ARCS NEWS

Advancing Rural Computer Science

Announcements
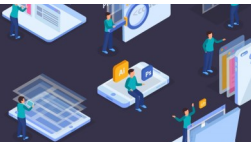
Greetings!

We have some super important news! Please complete this form by **February 16th** to let us know your preferred CS classroom resources. https://odu.co1.qualtrics.com/jfe/form/SV_4ZzUN4Bga5ZES7s

If you would like to participate in upcoming online demonstrations of some of these products, please join these sessions:

Wednesday, February 09 at 4pm - Beebot

Join Zoom Meeting**:** https://us06web.zoom.us/j/83962860523?pwd=Y0FCMU1Pb2NYNE5YMlpSRSt4cG9LUT09

Meeting ID: 839 6286 0523 Passcode: 166090

Thursday, February 10 at 4pm - Sphero

Join Zoom Meeting**:** https://doe-virginia-gov.zoom.us/j/82415623694?pwd=Y095WDdaUVA4RlJxbGNYQjdBSkJhZz09

Meeting ID: 824 1562 3694 Passcode: 584881

The ARCS Team

Concept Corner

Computer science is a booming, high-paying field with a vast array of career paths. According to the Bureau of Labor Statistics, the job growth outlook in this sector from 2020 to 2030 is 22%, which is much faster than average.

Depending on their chosen path, workers can find themselves animating the effects for a movie, protecting the environment through the analysis of scientific data, or ensuring national security. Nine out of ten computer science positions require a bachelor's degree. Virginia's colleges and universities provide in-person and online programs in applied computer science including cybersecurity, data analysis, data science, software engineering, and many others.

Computer and Information Research Scientists : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics (bls.gov)

IT vs. Computer Science: Which Degree Is Right for You? [Infographic] | Rasmussen University

Pedagogy Pointers

Virtual events: code.org offers virtual field trips and opportunities for students of all ages to speak with real professionals in the field of computer science. Virtual field trips with NASA are returning in February, as are several dates for elementary-aged students to hear about what having a career in a computer science field involves. While there are no Virginia standards for the impact of technology on work for K-1, the virtual chats are open to these grades as well. Aligns with CS 2.13, 3.14, 4.15, and 5.14.

code.org virtual events
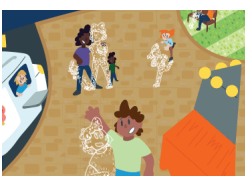
code.org's computer science pathways hub
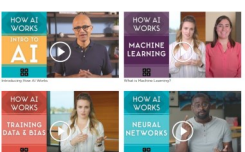
Videos and materials: code.org also provides videos and classroom posters that feature people who work in computer science as well as familiar famous faces encouraging students to consider computer science careers. Many of these materials align with culturally responsive teaching principles, such as providing role models that students can relate to and identify with. Aligns with CS 2.13, 3.14, 4.15, and 5.14.

code.org career inspiration videos

code.org career inspiration posters

Computer Science in the Commonwealth

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 Principles, Computer Science Foundations, and Computer Science Programming-NonCTE. 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/plans.

Engaging All Learners
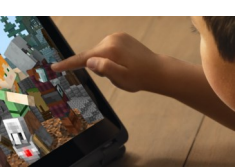
Career exploration and preparation is often featured at the secondary level, but it is never too early to spark interest in career pathways. Because we know that females and people of color are underrepresented in career pathways in STEM (including computer science), it is important to incorporate activities at the elementary level to engage these students in career-themed investigations and activities that promote 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. Microsoft offers a suite of free virtual workshops for students and families that provide these hands-on experiences through a variety of settings, including coding workshops, museum tours, and virtual travel. They also have launched a new series just in time for Black History Month that features groundbreakers, inventors, and changemakers of color. **Click here** to explore Microsoft's options and learn more about how you can incorporate these workshops into your classroom.

Old Dominion University

The Center for Educational Partnerships

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