

Tips and Conversation Starters for Families

START BUILDING SKILLS FOR THE FUTURE TODAY

When thinking about the skills young people need to take advantage of future technological opportunities, we often focus on hard skills, such as coding and web design. Learning these types of skills is important, but as technology changes so will they. Computer coding languages that are used now may not even exist in the future. That's why it's important for young people to develop soft skills, such as effective communication, teamwork, problem-solving, and creativity. When you talk to your child about what they are doing online, show them how their actions could connect to future career opportunities. For example, young people may develop communications skills while using social media. And while not all online games are appropriate for children, some are designed to help them build skills like teamwork and creativity. You can also use online gaming to talk to your child about problem-solving skills. When they encounter a challenge, help them keep calm, approach it from different angles, keep track of the methods they use, and persist. These are the same skills they can use to solve problems at a future job.

START A CONVERSATION ABOUT BUILDING SKILLS FOR THE FUTURE:



- What's your favorite online video? How do you think the creators came up with the idea? Have you ever thought about making a video of your own?
- Have you ever faced any challenges while gaming online? What did you do to overcome them?
- Have you ever had to work with a classmate through email or chat to complete a school assignment?
- What are some of the challenges of working with people online instead of face-to-face?

Tips and Conversation Starters for Families

ENCOURAGE ENTREPRENEURSHIP

Digital opportunities skills can help young people prepare to join tomorrow's workforce: They can also prepare young people to lead it. Help your child see themselves as a creator as well as a consumer of digital technology. Start by reminding your child that every technology we enjoy today didn't exist at one point — someone had to create it. Then look for stories about young people who have created new platforms or used digital technology to find innovative solutions to problems. Help your child learn more about careers that match their interests and the skills they would need to succeed. For example, if your child likes art, they may be interested in starting their own graphic design firm.



START A CONVERSATION ABOUT DIGITAL ENTREPRENEURSHIP:

- Do you think young people can run their own businesses? Why or why not?
- If you started your own business, what would it be about? How could you use the internet to help you?
- If you could create your own app, what would it be about?

Tips and Conversation Starters for Families

ADVOCATE FOR ACCESS TO DIGITAL LITERACY SKILLS

Most schools want to help their students learn digital literacy skills, but they may not have the resources to provide high-quality instruction. You can advocate for your child's right to education about digital technology. Start by asking your child's school what it is doing to prepare its students to take advantage of future opportunities in technology. What resources do they have? Are lessons about the internet, digital literacy, and technology a standard part of your child's curriculum? If not, find out why. This will help you know how to best advocate for your child — whether it's contacting officials to get more resources or getting changes made to the school's curriculum. You can also offer your school solutions. The "My Digital World" program is just one of the many, often free, resources available to help educators bring lessons about technology into their classrooms. Share these programs with your child's school and make sure that your child is receiving the knowledge they need to thrive in the digital future.



START A CONVERSATION ABOUT ACCESS WITH YOUR CHILD'S SCHOOL:

- What technological resources are available for my child?
- How are educators integrating the use of technology into my child's assignments?
- Is my child being taught digital literacy and computational thinking skills?

Tips and Conversation Starters for Families

GET CURIOUS

Not all of us are digital technology experts, and that's okay. If you model an open and curious attitude toward learning technological skills, your child will be encouraged to learn about it too. Let your child know that you think these skills are important and make time for the two of you to learn them together. For example, you can watch videos explaining computational thinking in order to learn more about it and related skills, like analyzing data and developing algorithms. You can also ask your child to teach you about what they are learning in school. The act of explaining it to you will help them review the skills and deepen their comprehension.



START A CONVERSATION ABOUT LEARNING DIGITAL SKILLS:

- What digital skills are you interested in learning?
- Are there any digital skills you think I should learn about?
- Let's watch a video about (e.g., coding, computational thinking, algorithms, etc.).

The point of this exercise is to learn how precise an algorithm is. If a software engineer doesn't include every step exactly, the algorithm simply won't work.

Activities for Families

WHAT'S AN ALGORITHM?

An algorithm is a precise set of instructions that can be used to complete a task. This activity will help your child understand more about how algorithms work and how to develop them.

1. Tell your child: **An algorithm is a set of step-by-step instructions for completing a task. We usually think about them in terms of computers, but you're probably using algorithms without realizing it. When have you followed instructions to complete a task?**
2. Tell your child: **Cooking recipes and instructions for building furniture are some examples of algorithms. Let's create our own algorithm for something we do at home.**
3. Have your child pick a common task in your household such as making the bed, washing and/ or folding laundry, cooking a meal, or setting the table. Ask them to write down all of the steps necessary to complete the task in the correct order.
4. When your child finishes, have them read the steps aloud as you follow them. Make sure to follow the steps exactly. For example, if the task is to cook something, but your child doesn't tell you to open the ingredients, follow their instructions using the unopened containers. Your child will soon see that they're missing a step!
5. When you have finished following your child's instructions, ask them if the task was completed correctly. If it was not, ask them to add steps or otherwise edit their instructions to help you complete the task. Ask them to read the instructions again as you follow them. Keep going until your child's algorithm guides you to the end of the task correctly.



CHALLENGE

If your child is interested in exploring algorithms further, try the activity "Strong Passwords" in the Digital Foundations section.

Activities for Families

PATTERN MATCHING

Analyzing data patterns is an important computational thinking skill. This activity will help your child understand how they can answer questions and solve problems by looking for patterns in data.

1. Print out an image derived from an online source or cut one out of a newspaper or magazine. Try to choose a colorful image with several distinct parts. Cut the image into squares of equal size. The more squares you create, the more challenging the activity will be for your child. Set the squares aside.
2. Describe the following scenario to your child: **You've won a free smartphone in a store contest. To claim the phone, you have to arrive at the store at 5pm. A friend has offered to give you a ride, but that friend has been late the last 10 times you've met with them.**
3. Ask your child: **Would you accept a ride from that friend or ask someone else? What helped you make your decision?**
4. Tell your child: **In our scenario, you gathered data and saw a pattern in your friend's behavior: They were often late. We look for patterns in data to help us make decisions, answer questions, and solve problems all the time.**
5. Tell your child: **Putting together a puzzle is a form of looking for patterns in data. In this case, the data is the puzzle pieces. The patterns you find are what allow you to put them together.**
6. Pull out the squares you created earlier. Let your child try to put them back together. As they work, encourage them to think about how they are interacting with the data:
 - What patterns do you see?
 - How do you decide which patterns fit together (e.g., matching color, shapes, and textures)?
 - Are there any pieces that don't fit together? How could you tell?