Agenda

- **What is Creativity & Innovation?**
- **Why is this Skill Important?**
- **Video**
- **Discussion**
- **Design Project**

What is Creativity & Innovation?

- Your ability to imagine, develop, express, encourage, and apply ideas in ways that are novel, unexpected, or challenge existing methods and norms.
- For example, we use this skill to discover better ways of doing things, develop new products, and deliver services in a new way.

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Why is this Skill Important?

- **Creativity and innovation skills help you come up with new, unique, or "outside the box" ideas or to approach something differently than in the past, both at work and outside work.**
- **A curious mindset that finds inspiration from a broad range of experiences and perspectives helps develop creativity and innovation skills.**

Why is this Skill Important?

- **Employers are increasingly seeking people who can apply creativity and innovation skills to their work in our increasingly diverse settings, and to come up with new solutions or approaches to tackling challenges.**

- **With strong creativity and innovation skills, you can also support and inspire others to develop their own creativity and innovation.**

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Video

- **https://www.youtube.com/watch?v=MQluystHU9c**
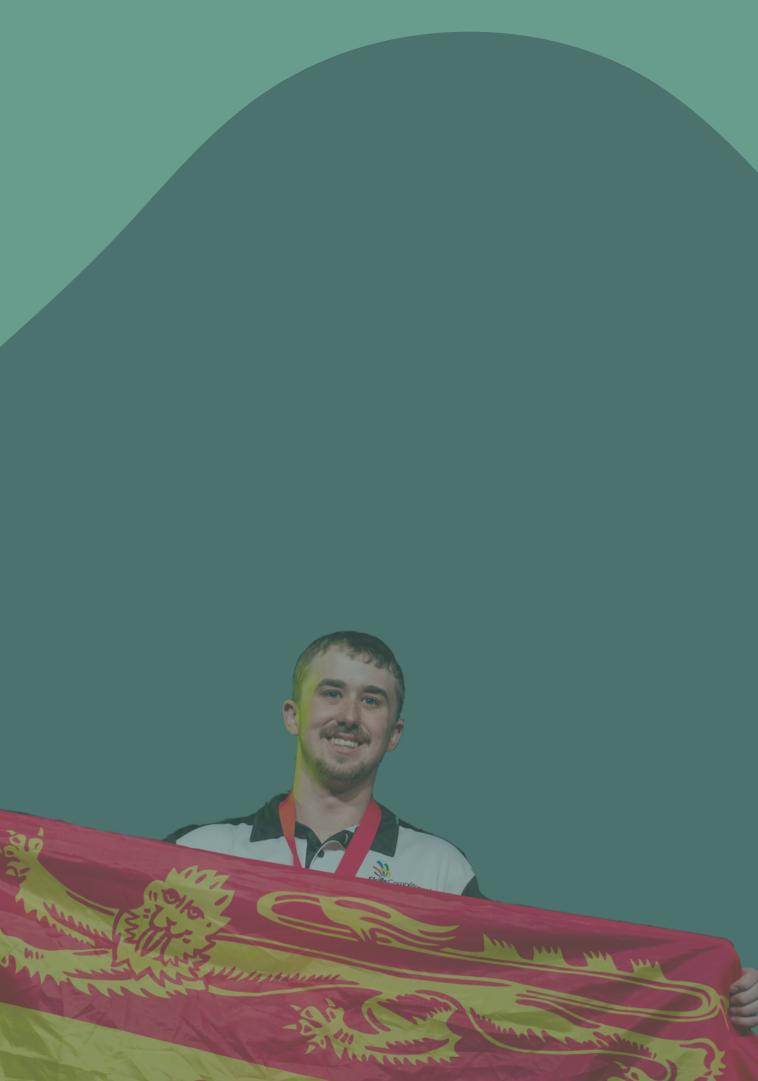
Discussion Questions

- **What does Creativity mean to you?**
- **Is Creativity the same as Innovation?**
- **Why might we (as a class) and organizations/leaders in general want to actively study these concepts? (Creativity & Innovation)**

Design Project

- **In this activity, you and your partner will design something that you feel there is a need for.**
- **This could a better phone, a device that improves air quality in schools, etc.**
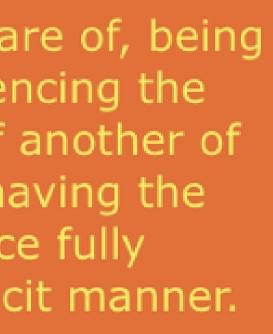- **It is up to you to decide *what there is a need for* and how it needs to be addressed.**

em•pa•thy

n. /ˈem-pə-thē/ or /ɛmpəθi/

the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either the past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner.

Merriam Webster

How Innovators Practice Empathy

- Observe and question the world around us
- Be respectful
- Withhold judgement
- Attempt to understand first

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Interview

- **You have 2-3 minutes to interview your partner about their design idea. Your goal is to take notes while you ask them about the type of design idea they have.**
- **Switch after 2-3 minutes; and repeat the process.**

Engineering Design Process

- **Ask: Identify the Need & Constraints**
  - **Engineers ask critical questions about what they want to create, whether it be a skyscraper, amusement park ride, bicycle or smartphone. These questions include: What is the problem to solve? What do we want to design? Who is it for? What do we want to accomplish? What are the project requirements? What are the limitations? What is our goal?**
- **Research the Problem**
  - **This includes talking to people from many different backgrounds and specialties to assist with researching what products or solutions already exist, or what technologies might be adaptable to your needs.**

Engineering Design Process

- **Imagine: Develop Possible Solutions**
  - **You work with a team to brainstorm ideas and develop as many solutions as possible. This is the time to encourage wild ideas and defer judgment! Build on the ideas of others! Stay focused on topic and have one conversation at a time! Remember: good design is all about teamwork!**
- **Plan: Select a Promising Solution**
  - **For many teams this is the hardest step! Revisit the needs, constraints and research from the earlier steps, compare your best ideas, select one solution and make a plan to move forward with it.**

Engineering Design Process

- **Create: Build a Prototype**
  - **Building a prototype makes your ideas real! These early versions of the design solution help your team verify whether the design meets the original challenge objectives. Push yourself for creativity, imagination and excellence in design.**
- **Test and Evaluate Prototype**
  - **Does it work? Does it solve the need? Communicate the results and get feedback. Analyze and talk about what works, what doesn't and what could be improved.**

Engineering Design Process

- **Improve: Redesign as Needed**
  - **Discuss how you could improve your solution. Make revisions. Draw new designs. Iterate your design to make your product the best it can be.**
  - **And now, REPEAT!**