

Frequently Asked Questions

This FAQ has been compiled with the most common questions from teachers and administrators about the [Coding as Another Language \(CAL\) ScratchJr Curriculum](#). Questions are organized using the following categories: ScratchJr, CAL Curriculum and Curriculum Management.

ScratchJr

What is ScratchJr?

[ScratchJr](#) is the most popular freely available programming app for young children worldwide. ScratchJr is a visual, block-based programming language that allows young children (ages 5-7) to create their own interactive stories and games. In the process, they learn to solve problems, design projects, and express themselves creatively on the computer. It is available for iPads and touchscreen Android tablets and Chromebooks.

Is ScratchJr the same as Scratch?

[Scratch](#) is a block-based visual programming language hosted on a website targeted primarily at children ages 8-16 as an educational tool for coding. In contrast, [ScratchJr](#) is designed for children ages 5-7. Programming in Scratch requires basic reading skills, so the creators saw a need for another language which would provide a simplified way to learn programming at a younger age.

Is there a ScratchJr instruction manual I can refer to or read ahead of time?

Yes, there is a guide to ScratchJr written by the app creators Professor Marina Umaschi Bers of the DevTech Research Group at Tufts University and Mitchel Resnick of the Lifelong Kindergarten Group at the MIT Media Lab. This book is an easy-to-use, hands-on resource for parents and educators to teach children how to code with ScratchJr. Read an [excerpt of the book](#). You can get your copy through [No Starch Press](#) or [Amazon](#). You can also get the ScratchJr Coding cards through [No Starch Press](#) or [Amazon](#). The [ScratchJr website](#) also has resources to assist with learning the ScratchJr interface, blocks, and the paint editor.

Can I use ScratchJr on a personal computer or a smartphone?

The ScratchJr app only works on touchscreen tablets. Please refer to the device parameters for downloading ScratchJr below.

- The [Android version](#) of ScratchJr requires an Android tablet, 7-inch or larger, that is running Android 5.0 or later.
- The [iPad version](#) of ScratchJr requires an iPad 2 or later (includes all iPad Minis), that is running iOS 8.0 or later.
- Any Chromebook that is compatible with the Google Play Store can install the Android version of ScratchJr.

Can I use ScratchJr on Amazon tablets?

No.

Do I need to be connected to WiFi/internet when using ScratchJr?

You do not need internet while using ScratchJr, but you will need internet to download ScratchJr for the first time on your device, as well as to export ScratchJr projects.

Is ScratchJr safe to use for K-2nd graders?

Parents or teachers help students download the ScratchJr app onto devices and students are not connected to the internet while creating their projects.

CAL Curriculum

What is the CAL curriculum?

The [Coding as Another Language \(CAL\) curriculum](#) consists of 24 lessons of 45 minutes that engages young children in developing computational thinking, problem solving, and collaboration skills while learning how to create their own interactive projects with ScratchJr. It also supports foundational math, reading, and language arts skills that are commonly taught in early childhood classrooms.

What is the CAL approach?

The Coding as Another Language (CAL) approach, developed by [Prof. Marina Umaschi Bers](#) and members of her [DevTech Research Group](#) at Tufts University, explores ways in which the process of teaching coding to young children can resemble the educational process used for teaching literacy and a second language and seeks to identify the overlapping associated cognitive and cultural mechanisms.

Do I need to know coding or have computer science experience to teach this curriculum?

No background in coding or computer science is needed. Our lesson plans and classroom activities are designed to support both you and your students!

Is the CAL-ScratchJr curriculum free?

Yes, the CAL ScratchJr curriculum is free. The work is funded by the US Dept of Education and by the Scratch Foundation.

Where has the CAL-ScratchJr curriculum been used before?

The CAL-ScratchJr curriculum has been implemented with our guidance for educational research in classrooms in Massachusetts, Minnesota, Arkansas and California, and abroad in Argentina. Other teachers, schools, and school districts have also used our freely available curriculum.

Is the teaching of the CAL-ScratchJr curriculum entirely on screens?

No. The CAL-ScratchJr curriculum integrates coding (on devices), “unplugged” activities (without devices), literacy activities like book reading, center-based learning and social games, body movement, and music.

On the CAL curriculum website, I see ScratchJr and KIBO - What is KIBO?

The CAL-ScratchJr curriculum uses the free downloadable ScratchJr app on a tablet while [CAL-KIBO curriculum](#) uses the screen-free KIBO robotics kit for young children (ages 4-7). Children can engage in creative programming with KIBO by using the robot’s embedded barcode scanner to sequence and scan tangible wooden blocks. The kit also includes blocks, sensors, motors, modules, and art platforms. KIBO was developed by [DevTech Research Group](#) at Tufts University and is commercially available through [KinderLab Robotics](#). The CAL-KIBO curricula are designed for children in preschool through second grade.

Classroom Management

How much time should I spend preparing for the lessons?

