions

3

- | | |
|--|--|
| 1
Learn about, and share, ways to stay healthy | 4
Value mental health and well-being |
| 2
Wash your hands and exercise regularly | 5
Demand medical care and vaccinations for all |
| 3
Stay safe on or near roads | |
- 3 GOOD HEALTH AND WELL-BEING** Ensure healthy lives and promote well-being for all at all ages.
- SUSTAINABLE DEVELOPMENT GOALS**

Source:

[The Good Life Goals by Futerra Sustainability Communications Ltd and 10-Year Framework of Programmes on Sustainable Lifestyles and Education Programme](#) is licenced under CC BY-ND 4.0.

Global Competencies

CMEC (Council of Ministers of Education, Canada) Pan-Canadian Global Competencies Descriptions

Highlighted sections apply to this lesson

Global Competency	Definition	Student Descriptors
Collaboration	Collaboration involves the interplay of the cognitive (including thinking and reasoning), interpersonal, and intrapersonal competencies necessary to participate effectively and ethically in teams. Ever-increasing versatility and depth of skill are applied across diverse situations, roles, groups, and perspectives in order to co-construct knowledge, meaning, and content, and learn from, and with, others in physical and virtual environments.	<p>Students participate in teams by establishing positive and respectful relationships, developing trust and acting co-operatively and with integrity.</p> <p>Students learn from and contribute to the learning of others by co-constructing knowledge, meaning, and content.</p> <p>Students assume various roles on the team, respect a diversity of perspectives, and address disagreements and manage conflict in a sensitive and constructive manner.</p> <p>Students network with a variety of communities/groups and use an array of technology appropriately to work with others.</p>
Communication	Communication involves receiving and expressing meaning (e.g., reading and writing, viewing and creating, listening and speaking) in different contexts and with different audiences and purposes. Effective communication increasingly involves understanding both local and global perspectives, societal and cultural contexts, and adapting and changing using a variety of media appropriately, responsibly, safely, and with regard to one's digital footprint.	<p>Students communicate effectively in different contexts in oral and written form in French and/or English through a variety of media.</p> <p>Students communicate using the appropriate digital tools and create a positive digital footprint.</p> <p>Students ask effective questions to acquire knowledge, listen to understand all points of view, voice their own opinions, and advocate for ideas.</p> <p>Students gain knowledge about a variety of languages and understand the cultural importance of language.</p>

Global Competencies cont.

Highlighted sections apply to this lesson

Global Competency	Definition	Student Descriptors
<p>Global Citizenship and Sustainability</p>	<p>Global citizenship and sustainability involves reflecting on diverse worldviews and perspectives and understanding and addressing ecological, social, and economic issues that are crucial to living in a contemporary, connected, interdependent, and sustainable world. It also includes the acquisition of knowledge, motivation, dispositions, and skills required for an ethos of engaged citizenship, with an appreciation for the diversity of people, perspectives, and the ability to envision and work toward a better and more sustainable future for all.</p>	<p>Students understand the ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies, and countries.</p> <p>Students take actions and responsible decisions that support quality of life for all, now and in the future.</p> <p>Students recognize discrimination and promote principles of equity, human rights, and democratic participation.</p> <p>Students understand Indigenous traditions and knowledge and its place in Canada, learn from and with diverse people, develop cross-cultural understanding, and understand the forces that affect individuals, societies, and nations.</p> <p>Students engage in local, national, and global initiatives to make a positive difference.</p> <p>Students contribute to society and to the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable, and ethical manner.</p> <p>Students as citizens participate in networks in a safe and socially responsible manner.</p>

Global Competencies cont.

