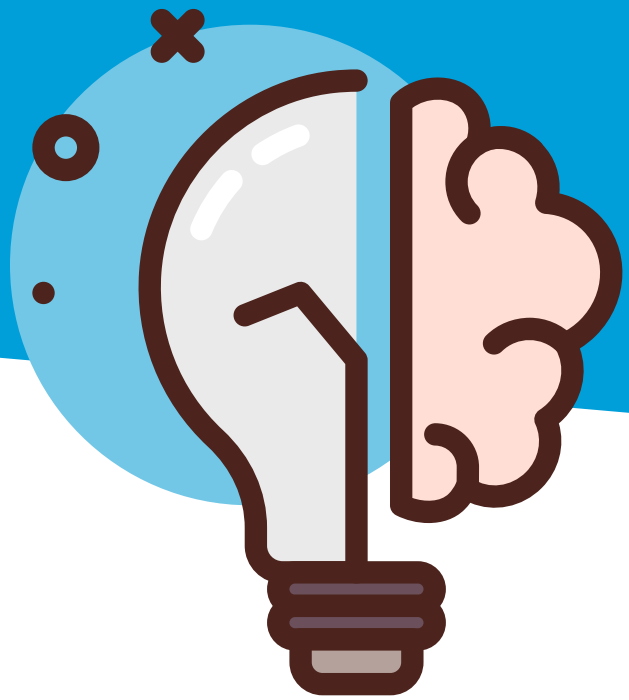


# Supporting the Creative and Critical Thinking Skills of Youth

A guide for integrating creative  
and critical thinking skills into  
club programming



CANADA

# Introduction

The COVID-19 pandemic has had a tremendous impact across all economic and career sectors. In 2020, the World Economic Forum predicted that by 2022, at least 54% of all employees will need reskilling and upskilling to respond to changing work requirements<sup>1</sup>. With all this change, how can we support youth in preparing for their future careers? The key is supporting the development of their transferable skills.

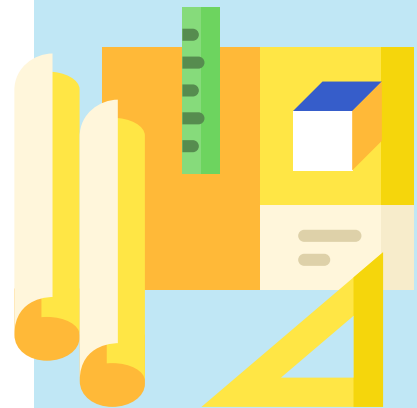
**Transferable skills** are abilities and qualities that can be applied and used in multiple environments, such as work, volunteerism, and leisure activities. They're skills you can use regardless of the specific job or context. Transferable skills are often referred to as "soft skills".

This resource focuses specifically on two transferable skills from the World Economic Forum's Top Soft Skills in 2020 list<sup>2</sup>; **creative thinking** and **critical thinking**. Based on feedback received in the 2021 Careers on the Grow survey, 4-H members in Canada indicated that they could benefit from additional opportunities for skill-building in these areas in order to feel career-ready.

Integrating creative and critical thinking skills into regular club programming is easy to do, and a natural way to support skill development. Creative and critical thinking are integrated into all areas of our life, and can be part of every 4-H project in some way. If we meet youth where they are, not where we think they should be, we can start with what they know and build from there.

## Using this Resource

In this resource, you'll find ideas for talking about creative and critical thinking, and tips to integrate these skills into routine club projects. This resource provides the basics, so don't stop here! Look for other available resources to keep building knowledge and competencies in these important skill areas.



This resource is made possible thanks to the support of:



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Funded by the  
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of Canada

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# How the Positive Youth Development formula supports future careers of members

At 4-H everything we do centres around ensuring youth are strengthening and developing skills and abilities through the Positive Youth Development (PYD) approach. This globally recognized and research-based approach considers youth an asset and partner in the community. This general approach and philosophy is incorporated into all our programming, including career development. The 4-H PYD formula, or “honeycomb”, supports youth in becoming responsible, caring, and contributing individuals empowered to be successful!

The 4-H honeycomb identifies key assets that youth build through 4-H programming. In career development, assets are often referred to as transferable skills. Transferable skills support success in all areas of life, including work, volunteerism, and even leisure activities such as creative and critical thinking. Including career preparedness in regular club activities ensures youth have the opportunity to improve skill mastery in transferable skills, and are supported in planning and preparing for their future, enhancing their sense of purpose. The connection between PYD and future career success is one that shouldn't be overlooked.



# What is Creative and Critical Thinking?

**Creative thinking** is a thought process that is new and innovative in the way that thoughts are generated. Creative thinking involves the ability to consider things in new ways and think outside and beyond traditional ways and approaches. This thought process generates ideas that are completely new, appealing, and useful.

**Critical thinking** is a way of approaching subjects, content, or problems that improves the quality of thinking by using skills in analysis, assessment, and reconstruction. Critical thinking is completely self-directed, and requires good communication and problem-solving skills, as well as the ability to consider biases and assumptions.<sup>3</sup>



# Creative Thinking

## Things to talk about

Ask members what they think creative thinking is, what it involves, and why it's important in all careers.

