

Possibilities are



endless...

... but here are a few to get you started. This list is meant to show you some of the resources, programs, and experiences that we have available for Chevron Open Minds Science School classes.

You would not be able to fit all of these into your week!

Important Points:

- Each week should be unique to your class and the needs of you and your students.
- The experiences need to tie into your Big Idea and provide authentic opportunities for you and your students to be engaged and reflective.
- The experiences should serve as catalysts (SPARKS!) for other classroom experiences after science school.

Exhibits and galleries

Telus Spark's indoor and outdoor exhibits naturally compliment any class experience, and can be used to expand on ideas (see [What's on at Spark](#) for the latest gallery and event info as the exhibits do change)

Exploration in the Exhibit Galleries can be used to:

- Spark play and curiosity while building skills (the 5C's) and content knowledge
- Inspire building challenges or other STEAM experiences
- Inspire discussion, observation and sketching and reflection

Brainasium Outdoor Park

Students typically explore and experience the [Brainasium](#) during the lunch hour but other opportunities are possible in this space.

The Brainasium can be used for:

- Play and inspiring curiosity through teamwork
- Outdoor journalling (sketching, observation, data collection)
- Inspiration for design challenges or other STEAM experiences

School Program Workshops

We have a range of programs to choose from (refer to website for [latest school workshops](#)).

We can use school programs as:

- stand-alone experiences (usually 60-90 min)
- Inspiration and/or skill building for a larger project (skill or content building)
- Adapting a workshop to suit the “big idea”

Design Challenges

Telus Spark uses the design process on a daily basis, and your students can too! We will work with you to design a collaborative project. Large scale or small design challenges help your students to:

- Work collaboratively
- Build empathy
- Think creatively
- Understand the power of ideas

Beyond the walls

Telus Spark has locations nearby and onsite that can be inspiring to visit and connect to your big idea.

- Pond/wetland (on Spark Property)– nature experiences (journalling, sketching, nature play, land-based learning, data collection)
- [Tom Campbell’s Hill](#) and Offleash Park (off of Spark Property) – about a 15 walk up the hill (journalling, sketching , nature experiences, land-based learning)
- Pathways and parks along [Nosecreek](#) (off of Spark Property) (journalling, sketching, land-based learning)

Live demonstrations (Inspiration Stage) and tours

The full range of school demonstrations can be found on our [website](#). These can be followed by reflective journalling experiences and sharing. These can serve as fun, inspiration and content building.

Tours can take students to areas they have never seen before (and likely won’t again). Help students learn about sustainable design through our LEED tour. We can also customize tours with a particular focus/emphasis (e.g. architecture, sustainability).

Infinity Dome

Who doesn't love an experience in one of the largest screens in North America? View our current shows on our [website](#). These can be followed by reflective journaling experiences.

Experts

We will work with you as we are planning to see what experts might be available to support learning.

Technology Tools and Resources

Available for use during your week at Science School.

(We do have other resources - below are the most requested tools/resources)

Hands-on Robotics (gr.1-12):

Dash and Dot (gr.1-6)

Robots that help students with computational thinking and problem solving. Completely programmable, we have used Dash and Dot in coding challenges and design challenges for empathy building, and exploring the UN Sustainable Development Goals (SDGs). Learn about Dash and Dot [here](#).

Ozobots (Gr.1-12) – as stated for Dash and Dot. Learn more about [ozobots](#).

Cubelets (gr.1+)

Modular magnetic blocks that allow students to think creatively while working collaboratively to solve problems. Cubelets explore concepts like patterns, computation, and can be used as a tool to complete a design challenge. Learn more about cubelets [here](#)

Other Technology:

LittleBits (gr.1-12)

Electrically engineered “lego” style components that allow students to explore electricity and circuits. When combined with recycled materials for a design project, the only limit is the imagination! There is also a **code kit** available, to design an outcome using a block-based coding language. Learn about LittleBits [here](#).

MakeyMakey (gr.3+)

Students can transform any conductive object into a musical instrument, game controller, interactive exhibit, or whatever their creative minds think of! MakeyMakeys can be used to understand circuits, electrical engineering, build empathy, or as a material for a build/design challenge. Learn about Makey Makey [here](#)

3D Design (gr.1-12)

Students can explore geometry, mathematics, and collaborative design using [Tinkercad](#) or other online design software.

Microbits (Gr. 3 +)

Tiny and programmable, Microbits allow users to explore computer science, computational thinking, sustainable design, game design, and so much more! Code can be explored using block-based language or java script. Learn more about microbits [here](#).

Augmented Reality (AR) and AI (Gr.1-12)

Use technology like Merge Cubes to explore science content or create AR journal pages or STEAM artwork using different apps. Learn more about Merge Cubes [here](#).

AI and Coding (Gr.1-12)

Coding can be a part of the experience and it often incorporated in many of the other tools listed (e.g. microbits, dash or ozobot robots, code bits, Scratch, etc.) We are working on developing possibilities for AI and machine learning.

Pocket Lab Sensors (Gr.3-12)

Useful for collecting a range of data for analysis and content creation. (E.g. weather data, motion data, air quality data, etc.) Pocket lab info [here](#).

Other Resources

Design Challenge and Maker Materials

- Hands-on building manipulatives, prototyping materials, loose parts (we have a variety)
- Wood Working Area and tools for building (saws, drills, etc.)

Art Supplies

- Oil pastels, charcoal, sketching pencils and materials
watercolour pencil crayons, crayons, paint pucks, water brushes watercolour paper or sketching paper
- Clay (various types) and molding utensils
- Other materials (as requested for your specific project needs)

IPADS (shared resource with School Programs – not exclusively openminds)

IPADS have been used for:

- Documentation and photography
Research and identification (e.g. google lens, iNaturalist)
- Stop motion animation or digital storytelling
- Augmented Reality
- Apps upon request (if you need a certain app let us know)

Other Resources:

- Stereomicroscopes and lab equipment
- Various Books (for making Literature Connections)
- We have standard classroom materials (e.g. scissors, tape, glue sticks, pencil crayons, etc.)

If you require special materials/tools to use during your week – let us know.

This is not a comprehensive list. We do have some other resources that could complement a variety of Big Ideas we can discuss these at the planning meeting.