Highlighted sections apply to this lesson

Global Competency	Definition	Student Descriptors
<p>Critical Thinking and Problem Solving</p>	<p>Critical thinking and problem solving involve addressing complex issues and problems by acquiring, processing, analysing, and interpreting information to make informed judgments and decisions. The capacity to engage in cognitive processes to understand and resolve problems includes the willingness to achieve one’s potential as a constructive and reflective citizen. Learning is deepened when situated in meaningful, real-world, authentic experiences.</p>	<p>Students will solve meaningful, real-life, complex problems by taking concrete steps to address issues and design and manage projects.</p> <p>Students will engage in an inquiry process to solve problems as well as acquire, process, interpret, synthesize, and critically analyse information to make informed decisions (i.e., critical and digital literacy).</p> <p>Students will see patterns, make connections, and transfer what they have learned from one situation to another, including in real world applications.</p> <p>Students will construct, relate, and apply knowledge to all domains of life such as school, home, work, friends, and community.</p> <p>Students will analyze the functions and interconnections of social, economic, and ecological systems.</p>
<p>Innovation, Creativity and Entrepreneurship</p>	<p>Innovation, creativity, and entrepreneurship involve the ability to turn ideas into action to meet the needs of a community. The capacity to enhance concepts, ideas, or products to contribute new-to-the-world solutions to complex economic, social, and environmental problems involves leadership, taking risks, independent/unconventional thinking and experimenting with new strategies, techniques, or perspectives, through inquiry research. Entrepreneurial mindsets and skills involve a focus on building and scaling an idea sustainably.</p>	<p>Students formulate and express insightful questions and opinions to generate novel ideas.</p> <p>Students contribute solutions to complex economic, social, and environmental problems or to meet a need in a community in a number of ways including; enhancing concepts, ideas, or products through a creative process, taking risks in their thinking and creating, making discoveries through inquiry research, and by hypothesizing and experimenting with new strategies or techniques.</p> <p>Students demonstrate leadership, initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes and motivate others with an ethical entrepreneurial spirit.</p>

Global Competencies cont.

Highlighted sections apply to this lesson

Global Competency	Definition	Student Descriptors
<p>Learning to learn and to be self-directed and self-aware</p>	<p>Learning to learn and to be self-directed and self-aware, means: becoming aware and demonstrating agency in one's process of learning, including the development of dispositions that support motivation, perseverance, resilience, and self-regulation. Belief in one's ability to learn (growth mindset), combined with strategies for planning, monitoring and reflecting on one's past, present, and future goals, potential actions and strategies, and results. Self-reflection and thinking about thinking (metacognition) promote lifelong learning, adaptive capacity, well-being, and transfer of learning in an ever-changing world.</p>	<p>Students learn the process of learning (metacognition) (e.g., independence, goal-setting, motivation) and believe in their ability to learn and grow (growth mindset).</p> <p>Students self-regulate in order to become lifelong learners and reflect on their thinking, experience, values, and critical feedback to enhance their learning. They also monitor the progress of their own learning.</p> <p>Students develop their identity in the Canadian context (e.g., origin and diversity) and consider their connection to the environment. They cultivate emotional intelligence to understand themselves and others. They take the past into account to understand the present and approach the future.</p> <p>Students develop personal, educational, and career goals and persevere to overcome challenges to reach these goals. They adapt to change and show resilience to adversity.</p> <p>Students manage various aspects of their lives: physical, emotional (relationships, self-awareness), spiritual, and mental well-being.</p>

Measure My Emotions

Baseline:

How do you feel right now? Mark your baseline emotional state on the scale below, with **1 being saddest and 10 being happiest**.

1 2 3 4 5 6 7 8 9 10

Then, mark how your feelings change compared to this baseline for each of the following:

1 Smiling

1 2 3 4 5 6 7 8 9 10

2 Frowning

1 2 3 4 5 6 7 8 9 10

3 Making a puzzled expression

1 2 3 4 5 6 7 8 9 10

4 Smiling and standing up straight

1 2 3 4 5 6 7 8 9 10

5 Frowning and slouching

1 2 3 4 5 6 7 8 9 10

6 Laughing and putting hands on hips

1 2 3 4 5 6 7 8 9 10

The Smile Starter Planning Worksheet

Use this worksheet to brainstorm ideas for your Smile Starter campaign and your multimedia kickoff piece.