

Learning for a Sustainable Future's

Thinking Forward

*Back to School Toolkits for Building
Classroom Communities in a Pandemic World*



Grades 2-5

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Learning for a
Sustainable Future

LSF

Thinking Forward Toolkit

Rationale

Teachers will be greeting new groups of students this year after many unique and challenging months of schooling. They will be eager to begin learning together again and to build the skills, knowledge and understanding so beneficial to all students. But there are many important lessons from the past months that we don't want to miss or forget. In spite of severe restrictions, uncertainty and physical and mental challenges, there have been countless examples of adaptability, creativity and transformational actions.

Purpose and Focus of the Toolkits

These toolkits will provide educators with sessions for reflection and thinking about the Pandemic experience in a thoughtful, proactive and engaging way. They are designed for primary, junior, middle school and high school levels. The material and activities are age appropriate, applicable to diverse learners and can connect to any subject discipline or curriculum.

The focus is on key concepts which will help students to move forward with new awareness, resilience and optimism for the future. While each session connects to students' experiences, the concepts investigated are also linked to the UN Sustainable Development Goals, allowing students to see how their learning is useful and to act on it.



Overview

What is in the toolkit?

There are 4 sessions containing outlines, activities, and resources to explore concepts. Each lesson is designed to be 45 minutes to 1 hour in length:

Session One: The introduction to the Thinking Forward process includes creating a safe space and essential agreements for listening and responding with respect and the power of diverse perspectives. Teachers will already be working on core social skills for creating a positive learning culture, so this lesson will be useful beyond the Thinking Forward lessons.

Session Two: The session explores the concepts of Adaptability and Creativity. These qualities were critically important skills and so often exhibited throughout the year. Students will be encouraged to reflect on the many ways things changed rapidly in their world to keep them safe and to continue learning, working and staying connected. The role of technology, the importance of nature and green spaces, the adaptations made in business, health and government practices could all be included.

Session Three: This session explores the concept of trust in the Scientific Method for Evidence-Based Decisions and Actions. Many have described the last year as living through the "world's largest science experiment". What have we learned about seeking trusted sources and having to wait for validated results of tests and data before acting? How can we use this understanding going forward in evaluating information, seeking validated facts, managing our emotions throughout the process and taking responsible action?

Session Four: This session explores the concepts of Interconnection, interdependence and citizenship. It looks at the importance of our human connections, our societal systems and our interconnected natural world. How did we try to maintain our connections in the last year? What worked for us? What is our responsibility in helping keep ourselves safe and to help others keep safe. "What do we want to maintain and improve in our systems going forward?"

"The trees act not as individuals, but somehow as a collective. Exactly how they do this, we don't yet know. But what we see is the power of unity. What happens to one happens to us all. We can starve together or feast together."

- Robin Wall Kimmerer, Braiding Sweetgrass

- The sessions can take place in any learning space, including in class, online, or outside in nearby nature.
- Several strategies are taken from LSF's climate change education resource, [Empowering Learners in a Warming World](#) which includes [42 active learning strategies](#).
- In addition, many resources included can be accessed on LSF's [Resources for Rethinking database](#)
- Also check out this [Emotional Resilience Toolkit for Climate Work](#) and this article, [SDGs- Why it Matters](#)

Important Note: *Getting to know students at the beginning of the year is a common school practice. For many reasons, it will be important for teachers to have any information that might make this year more challenging or make reflection on the past year especially difficult for an individual student.*

Learning for a Sustainable Future (LSF) is a Canadian charity founded in 1991 to promote, through education, the knowledge, skills, values, perspectives, and practices essential to a sustainable future.

Session 1 - Key Concepts: Uniqueness and Diversity

Background Information

The introduction to the Thinking Forward process includes creating a safe space and essential agreements for listening and responding with **respect and the power of diverse perspectives**. Teachers will already be working on core social skills for creating a positive learning culture, so this lesson will be useful beyond the Thinking Forward lessons.

