



The Kootenay Contraption Contest is BACK!

This annual contest invites students in kindergarten to grade 8 to use their limitless imaginations to design a “contraption” that helps solves a challenge through innovation.

KAST Youth encourages students to use critical thinking, problem solving, creativity and pitch skills to address this spring’s theme of gardening and local food security.

Participate in the classroom, as an individual, or register for in-person workshops with KAST’s Youth Tech Facilitator at Maker-Spaces across the Kootenays.

The Kootenay Contraption Contest is generously sponsored by **FortisBC** and the **Province of British Columbia**.

This year’s winners will get an opportunity to bring their ideas to life by 3D printing their very own design at a local makerspace!

Spring 2023 Kootenay Contraption Challenge:

Everyone loves home grown food or veggies from the local farmers market, it just tastes better! What contraption can you imagine to help grow food locally? It can be something for local farms, a community garden or even your own backyard garden bed or balcony box!

Create a contraption that will make it easier to grow a big, delicious, nutritious garden!

Feeling stuck?

Use the resources available to you: google searches, books about gardening, talk to your friends, parents, teachers, librarians, talk to folks who garden! Do some research in your community, get interested! What about ways to grow more food in less garden space?

Think about all the things plants need to grow! Light, water, healthy soil, how can your contraption help provide these things?

What about all the things humans need to do to help the plants? Planting the seeds, weeding and removing pests, harvesting the food when it is ripe. Can you help make their work easier?

Dig deep in your imagination and feed your curiosity! We are so excited to see what you create!

Links:

[Registration - KCC Spring 2023](#)

Sign-up for the contest, register yourself, a student, or your class. You don't need to be ready to submit in order to sign-up for the contest. This is also where you can register for in-person workshops at MakerSpaces in Nelson, Cranbrook and Revelstoke being offered throughout the month of May.

[Submission - KCC Spring 2023](#)

This is where you submit your contest entry. Simply scan the application form, or take a photo of both sides of the entry form and any prototypes you created using other materials and upload here.

www.tinkercad.com

Tinkercad is a free online 3D design application aimed at beginners and youth. Play around, explore, have fun and check out KAST's videos on how to download and submit your tinkercad designed contraption on our website - KAST.com/KCC

Follow the KAST page on Facebook or on Instagram @kastinnovation for more information and updates on the contest throughout the month of May.

Still have questions? Reach out, we are here to help - youth@kast.com

Outline

Participants: Any youth, kindergarten to grade 8

Timeline: May 1 to 31, 2023

Instructions:

Register as a whole classroom or as an individual.

[Registration - KCC Spring 2023](#)

Classroom: Are you an educator with a class of eager innovators? Register once as an educator for all your students.

The Kootenay Contraption Contest can be a fun and engaging way to augment curriculum. Use the resources in this Guidance Package and online at [KAST.com/KCC](https://kast.com/KCC) to bring the Contraption Contest into your classroom.

Individual: Anyone can create a contraption! Register as an individual if you are registering for yourself or on behalf of a youth.

Use the resources in this Guidance Package and online at [KAST.com/KCC](https://kast.com/KCC) to create and submit your very own contraption.

Workshops: KAST is offering KCC workshops at Maker-Spaces in Nelson, Cranbrook and Revelstoke open to youth K-Gr8. There is limited space, so claim your spot when you register.

Educators can host the KAST Youth Tech Facilitator for an in-class workshop. Select this option when you register your class and the KAST Youth Coordinator will contact you to discuss this potential.

Create!

Brainstorm ways a contraption could resolve this year's challenge. Design an innovative contraption and write a short description explaining how it works.

Three ways to create:

1) Draw it!

Draw your contraption then photograph or scan the image to submit!

If you like, use this prepared submission form which you can download when you register or from our website: [KAST.com/KCC](https://kast.com/KCC)

2) Build it!

Build your contraption out of lego or anything else you have available!


Photograph your contraption to submit.

3) 3D design it in TinkerCad!

This year we are including the option to 3D design your contraption in TinkerCad software! TinkerCad is a free, easy to use 3D design software available online. Beginners can start creating in 3D with simple drag and drop models.

KAST's Youth Tech Facilitator Noah has created some instructional videos to help get you started available at [KAST.com/KCC](https://kast.com/KCC). Whether you are an educator or a parent/guardian, try TinkerCad with your youth!

Designing in TinkerCad will take approximately 1.5 - 2 hours. Youth can save their designs and keep working on later.

- a) Create a free account at www.tinkercad.com
- b) Watch the videos on how to use TinkerCad created by the KAST Youth Tech Facilitator Noah available at [KAST.com/KCC](https://kast.com/KCC)
Additional instructional videos are available on the TinkerCad website.
- c) Start designing your contraption! Create a new 3D design and use the drag and drop shapes to build your contraption.
- d) When your contraption is complete, click the  icon to generate a link to your design that you can share with KAST so we can see your contraption in 3D.

TinkerCad 3D Design Workshops

KAST is offering in-person workshops with our Tech Youth Facilitator! These workshops will guide youth through using TinkerCad and give them time to work on their contraptions.

There is limited space available so use the registration form to claim your space!

[Registration - KCC Spring 2023](#)

May 9, Nelson	NDYC Maker-Space 608 Lake St. Nelson
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May 10, Nelson	NDYC Maker-Space 608 Lake St. Nelson
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May 16, Cranbrook

Maker-Space
131 - 7 Ave S. Cranbrook

May 17, Revelstoke

Idea Factory
301 Victoria Rd. W. Revelstoke

In-Class workshops: Are you an educator and would be interested in having the KAST Youth Tech Facilitator come into the classroom to host a workshop? If so, use the registration form to contact us and schedule an in-class workshop between May 22 – 26th.

Submit your contraption!

No matter how you choose to design your contraption, use one of the following methods to submit your creative solution for a chance to win cool prizes.

Be sure to include a description of how your contraption will help solve this year's contraption challenge! Descriptions can be written on the submission form then submitted as a photo or typed directly into the KAST submission page.

Submit your creative contraption and description of how it will help solve this years challenge by following this link: [Submission - KCC Spring 2023](#)

Alternate submission methods:

Email your submission to youth@kast.com

Mail your submission form to: KAST – Nelson Innovation Centre
91-D Baker St.
Nelson, B.C., V1L 4G8
Canada

Or drop-off printed submission forms to the KAST Offices at the NIC

Judging

The panel of judges from KAST and our amazing sponsor FortisBC will go through all the submissions and select winners in each grade category!

WIN!

If you are one of the winners, you will get a 3D printed version of your very own contraption!

Our Tech Facilitator will review the winning designs and confirm they can be 3D printed. If the design was not created in TinkerCad you will have the chance to attend a Winners

workshop to create a 3D design based on your original idea so that it is ready to 3D print.

Submit your contraption and entry form by May 31, 2023 4pm PT

Questions? Email youth@kast.com