**iLab @ Home**

Cascadia Elementary School

At-home learning suggestions for families to bring the iLab into your home.

*Making, tinkering, engineering, and more!*

*-iLab coordinator Kristen Bergsman, Laughing Crow Curriculum*

Throughout the school year, many classes visited the iLab makerspace to engage in design, making, and engineering projects. Our school makerspace is stocked with many of the same things you likely have at home: paper towel rolls, tape, foil, paper clips, paper scraps, cardboard, buttons, and more. The types of projects that students tackled in the iLab are also great for at-home learning using household supplies. As we round out the school year and head into the summer, here are some resources to inspire Cascadia dragons and their families to continue designing, making, building, and tinkering together. ***Ready, set, create!***

**Pacific Science Center: Tinker Tank at Home**

<https://www.youtube.com/playlist?list=PLSh2l8jOpghZUtpFvmBP8m5mUIYe1fTl6>

Design, build, test, and repeat! If your kids love the Tinker Tank area of Pacific Science Center, they’ll enjoy these activities to try out at home. Check out their [YouTube playlist](https://www.youtube.com/playlist?list=PLSh2l8jOpghZUtpFvmBP8m5mUIYe1fTl6) of instructional videos, each featuring a do-it-yourself activity. Build a milk carton boat, create a carbon-dioxide rich atmosphere, make squishy circuits, and more.

**Storybooks + Extreme Engineering Design Videos**

<https://www.youtube.com/channel/UCY1kMZp36IQSyNx_9h4mpCg>

Former NASA engineer and creative inventor Mark Rober has a YouTube [channel](https://www.youtube.com/channel/UCY1kMZp36IQSyNx_9h4mpCg) that will amaze your kids (and you!), and might inspire them to design and create their own inventions to solve everyday problems. What problems can your kids find around your home that they could solve with an invention? (Parents are encouraged to preview Mark’s other videos before sharing with kids to ensure they are appropriate).

* To introduce the engineering design process, watch this short video that shows Kurt Steiner’s [world record for rock skipping](https://thekidshouldseethis.com/post/the-2014-stone-skipping-world-record-kurt-steiner-with-88-skips#:~:text=More%20videos%20on%20YouTube&text=On%20September%206%2C%202013%20in,Yes%2C%20eighty%2Deight.) (88 skips!) and then watch Mark Rober’s video [Rock Skip Robot: The Science of Perfect Rock Skipping.](https://www.youtube.com/watch?v=M0_U1FHwACk)
* Then check out this read aloud of the storybook [*Those Darn Squirrels*](https://www.youtube.com/watch?v=hQo0fvj-5ms) by Adam Rubin and then watch Mark Rober’s video on [Building the Perfect Squirrel Proof Bird Feeder](https://www.youtube.com/watch?v=hFZFjoX2cGg).

**NASA: NASA at Home for Kids and Families**

<https://www.nasa.gov/nasa-at-home-for-kids-and-families>

Did the recent NASA/SpaceX launch and docking at the International Space Station get your kids super excited about space travel? [NASA at Home](https://www.nasa.gov/nasa-at-home-for-kids-and-families) provides science and engineering activities, videos, podcasts, virtual tours, and more for kids to explore at home. Also try getting your kids to think of questions about what life and work aboard the International Space Station might be like, and then look for videos online in which ISS astronauts explain the science, engineering, and technology behind the answers.

**Kids Books on Science, Engineering, and Design**

Do your kids love the books [*Ada Twist Scientist*](https://www.youtube.com/watch?v=8EuojVxfSBc)*,* [*Iggy Peck Architect*](https://www.youtube.com/watch?v=18B8WMJdTCQ)*,* and [*Rosie Revere Engineer*](https://www.youtube.com/watch?v=r5yZ8K7pb0Y)  (this last one is read by an astronaut at the International Space Station) by Andrea Beaty? Check out these read-alouds and then look for more books in this fantastic series, and others that highlight the work of adults and kids engaging in design and engineering. Check out e-books from the Seattle Public Library or try the EPIC app, which currently offers a free 30-day trial and gives you access to thousands of kid books, including ones focused on engineering, science, coding, technology, and more.

**American Society for Engineering Education: Daily Design Challenges**

Consider joining the [ASEE P12 Instructors and Parents](https://www.facebook.com/groups/687366151802693/?ref=gs&fref=gs&dti=1534885713335817&hc_location=group) private group on Facebook for K-12 daily design challenges! Each day they post a new engineering design challenge that can be completed using household supplies.

**Purdue: A Parent’s Guide to Introducing Engineering at Home**

<https://engineering.purdue.edu/INSPIRE/Resources/Parent_Guide>

Check out this *brief* [parent resource guide](https://engineering.purdue.edu/INSPIRE/Resources/Parent_Guide) to support parents of Grades PreK-5 children in introducing engineering and design projects at home.

*We hope you have fun designing, inventing, creating, tinkering, engineering, and building*

*at home this summer!*