Sustainable Goals



Good Health and Well-being: Why it matters



Reduced Inequalities: Why it matters

Provocation (concepts acquisition)

Introducing the concepts of **RESPECT, RELATIONSHIPS, DIVERSITY** - *provocations are included in activities below*

Instead of asking questions to merely memorize the definitions of concepts, use strategies to allow students to make meaning of the concepts.

Circle Discussion (concepts acquisition)

Activity 1. DIVERSITY (the hunt could be done outdoors)

Instructions: Introduce and read the book [Whoever You Are by Mem Fox](#)

Human Scavenger Hunt: Using the attached hunt (or create your own).

1. Show the [scavenger hunt](#) and model how to play. Co-construct success criteria with students: "To have a successful hunt we need to..."
2. Distribute the worksheet to students and invite them to hunt for names.
3. Reassemble and discuss together their findings.
4. Throughout the exchange, you want to pull out that we are all different.

Activity 2. RESPECT (this could be done outdoors using pavement and chalk)

1. Use the strategy [Concept Mapping](#)
2. Divide the class in 4 groups. Hand out chart paper for each group. Group 1 brainstorms what it means to be respectful to ourselves. Group 2 brainstorms what it means to be respectful to others. Group 3 brainstorms what it means to be respectful for the class environment. Group 4 brainstorms what it means to be respectful of the school environment. After 5 minutes of brainstorming, rotate groups to the other concept maps and each group can add to the previous group's thinking.
3. Come up with a statement that defines the concept of respect.
4. Include this statement as a community essential agreement.

Activity 3. RELATIONSHIPS (This could be done outside, by using natural objects-twigs, grass, stones, earth, sand)

1. In pairs, students give out the sheet of [shapes](#). Students are to create a picture by cutting and gluing BUT they cannot speak to each other. Time limit is also given.
2. Once completed, tape pictures around the room and do a [gallery walk](#) to admire others' projects.
3. As a class brainstorm a definition of the word RELATIONSHIP. Use the strategy of what it looks like, sounds like and feel like. (Gibbs J, Reaching All by Creating Tribes Learning Communities,[2014])
4. Reassemble and have students determine and distinguish the key characteristics of the concept. Come up with a statement that define the concept of relationships.
5. Include this statement as a community essential agreement.

Taking Action: Allowing time for students to take action is an essential part of the learning process

Once the students have a clear understanding of the concepts. Post the [Umbrella question](#): How does **diversity**, **respect** and **relationship** impact a **community**?

In their intellectual journal, have students write their thoughts (this can be done by writing or drawing or concept mapping).

Knowledge Building Circle

All ideas are improvable! Together we can build new knowledge and understanding.

This activity requires all members to sit in a circle. The method will need a few minutes to explain how a [Knowledge Building Circle \(KBC\)](#) works. The teacher is a member of the group and may take notes but is not directing the flow of discussion.

Introduce the 17 SDGs and focus on SDG 3 and 10. Address the challenges that the world faces. The umbrella question can also be simplified to start up the conversation. Examples of questions could be: *What could we do to make people feel welcome when they come to our school? What could we do to be leaders in the school? What could we do in our class to learn more about each other?*

After the KBC, have students return to their journals and add to/elaborate on their thinking.

Session 2 - Key Concepts: Adaptability, Creativity, Resilience

Background Information

The session explores the concepts of **Resilience, Adaptability and Creativity**. These qualities were critically important skills and so often exhibited throughout the year. Students will be encouraged to reflect on the many ways things changed rapidly in their world to keep them safe and to continue learning, working and staying connected. The role of technology, the importance of nature and green spaces, the adaptations made in business, health and government practices could all be included.

Sustainable Goals



[Industry, Innovation, and Infrastructure: Why it matters](#)

Provocation (concepts acquisition)

Introducing the concepts of **RESILIENCE, ADAPTABILITY, CREATIVITY** - (provocations are included in activities below)

Instead of asking questions to merely memorize the definitions of concepts, use strategies (see below) to allow students to make meaning of the concepts.