People who think creatively are curious and open-minded, and have a sense of wonder and joy in learning. They demonstrate a willingness to think in free-flowing, non-linear ways and are comfortable with complexity. Creative thinkers reflect on ideas and concepts, and use imagination, inventiveness, resourcefulness, and flexibility. They're willing to take risks and go beyond existing knowledge.

**There are different types of creative thinking, including:**

- **Analysis** – examining things to know what they mean before thinking creatively about them.
- **Open-mindedness** – setting aside assumptions and biases to look at things in a new way.
- **Problem-solving** – looking for new and creative solutions before asking for help.
- **Organization** – organizing ideas so others can understand them.
- **Communication** – conveying ideas well verbally and in writing, and being a good listener.

Creative thinking isn't limited to those who are artistic. It's a skill anyone can nurture and develop. It's used in all careers and across career sectors, for example:

- **Artistic creativity** – used in arranging retail displays, designing logos, creating marketing and advertising strategies, and drafting scripts.
- **Creative problem solving** – used in all areas of innovation, such as brainstorming new ways to reduce energy use, minimize food waste, or cut costs.
- **Creativity in STEM** – used in designing for efficiency, writing innovative computer programming, and testing a hypothesis.

Employers consider creative thinking an essential skill because it:

- Adds value to your own life and the lives of others.
- Helps individuals become self-reliant and more confident.
- Supports independent thinking.
- Supports the exploration of new ideas and thoughts.
- Helps individuals master difficult situations.



## Tips for Enhancing Creative Thinking

- ✓ Say yes to new member experiences.
- ✓ Allow members to take risks.
- ✓ Encourage members to understand that problems can have many solutions, and explore all possibilities.
- ✓ Support members in trying things on their own. Debrief the different ways members completed the task.
- ✓ Encourage curiosity and inquisitiveness.
- ✓ Avoid negative attitudes.
- ✓ Support members in moving away from patterns and habits and avoiding stereotypes.
- ✓ Encourage members to try things they've never done before.
- ✓ Allow members to lead. Provide support and guidance when needed.

## Incorporating Creative Thinking in Club Projects

A good place to start incorporating creative thinking is to include conversations and real-world examples that are natural, meaningful, and apply to the youth in your club. When youth see and understand how creative thinking works, they're more likely to naturally integrate it into their thinking processes.

**Here are just a few ideas on how to incorporate creative thinking in club projects.**

### Community Engagement & Communications



Research "makers" from different industries.

Brainstorm solutions to community challenges like homelessness or community engagement.

### Science & Technology



Use reflective journaling to record thoughts, ideas, and observations throughout the scientific process.

"Tinker" with various materials to better understand how things work and could work more efficiently.

### Environment & Healthy Living



Explore nature and its interconnectedness as a source of creative inspiration.

Integrate mindfulness into regular routines.

### Sustainable Agriculture & Food Security



Keep a notebook to record ideas and thoughts when in the field or working with animals.

Invent a recipe that helps minimize food waste by using what's on hand.

# Critical Thinking

## Things to talk about

Ask members what they think critical thinking is, what it involves, and why it's important in all careers.

Critical thinking is a logical, sequential, and disciplined process of rationalizing, analyzing, evaluating, and interpreting information to make judgements and/or decisions.

The World Economic Forum found that complex problem solving and critical thinking are important workplace skills for many reasons; leading to innovation and problem solving, helping identify possible solutions that aren't obvious, and helping solve conflicts by considering multiple approaches and avoiding bias or snap judgements.<sup>4</sup>

### Critical thinking...

- Enhances language and presentation skills.
- Is crucial for self-reflection.
- Builds independence.
- Supports positive collaboration and teamwork.
- Promotes creativity.
- Is a key element in a liberal democratic society.
- Promotes self-awareness to help separate rational thought from emotional reactions.
- Requires good communication, problem-solving, and a commitment to consider biases and assumptions.



To solve problems, individuals need to be able to deal with change quickly and effectively, use flexible intellectual skills, and analyze information and diverse sources. Critical thinking supports this, as well as personal learning and empathy for others and their point of view.

