ARCS NEWS

Advancing Rural Computer Science

Announcements

Greetings, and Happy New Year!

We hope you and your students had a relaxing winter break. Virginia has seen some wild winter weather recently, and we hope you are safe and well.

Thanks to those of you who responded to our computer science classroom resources survey. We are working on our next steps and will be in touch with everyone about resource options soon.

This month, our theme is gaming. What is your favorite game to play with a computing device? How have games changed since you first played? What games do your students play? Scroll down for some interesting facts about gaming as well as some game related resources that align with the SOLs.

As ever, please feel free to reach out to us via **TCEP@odu.edu.**

Concept Corner

Recent developments and innovations in computer science don't only impact our lives by solving large problems, making tasks faster, and getting us more connected – they also bring new forms of entertainment. One form of this entertainment that has made one of the largest societal and cultural impacts is gaming. The gaming industry was valued at over $178 billion globally in 2021, with 2.9 billion gamers, which accounts for 2 in 5 people in the world! Whether played on a personal computer (PC) or a PlayStation, Xbox, or Nintendo console, video games have become a thrilling and immersive pastime for many of us.

These games apply multiple concepts in computer science. Every shape, movement, and sound effect is programmed using computer code. Concepts in geometry and mathematics facilitate quality of the appearance of 3-D objects and their movement. The program in the game responds to decisions made by players and can take the game down different paths. In many cases, players face opponents that are controlled by the computer (reasonably called a "computer" opponent). This computer player makes its next move by collecting data on the human p…

Pedagogy Pointers

Free Platform: gamefroot offers a free version of its game-designing platform that allows students to use basic coding skills to design games that students can play. International curriculum guides for teachers are freely available and can be adapted to Virginia standards. The content may be challenging for K-1 students. SOLs: Aligns with CS 2.1-3, 3.1-3, 4.1-3, and 5.1-3.

Gamefroot main site

Gamefroot educator resources

Video: MIT explains provides a student-friendly video lesson to help students understand how games connect to coding languages like Python and Scratch. Parallels to language arts are drawn throughout the lesson to help students understand how coding is a language. Aligns with CS K.1-3, 1.1-3, 2.1-3, 3.1-3, 4.1-3, and 5.1-3.

MIT explains how games are made

Computer Science in the Commonwealth

CodeVA's state-wide CS In Your Neighborhoo   de CS In YA

Engaging All Learners

Click here to visit the WIDA site to learn more about creating an inclusive elementary classroom, whether you are teaching in a face-to-face or virtual/hybrid environment.

Old Dominion University

The Center for Educational Partnerships

Have a question or feedback for us? Email TCEP@odu.edu

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