Circle Discussion

Activity 1. RESILIENCE

Provocation:

1. Show the video [Young boy tries to jump on box](#)
2. Ask the students to watch carefully and ask what concepts (or ideas) do they notice?
3. Watch again but this time ask the question: How are setbacks, resilience and success connected? Use the strategy [One Minute Paper](#) to note down their understanding of the concept. This can also be done with the teacher writing on chart paper to note down all the students' thinking.
4. Reassemble and come up with attributes for the concept of resilience by showing students a picture of a baby trying to walk, Terry Fox, and Moana. Ask: What do these 3 characters have in common? (i.e. experiencing a setback or difficulty, trying again, no give up)

Activity 2. ADAPTABILITY (this can be done outdoors-using chalk on pavement)

Provocation:

1. Using the strategy [Affinity Mapping](#) give out to students several sticky notes. Ask them to either write or draw things that they noticed during last year's pandemic and how they and their family have adapted to stay safe. Ask them to write or draw one idea on one sticky note.
2. Invite one student to begin by reading their issue aloud and then sticking it anywhere up on the wall. Ask students who think that their issue is similar to cluster their sticky notes around the original. Continue this process one issue at a time until everyone has found a spot on the wall. This will create a visual cluster analysis or a schema of their thinking. Students are free to move theirs at any point throughout this process if they hear another one that fits with theirs better. After all sticky notes are placed on the wall, ask students if they can come up with a good title to summarize their wall.
3. Introduce the concept ADAPTABILITY. Explain that all that they have noted down is called adapting to new situations. Optional: Give each student a lump of plasticine and ask them to illustrate or shape the plasticine of what adaptability could look like. If outdoors, use natural objects (rocks, twigs, earth) to illustrate adaptability.
4. Show the movie [ADAPTABILITY](#) and discuss as a class the concept adaptation they noticed in the movie.

Activity 3. CREATIVITY (this can be done outdoors)

Provocation:

1. Read the book [What do you do with an idea?](#) By Kobi Yamada
2. Put students in groups of 4. Ask them to explain to each other: if they had an idea what would it be?
3. Introduce the artist [Marilyn](#) and show her creative innovation during the pandemic.
4. Introduce the concept of CREATIVITY and how the pandemic enables many people to have the time to become creative, to pass the time, or to adapt their ways.

Taking Action: *Allowing time for students to take action is an essential part of the learning process*

Once the students have a clear understanding of the concepts. Post the [Umbrella question](#): What is the relationship between resilience, adaptability and creativity during the COVID-19 pandemic?

In their intellectual journal, have students write their thoughts (this can be done by writing or drawing or concept mapping).

Use the KBC strategy [Knowledge Building Circle \(KBC\)](#) to initiate discussion. Address SDG 9 and the challenge the world faces. The umbrella question can also be simplified to initiate knowledge. Examples of questions could be: *If we were to design a survival kit for the pandemic, what should we include in the kit?*

Knowing that the outdoors is a safer place for humans, what innovations could we come up with to invite people to use the outdoors more?

After the KBC, have students return to their journals and add to/elaborate on their thinking.



Session 3 - Key Concepts: Trust and Feelings

Background Information

This session explores the concept of trust in the Scientific Method for **Evidence-Based Decisions and Actions**. Many have described the last year as living through the "world's largest science experiment". What have we learned about seeking trusted sources and having to wait for validated results of tests and data before acting?

How can we use this understanding going forward in evaluating information, seeking validated facts, managing our emotions throughout the process and taking responsible action?

Sustainable Goals



[Quality Education: Why it matters](#)



[Responsible Consumption & Production: Why it matters](#)

Provocation (concepts acquisition)

Introducing the concepts of **Trust and Feelings**. *Instead of asking questions to merely memorize the definitions of concepts, use strategies (see below) to allow students to make meaning of the concepts. If we merely tell students what concepts are. We prevent them of talking ownership of their learning.*

Circle Discussion

Activity 1. TRUST

Read the book: [11 Experiments that Failed](#)

- What do scientists require when creating an experiment?
- What is a hypothesis?
- Can you think of any experiments in the Science world that were successful?
- Watch the video: [What is Science](#). The video (Generation Genius) focuses on 4 important aspects of what is Science:
 - Science is the process of learning about the natural world through observation and experimentation.
 - The more evidence we have about a theory the more confident we are about it. For older students have a discussion of identifying bias.
 - You must be willing to to learn, unlearn and relearn key ideas to change your mind based on new evidence.
 - Many things around us appear to be science but are not.