This depends on class structure, number of students, and your expertise teaching coding. Teachers tell us they spend 10-30 minutes to prepare for lessons.

How often do I have to teach the lessons?

We encourage two lessons of 45 minutes a week for a period of 3 to 4 months. Recognizing that teaching programming in an early childhood setting requires careful planning and ongoing adjustments, teachers may make adjustments to develop a structure that best supports student learning in their classrooms.

What class sizes are ideal for teaching this curriculum?

The curriculum has been designed for typical K-2 class sizes. The curriculum refers to whole group as well as small group or individual work. Whether small groups or centers are feasible depends on the number of teachers available to supervise the groups and the capabilities of the technology, which may be limited for a number of reasons. However, an effort should be made to allow children to work in as small groups as possible, so that they have a chance to actively participate. If small groups are not possible, individual work sessions should be encouraged throughout the class time.

How can I encourage communication during project sharing?

The curriculum includes numerous opportunities to promote conversations which are enriched by multiple voices, viewpoints, and experiences. Some classes may have these discussions as a whole group. Other classes may be able to break up into smaller groups to allow more children the opportunity to speak and to maintain focus. Whether in small groups or whole class discussions, communication must be emphasized throughout. When learning to code, children are learning to express their ideas. Being able to verbalize those ideas and connect with other children is an integral piece of the curriculum.

Can I replace the books in the lessons?

Yes. Teachers may choose other age-appropriate books to replace the fiction and non-fiction books listed in the curriculum.

How can I support students at varying levels of skill with ScratchJr?

As students build skills, it is expected that some students will go faster while others will have a slower pace. Teachers can encourage open-ended creative endeavors for students to follow their curiosity to create projects on their own and then share with others.

How do I balance students' time between coding and customizing their characters?

Some students enjoy customizing their characters more than others. Personalization can foster children's creativity and self-expression. However, if you notice a child is only spending time on one aspect of ScratchJr you can encourage them to explore others. One way to foster this is by giving children specific jobs or roles during group play (e.g., programmer, designer, presenter).

What do we do if children are too focused on their tablets during off-screen time?

Creating a designated tablet area and "taking out and putting away our tablets" routines can be helpful so that children aren't distracted by their tablets for the entire session.

Can the CAL ScratchJr curriculum be taught virtually?

Throughout this curriculum, we offer suggestions of how to effectively teach in a virtual classroom but recognize that issues and solutions other than those described may arise. From classroom to classroom, teachers should find what works in their particular circumstances. As teachers everywhere are adapting to the challenges of learners in-person or virtual or both, we encourage you to use technology as well as any other teaching tools/practices that work to engage and connect with your students. In general, providing and teaching a clear structure and set of expectations for using materials and being present and engaged over a virtual platform will be beneficial. These include developing routines such as end of class wrap up discussions, using the raise hand feature on a virtual platform, introducing center times, and utilizing break out rooms for small group sharing. Additionally, in order to keep classes engaging, we provide a

series of pictures and videos as a part of the curriculum materials. Visual aids can facilitate children's attempts to answer their own questions and recall new information and are useful for drawing the children's attention back to their virtual platform screen.

Can my students play with ScratchJr at home too?

Students will have varying levels of interest. Just as students who learn to read in school are encouraged to read at home to practice, exploring ScratchJr at home will help reinforce skills. Family engagement and informal learning experiences with ScratchJr can foster many positive learning outcomes in children.

How can I tie ScratchJr into other parts of the students' school day?

There are many creative ways to bring what the students are learning in math and language arts, science and social studies as well as art, music, health and safety, and physical education. These ideas can come from the teachers and also from the students.

Do you have a curriculum assessment so I can see what my students have learned? “Show What You Know” is a quick synchronous classroom-based summative assessment of ScratchJr skills that is embedded near the end of the curriculum in Lesson 22. It is designed to briefly touch on the main topics of the curriculum and check for comprehension much like the “Checks for Understanding” that are interspersed throughout.

Is there a summary of the lessons that can give a big picture instead of going through each lesson?

We have recently added a visual overview for the full curriculum of each grade in the form of a roadmap. In addition, new visual overviews for each of the 24 lessons provide useful summaries of activities, vocabulary, as well as connections to powerful ideas.

Do you have sample projects I can show my students?

We have recently added sample projects to the curriculum website. These show a range of projects so that teachers can get ideas or show students. These projects help teachers and students recognize that there is no “one right way” or “best way” to create projects, encouraging the creativity and imagination of students to use a variety of characters, settings, and blocks to personalize their projects.

Can I print the Design Journals sheets for all the lessons at once? What about the Checks for Understanding?

Yes. The full Design Journal can be printed ahead of time for students from the introduction section of the curriculum as well as the Necessary Materials section of Lesson 1. The “Check for Understanding” sheets do not need to be printed and can be projected in the classroom by the teacher for quick informal “thumbs up” or “thumbs down” poll of students' understanding.