Pedagogy Pointers

CS Journeys is an easy-to-use resource designed by Code.org to help students make real-world connections and give them opportunities to explore different career pathways. On the website you will find:

Virtual events: CS Journeys offers actual field trips and opportunities for students of all ages to hear from real professionals in the field speak on what having a career in computer science field really involves. Students can board NASA's Orion spacecraft and discover the inner workings of the technology that flew to the Moon or hear from a pipeline technical director who helped create visual effects for movies such as Star Wars: The Last Jedi. Use these engagement opportunities to excite and inspire your students to keep learning CS! While there are no Virginia standards for the impact of technology on work for K-4, the virtual chats are open to those grades as well. Align with CS 2.1.3, 3.1.4, 4.15, and 5.14.

Virtual field trips and career chats

Exploring Computer Science with Younger Students

Videos and materials: CS Journeys also provides videos and classroom posters that feature people who work in computer science as well as familiar famous faces encouraging students to consider computer science careers. Many of these materials align with culturally responsive teaching principles, such as providing role models that students can relate to and identify with. Align with CS 2.3, 3.1, 4.15, and 5.14.

Careers with Computer Science

Computer Science careers

Computer science (CS) integration at the K-5 level is essential in expanding opportunities for students to explore and enter computer science pathways at the 6-12 level. There are two primary CS pathway options. Students can explore a computer science pathway or a career technical education (CTE) computer science career-focused pathways. Courses within the computer science pathway include but are not limited to AP Computer Science A, AP Computer Science Principle, Computer Science Foundations, and Computer Science Programming/CTE. Courses within the CTE pathway include but are not limited to AP Computer Science A, Programming, and Game Development. CS pathway decisions should be made through a comprehensive review of students’ interests and long-term goals.

Engaging All Learners

Career exploration and preparation is often featured at the second level, but it is never too early to spark interest in career pathways. Because we know that females and people of color are underrepresented in career pathways in STEM (including computer science), it is important to incorporate activities at the elementary level to engage these students in career-themed investigations and activities that promotes curiosity and provide enrichment experiences. Ideally, these activities and experiences should incorporate a cultural component to support interest in innovative, STEM careers, perhaps through female and minority role models. For example, Tech offers a suite of free resources for educators, parents and students that can provide hands-on experiences through a variety of options, including multimedia presentations, interactive platforms, and unplugged activities to learn about STEM contributions made by groundbreakers, inventors, and change-makers of color – both modern day and throughout history. Click here to explore these resources and learn more about how you can take them to ignite discussions on career pathways in your classroom.