Activity 2. TRUST or FEELINGS (This activity can be done in the outdoors)

Use the strategy: [Four Corners](#)

Put yes, no, maybe, and I don't know signs up in the four corners of the classroom.

Make statements about the coronavirus from this [Trust and Feelings - coronavirus](#) sheet and get the students to move to the corner that they think is correct. Ask them to discuss, in their chosen corners, why they made that choice. After 2 minutes, give students the opportunity to switch corners if the discussion has changed their mind.

Have a discussion with the class on how they felt when going through this exercise (e.g. uninformed, scared, felt like a follower, challenged, angry, confused—use an emotion chart if needed)

[This link](#) answers (with evidence) some of the questions around COVID-19 and highlights the importance of scientific evidence and knowledge.

Taking Action: Allowing time for students to take action is an essential part of the learning process

Once the students have a clear understanding of the concepts. Post the [Umbrella question](#): What is the role of **trust** and **evidence** in Science during the COVID-10 pandemic?

In their intellectual journal, have students write their thoughts (this can be done by writing or drawing or concept mapping).

Use the KBC strategy [Knowledge Building Circle \(KBC\)](#) to initiate discussion. Address SDG 4 and 12 and the challenge the world faces.

The umbrella question can also be simplified to initiate knowledge. Examples of questions could be: *How important is education for all in gaining knowledge?*

As a class, could we come up with a task or use of a product that is sustainable and reusable to help the environment? (e.g. litterless lunches, less plastic, compost bins, etc). What would be an efficient way to show and advertise our thinking?



Session 4- Key Concepts: Interconnectedness

Background Information

This session explores the concepts of **Interconnection, interdependence and citizenship**. It looks at the importance of our human connections, our societal systems and our interconnected natural world. How did we try to maintain our connections in the last year? What worked for us? What is our responsibility in helping keep ourselves safe and to help others keep safe. What do we want to maintain and improve in our systems going forward?

Sustainable Goals



[Peace, Justice, and Strong Institutions: Why They Matter](#)

Provocation

Introducing the concepts of **Interconnectedness**.

Instead of asking questions to merely memorize the definitions of concepts, use strategies (see below) to allow students to make meaning of the concepts. If we merely tell students what concepts are. We prevent them from taking ownership of their learning.

Circle Discussion

Activity 1. Interconnectedness

Play the energizer activity (below) with the class - People Machine (source:Gibbs J, Reaching All by Creating Tribes Learning Communities,(2014) Pg 388). This can be played outdoors.

“One person begins the activity by assuming a strange position and making a repetitive movement with a repetitive sound. The next person connects physically in whatever creative way he or she chooses, making a different movement and sound. People keep adding themselves to the machine. The result is a huge people machine making a lot of noise.”

After the game, introduce the concept INTERCONNECTEDNESS.

Question: How did this energiser demonstrate the concept of interconnectedness?

Can one person alone bring change? Or do you need a group to create a huge movement for change?

Activity 2

Introduce [Margreet de Heer- The planet and the 17 Goals](#)

Invite the students to explore her cartoons. We are all INTERCONNECTED, what can we do as a class to initiate awareness and changes to promote the 17 SDGs?

Taking Action: *Allowing time for students to take action is an essential part of the learning process*

Provocation: Watch [What is sustainable development?](#) Follow up with a Circle Discussion.

Post the [Umbrella question:](#) How has our community/country demonstrated interconnectedness during the pandemic?

Use Margreet de Heer's cartoon and focus student's attention on page 19 and 20 of the PDF presentation.

Students are invited to create a graffiti wall or an art piece of their choice (poster, clay structure, painting) to bring awareness of the 17 Sustainable Development Goals and suggest ideas on how the school can implement change.

Suggestion: Invite students to present their masterpiece to the school and parental community.