DYNAMIC MATH
dynamicmath.ca

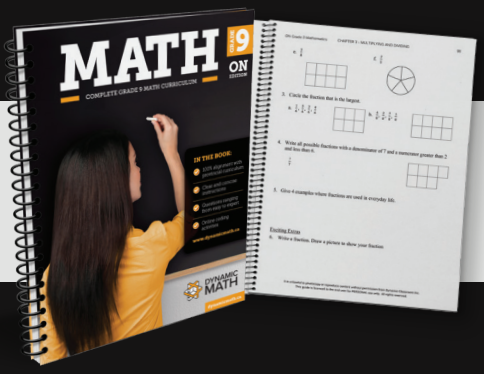
Learn Coding

CODING ACTIVITIES

Whether you are just starting out with coding, or a bit of a coding wizard, we have some fun coding activities that we know you're going to love.

What are the activities like?
Our coding activities are a lot of fun and will show you exactly how to make your own video game! Our activities include:

- **A Scratch project that you can save to your own account and play around with.**
- **Step-by-step instructions on what to do, including videos that take you inside of Scratch.**
- **Suggestions and ideas that will challenge you to take your coding skills to the next level.**



As a part of your Dynamic Math book purchase, we are pleased to provide access on our online coding activities!

For more information, visit dynamicmath.ca/coding

Getting Started With Our Coding Activities

Taking your class online

NOTE: Our coding activities use online block-based coding platforms called Scratch and mBlock. Scratch is used for the **Beginner** and **Intermediate** coding activities, while mBlock is used for our more **Advanced** coding activities.

We recommend students setup a free account with Scratch and/or mBlock before trying these activities. This allows them to save their work. We provide information and links on how to setup these accounts on our website.

STEP 1: Have your students go directly to our coding activities here: https://www.dynamicmath.ca/coding

STEP 2: On the "Choose Your Grade Level" page, select the appropriate option

STEP 3: Proceed through the introductory material (including setting up your Scratch or mBlock account), and then jump right into the activities.

How are the activities organized?

The activities are organized into 3 categories – **Beginner, Intermediate and Advanced.**

The **Beginner** level is aligned with grades 3-5 of the Ontario curriculum, but these are also great activities for anyone that's new to coding, and especially for anyone that's new to using block-based coding platforms like Scratch.

The **Intermediate** level is aligned with grades 6-8 of the Ontario curriculum. These are great activities for anyone that has some knowledge of Scratch as well as some of the more intermediate coding concepts like using conditional statements and sub-programs.

The **Advanced** level is aligned with grade 9 of the Ontario curriculum and is where we transition over to using mBlock instead of Scratch. This allows students to begin to get some exposure to the actual code (Python) that these block-based coding programs are utilizing.

We also have a **Getting Started** section where we have an "Introduction to Scratch" video as well as some additional information in our "Extra Help" section.

How is activity laid out? How long should they take?

Each activity is laid out as a series of guided steps that are designed to take the student through the activity without much assistance. Within an activity, there will be a few short videos, as well as some guided instructions on completing the challenges.

Several of our activities also have extensions (bonus challenges) at the end, where students are challenged to take the activity even further. These are great for your students that are a little more advanced and are always looking for more!

Each activity is designed to take approximately 60-90 minutes, although some students will finish quicker, and some may need more time. It might be a good idea to try and split up an activity into 2-3 classes, especially for younger students. This is why we highly recommend that students sign up for Scratch and mBlock accounts, so they can save their work, and come back to it in another class, or at home.

We want to hear from you!

We would love your feedback and any suggestions you have for additional coding activities or content.

Please reach out to us at the following email address:

coding@dynamic-classroom.ca

From the team at Dynamic Math,

Thanks!

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