

“Virtual reality is the first step in a grand adventure into the landscape of imagination”

-Frank Biocca

STEM in the News

Recently the company oculus has released a cheaper and better stand alone headset. Before the oculus quest 2, oculus 1 was the best overall headset in 2020. The quest 2 has more features than its previous model like, a new modern design, better software, and internals. The oculus quest 2 is also compatible with running a 90 hertz refresh rate rather than the 72 hertz display on the quest 1. Overall the oculus quest 2 is the best bang for your buck.

STEM Career Spotlight

Virtual reality is a big gaming business with openings for game designers, producers, programmers, artists, not to mention business, sales, and marketing roles. Virtual reality is racking up estimated revenues of \$36 billion in the U.S. Virtual Assistant salaries in the USA range from \$7.25 to \$38.40, averaging at \$16.15 per hour. The average annual pay for a Work From Home Virtual Assistant Job in the US is \$67,115 an hour! How cool is that!

STEM in History

Modern virtual reality ideas are built upon those from the 1800s, almost to the start of practical photography. In 1838, the first stereoscope was invented, using twin mirrors to project a single image. This led to the development of the View-Master which is still produced today. The first use of the term “virtual reality” was in the mid-1980s when Jaron Lainer, the creator of VPL Research, began to invent gear, including goggles and gloves, in order to experience “virtual reality.” However, before that technologists were developing simulated settings. One major milestone in VR was Morton Heigg’s multisensory simulation which allows you to feel like you’re driving a motorcycle. Current VR technology has evolved thanks to the pioneering abilities of inventors in the past six decades.

STEM Across the Curriculum

Disciplines- Technology, Science

Activity- How does VR work? Try to figure the main variables on how the illusion is created to make it seem that you are in a virtual oasis. Research the ways that engineers created and designed this illusion and how it seems to work.

STEM Movies

Ready Player One, is taking place in 2045. Every single person plays the virtual reality game called the Oasis. The inventor of the game passed away and made the biggest treasure hunt in the entire world. If any one of the players found the golden egg, they would have total control of the Oasis. Wade Watts and his friends try to find the egg, but the company IOI out numbers them 1000 to 1. Wade and his friends do eventually find the egg and make people live in the real world. This movie really makes your blood pump and it can teach you mainly about VR.

“Photography is a kind of virtual reality, and it helps if you can create the illusion of being in an interesting world.”

-Steven Pinker

#STEM@ADM Spotlight

In 2019-2020 students that were first arriving at Alice Drive Middle School would experience a small glimpse of STEM activities. One of the main activities was a section of VR. Students would get to participate in a VR activity that allowed you to see how a shark moved, and how the design of the shark allowed fast movement. VR would be amazing to have at all schools so that students could see the fundamentals of a VR headset.



Famous STEM Person

Oculus is a brand of Facebook Technologies, LLC. In July of 2012, Palmer Luckey, Brendan Iribe, Michael Antonov, and Nate Mitchell founded Oculus VR in Irvine, California. Now Oculus is known for making and selling some of the best VR headsets you can buy. These headsets include the Oculus Rift and The entire Oculus Quest line. Today Oculus is one of the best brands to buy VR headsets from and who knows what they will bring in the future.

STEM Challenge

Do you want to make a homemade vr headset?

Let's make one out of cheap materials!

Materials: Cardboard, Scissors, Gum, Scale, 1 pair of biconvex lenses.

Lenses that you need to buy:

https://www.amazon.com/Biconvex-Pop-Tech-Bi-convex-Diameter-Cardboard/dp/B012HYF4A2/ref=sr_1_1?rid=2FH8EID5B91MP&?dchild=1&?keywords=biconvex+lenses&qid=1610635912&?prefix=biconvex+lens%2Caps%2C153&sr=8-1

Video on how to build and assemble the VR

headset: <https://www.youtube.com/watch?v=8qNmRi-gNqE>

Creating this headset will allow you to experience what VR is actually like while also spending a smaller amount of money.

STEM Fact

The first VR headset was patented in the 1960's, and was named the “Telesphere Mask” by inventor Morgan Heilig.