



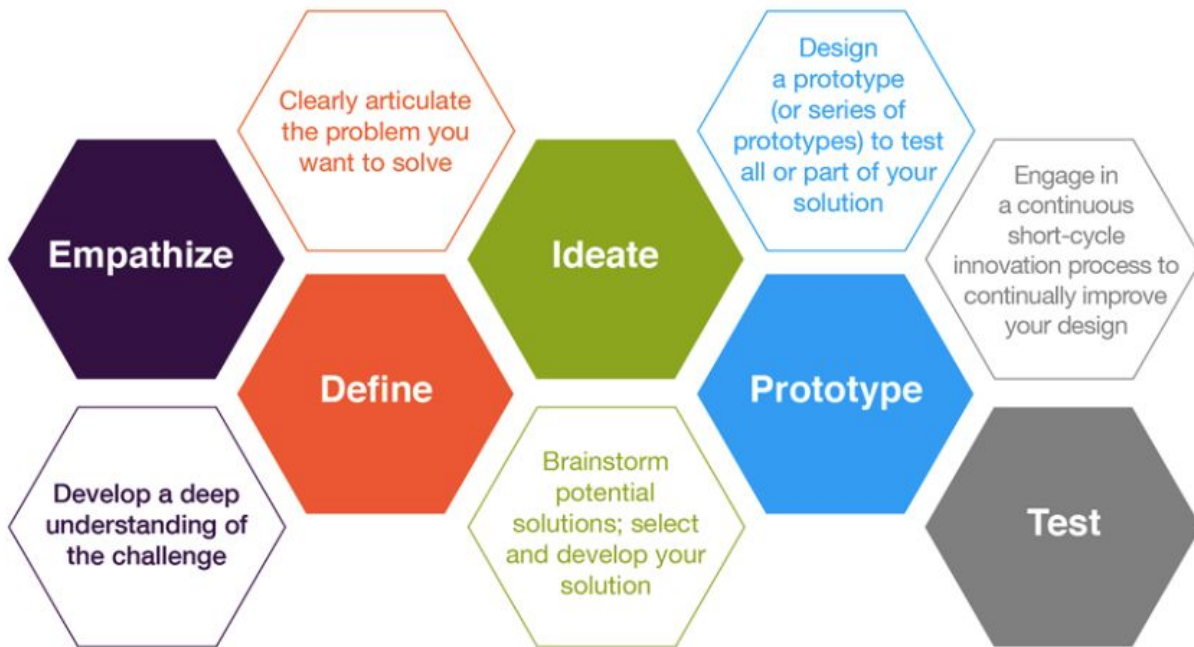
The ability to design, make, acquire, and apply skills and technologies is important in the world today and key in the education of citizens for the future.

What is Design Thinking?

Design Thinking starts by identifying and exploring a problem. Then brainstorming - imagining a whole slew of possible solutions. The best few ideas are chosen and tested out with prototypes, using feedback to help evolve and refine the ideas. And once the ideas have been tested and refined and arrived at a solution that works, the solution is created.

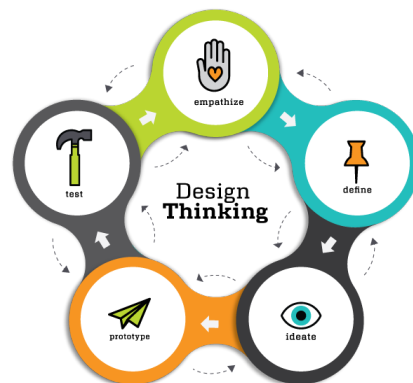
Design Thinking is a process that *scaffolds* thinking and provides **structure** to guide students through an innovative thinking process.

Design Thinking Process Elements

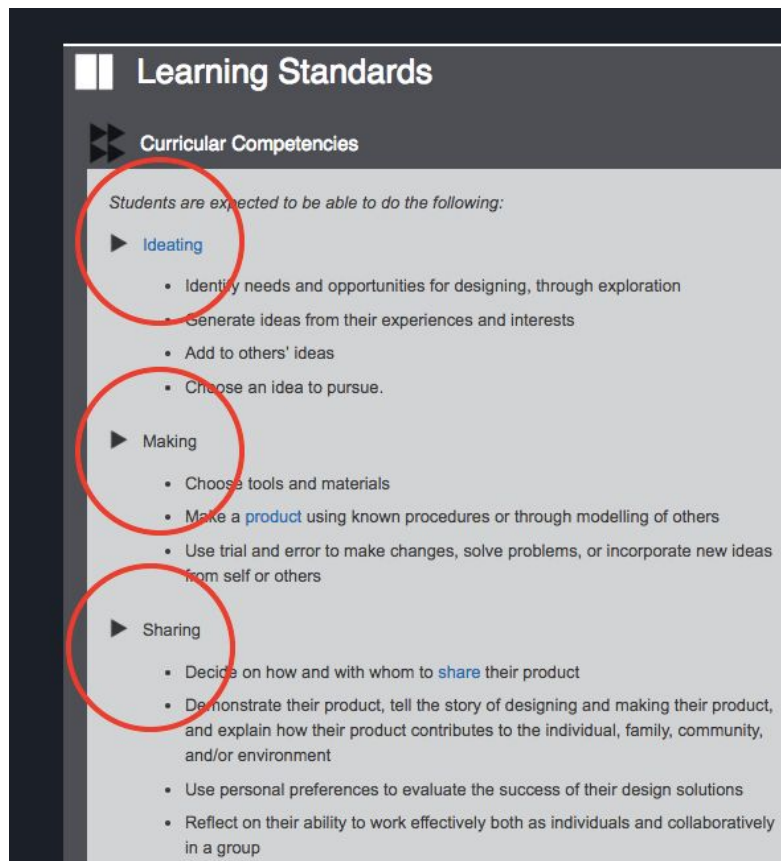


Design Thinking Process Cycle

Design Thinking is fluid and responsive. The cycle is iterative and repeats elements and steps as needed.



Where is Design Thinking in the B.C. K-12 Curriculum?



The Applied Design, Skills, and Technologies (ADST) K-12 curriculum is an experiential, hands-on program of learning through design and creation. It fosters the development of the skills and knowledge that will support students in developing practical, creative, and innovative responses to everyday needs and challenges.

In the ADST curriculum, students grow through the use of design thinking principles. This approach helps them gain understanding of how to apply their skills to both finding challenges and solving

them in creative ways, using appropriate technologies for the task at hand.

Design involves the ability to combine an empathetic understanding of the context of a challenge, creativity in the generation of insights and solutions, and critical thinking for analyzing and fitting solutions to context. To move from design to final product or service requires skills and technology.

Connections to the First Peoples Principles of Learning

Engaging with the Design Thinking process inherently acknowledges and supports many aspects of the First Peoples Principles of Learning, including:

- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
- Learning is embedded in memory, history, and story.
- Learning involves patience and time.

Design Thinking Resources

-Stanford's Design Thinking School: <https://dschool.stanford.edu/>

-The Change Agent: <http://changeagenttoolkit.org/design-thinking/>

-The Engineering Design Process: A Taco Party:

https://www.youtube.com/watch?v=MAhpFt_mWM

-Design Thinking: Apollo 13: <https://www.youtube.com/watch?v=28dUyooucgg>

-Walnut Grove students use Design Thinking to create cat wheelchair with 3D printer: <https://bc.ctvnews.ca/teens-build-wheelchair-for-amputee-kitten-with-3d-printer-1.2579811>