Critical thinking teaches many other skills used in various situations in life for reflection, analysis, and planning, including:

- Reasoning
- Evaluating
- Problem-solving
- Decision making
- Analysis



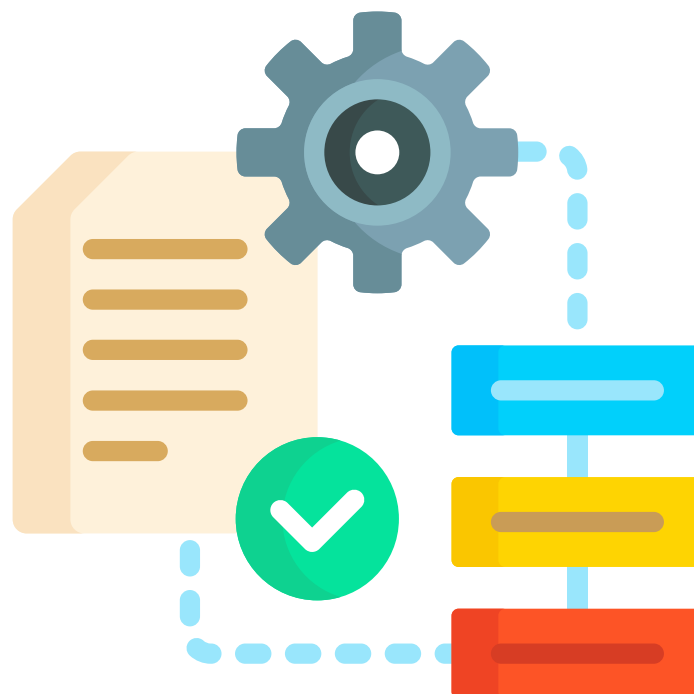
Each of these are applicable across all career fields and sectors.

Critical thinking requires a focus on the process of thinking through five steps.

1. **Identify the real problem** - clarify the problem and find the root cause.
2. **Think creatively** - put judgment aside to generate multiple ideas and solutions to the root cause.
3. **Analyze the logic** - test key assumptions and keep biases in check. Avoid making conclusions based on mistaken beliefs and observations.
4. **Make the decision** - decide on a method/criterion for choosing the best path forward using consensus and collective knowledge when a group is involved.
5. **Coordinate and implement** - set timelines and clarify roles to put the solutions into action.<sup>5</sup>

## Tips for Enhancing Critical Thinking

- ✓ Learn through trial and error.
- ✓ Encourage members to take on small challenges each day.
- ✓ Encourage members to be able to justify their decisions.
- ✓ Foster curiosity.
- ✓ Support members to consider alternative explanations and solutions.
- ✓ Stimulate curiosity and thinking.
- ✓ Avoid telling members to do things in certain ways.
- ✓ Nurture comfort in asking questions.
- ✓ Talk about biases.
- ✓ Avoid limiting critical thinking to factual and/or academic subjects.

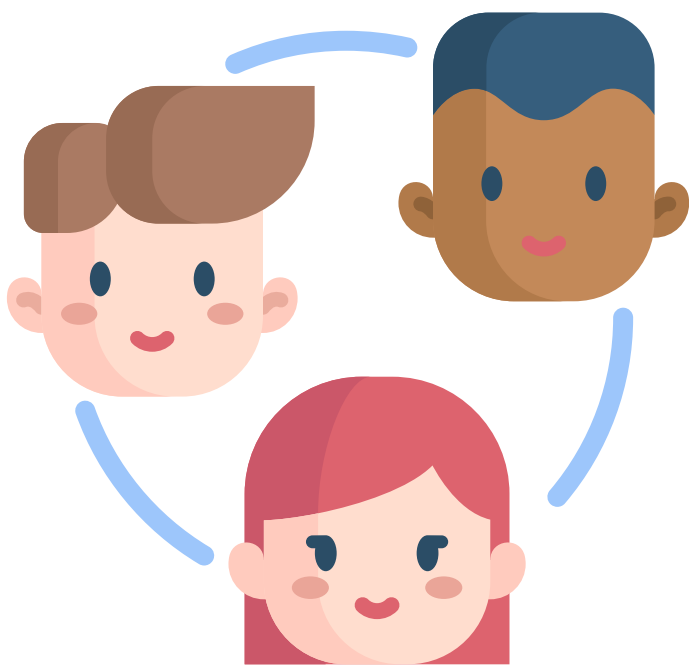




## Incorporating Critical Thinking in Club Projects

A good place to start incorporating critical thinking is to include conversations and real-world examples that are natural, meaningful, and apply to the youth in your club. When youth see and understand how critical thinking works, they're more likely to naturally integrate it into their thinking processes.

**Here are just a few ideas you can use to integrate critical thinking in club projects.**



### Community Engagement & Communications



Participate in a community debate or hold a club debate on a topic that is important to your community.

Work backward to reconstruct the thinking behind decisions that impacted your community.

### Science & Technology



Evaluate the efficiency of new farm technology.

Conduct a science experiment to explore the impact on plant growth by altering elements such as water, light, soil quality, or nutrients.

### Environment & Healthy Living



Try out a new form of physical activity and evaluate its effectiveness on your personal wellbeing.

Critically assess different perspectives and information related to climate change.

### Sustainable Agriculture & Food Security



Discuss a sustainable agriculture process with someone using it, including its efficiency, and consider how it could be improved.

Talk about biases that impact progress toward global food security.

## Endnotes

- 1 Belachew, Tsega & Rachel Surkin. (2020) "This is the New Skills Gap for Young People In The Age of COVID-19". World Economic Forum. <https://www.weforum.org/agenda/2020/10/youth-employment-skills-gap-covid-19/>
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*Published February 2022*

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