YEAR of {C0DE}
WATERLOO REGION

Learn to Code!

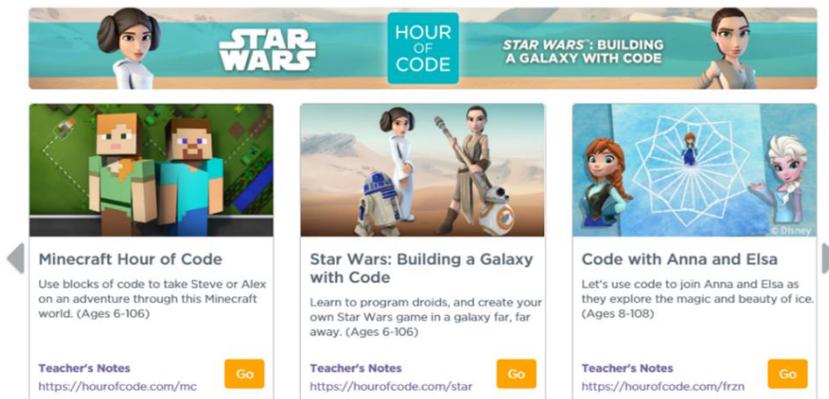These FREE apps can be used online at home, library or school.
Find more Learning Resources at www.yocwr.ca.

START here: www.code.org/learn

These fun coding puzzles use characters and environments from Star Wars, Frozen and Minecraft and others to get you started learning how code works. As the video introduction explains, computers are not smart, they need to be told every little thing. With these puzzles you will train your brain to recognize each instruction you

need to give your character in order for it to complete a task.

There are lots of activities on this site, so you can keep playing and learning!

If you create an account (free), you can save and share projects like the Flappy Bird game, and get access to more activities to really learn code.

Ready to learn more?

NEXT go here: https://scratch.mit.edu/

Scratch was created by MIT as a fun learning environment that helps you create with drag-and-drop blocks of code. It is designed for kids 8 to 16, but all ages use it to learn. Younger kids can play with Scratch, too, with help from a parent or sibling to read words they don't yet know. There is also a Scratch Jr app for iPad and Android tablets for kids 6 and under: http://www.scratchjr.org/.
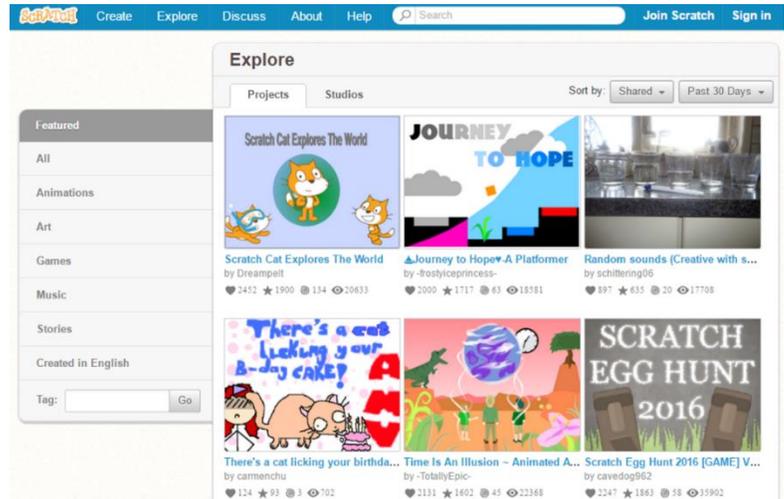
There is a whole community on Scratch of kids sharing projects. Parents may want to make sure they are ok with the sharing settings for their child's project, but no personal information is ever shared, just the project itself.

Shared projects let kids learn from each other and even copy code scripts to try in their own projects.

Scratch offers a deep set of tools and options for creating projects. You can make your own images and backgrounds to animate, or use the library of images provided. Start by learning to move a character, add sounds, and actions. Then learn how to make a game! There are several tutorials available on the Scratch site. If you want to learn to create a simple ball game, download the **"Introduction to Scratch"** tutorial on www.yocwr.ca in the Learning section.
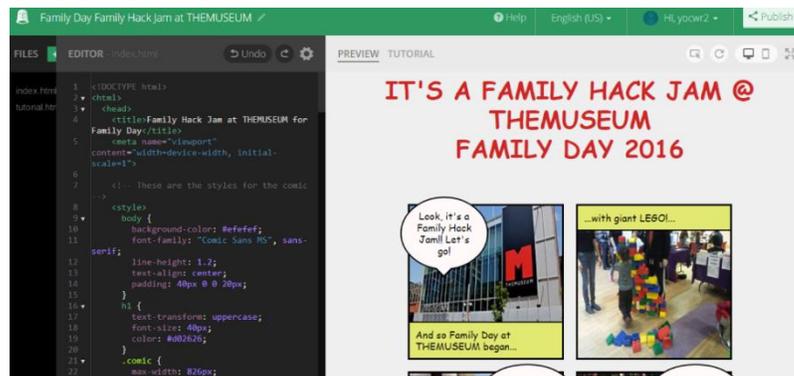
Become a Pro! Learn to create web pages with HTML, CSS and JavaScript next.

MOVE on to Thimble here: https://thimble.mozilla.org

When you're ready to move beyond drag-and-drop programs, Thimble is an online code editor where you can learn HTML, CSS and JavaScript by editing real code. There are six projects provided with tutorials included, so you can see how to change colours, text, add pictures, links and interactions.

HTML, Hypertext Markup Language, is the code used for most web pages to provide instructions on how to display content and its placement. **CSS, Cascading Style Sheets**, is similar to setting up a style sheet in Word, where you specify the font and size of text. **JavaScript** helps to add interaction on your site, like a popup window or animated buttons.

The Thimble environment gives you a two-sided page so you can see both your code and the web page you are creating. It also offers clues for you when hovering over certain bits of code if you are using a Firefox or Chrome browser. You can save and publish your projects for others to see and they can choose to edit and make their own versions.

About Year of Code Waterloo Region

Year of Code Waterloo Region is a one-year charitable campaign to increase digital literacy in Waterloo Region, funded through corporate sponsors. On July 1, 2016, we will become HIVE Waterloo Region, one of the HIVE Learning Communities recognized by the Mozilla Foundation. Sign up to our newsletter to keep informed of events and learning resources in Waterloo Region: www.yocwr.ca/subcribe.