

Reach Across the Stars

Meet your STEM heroes virtually! Use Augmented reality (AR) to 'Reach Across the Stars' and learn about women who have blazed trails in space and STEM.

TEKS:

6.11 C: The student is expected to describe the history and future of space exploration, including the types of equipment and transportation needed for space travel.

TECH 6-8.1 C: The student is expected to explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results.

TECH 6-8.4 F: The student is expected to transfer current knowledge to the learning of newly encountered technologies.

Materials:

• Smartphone or tablet with internet access

How To:

- 1. Download an app called "Reach Across the Stars" on your smartphone or tablet.
- 2. Open the app! It may take a few minutes for the app to load all of the information it needs for the augmented reality (AR) experience.
- 3. Turn your tablet or smartphone around to explore the constellations: do you see any scientists in the stars?
- 4. Click through the different constellations to learn all about these inspiring women!
- 5. Next, click the "AR EXPLORE" button at the bottom of the page. This allows you to chat with scientists, watch videos about their lives, or even travel with them on different AR tours!

STEM Explanation:

Augmented reality (AR) is an interaction between computer-generated graphics and reality. It allows us to see a real-life environment right in front of us and then places a digital component over it. AR makes life easier for humans, from exploring the inside of the human body to having fun playing video games. Have you ever



heard of the popular AR app called "Pokémon Go?" Pokémon Go encourages people to get outdoors and make connections with their communities! The "Reach Across the Stars" app uses AR to illustrate different women's passions for space and contributions to science. You can learn all about their contributions to science, ask them questions, and even take AR tours around their lives at work! Can you find out at least three of the women's birthdays? How about taking a tour of an X-ray Observatory? Explore the universe and use AR technology to put yourself into the stars!

Career Connection:

App designers create programs for smartphones, tablets and computers. They work across multiple platforms, including Apple iOS and macOS, Google Android, and Windows. An app designer may create games, weather apps, social networking tools, maps and navigation programs, and much more.

Resources:

https://chandra.si.edu/women/ar/ https://academickids.com/encyclopedia/index.php/Augmented_reality