

Experience VR

How To Get Started,
See For Yourself, and
Bring a WLS VR Kit to Your
Programming

Today We'll Find Out

- What ARE VR, AR, and R? ;-P
- Why have VR in the library?
- How to build a viewer
- How to find good VR apps
- How to install an app
- View and share feedback
- How do I borrow a WLS VR kit?
 - What's in it?
 - How do I use it for programming?
 - How do I borrow it?

WARNING

Most VR headsets - including those we build and use today - include magnets that may affect pacemakers

Tips

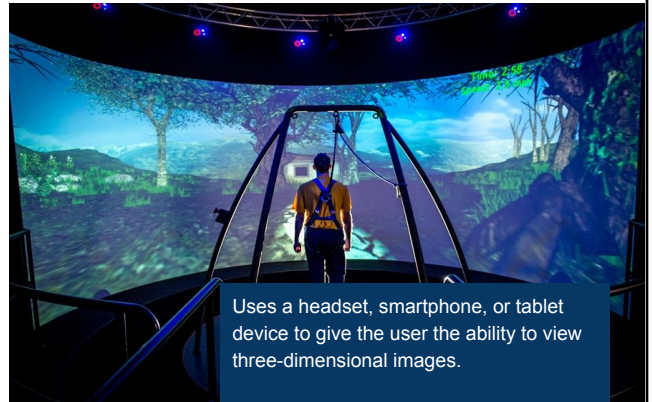
- Take frequent breaks
- Cardboard is not for use by children without adult supervision
- Do not use Cardboard while driving, walking, or otherwise by being distracted from real world situations
- If you have had or could be prone to seizures, consult a doctor before using Cardboard

[Google Cardboard Product Safety](#)

What ARE VR, AR, and R? ;-P

Virtual Reality

- takes place within a completely simulated environment that incorporates sensory feedback, mainly auditory and visual
- can be similar to the real world or it can be fantastical, creating an experience that is not possible in ordinary physical reality
- completely replaces the user's real world environment with a simulation
- Computer-generated or 360° video



Uses a headset, smartphone, or tablet device to give the user the ability to view three-dimensional images.

Devices must have a processor, display, sensors and input devices, including a camera and sensors such as accelerometer, GPS, and solid state compass

What is AR?

Augmented Reality

- interactive experience of the real world
- objects are "augmented" by computer-generated perceptual information
 - Auditory
 - Haptic (perception of an object by a moving subject)
 - Somatosensory (sense of touch, position, and movement)
 - Olfactory
- can add to or mask the natural environment
- layers virtual information over a live camera feed
- alters one's ongoing perception of a real world environment



Other Realities ;-P

Mixed Reality

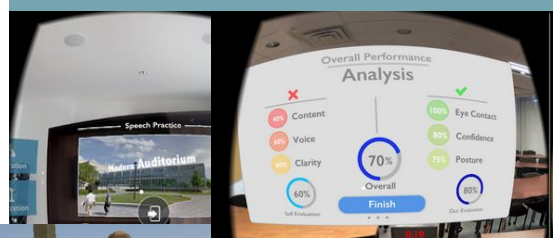
- physical and digital objects co-exist and interact in real time
- picture surgeons overlaying virtual ultrasound images on their patient while performing an operation



Why VR in the library?

Introduce patrons to technology that education, industry, and entertainment are beginning to employ for vibrant, engaging experiences

Practice public speaking



How Does the Viewer Work?

- Phone
 - Gyroscope, accelerometer and a magnetometer
 - VR apps, VR videos, or 360 video
- Lenses
 - Allow you to focus on the screen when it's so close to your eyes
 - Works best with glasses off
- Magnet
 - Slides up and down to create a button for your phone
 - Acts as a compass or a click in some games



[Google Cardboard: How It Works! video](#)

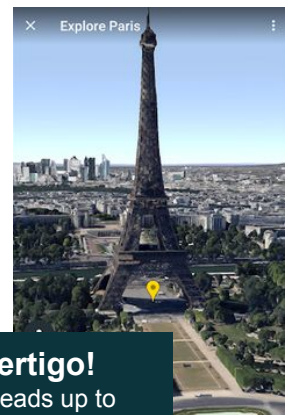
Let's install an app

Connect to wifi. Go to the Google Play store or iOS App store. Start with:

- [Google Cardboard](#) has a tutorial and demos.
- **Beyond VR** is a public speaking app with simple controls. Look at controls to activate them.
- In **Google Earth**, search for your location or take a tour of a famous landmark or location.
- **Walk the Plank VR** requires walking and responds to movement.

Search YouTube for 360 Video or VR video

- **National Geographic**
- **Gorillas in the Congo**



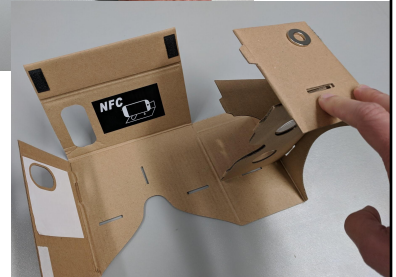
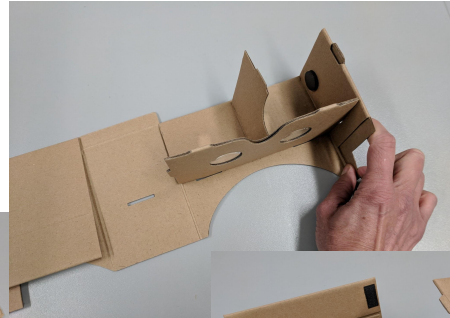
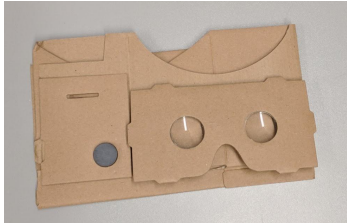
Beware of vertigo!

Give patrons a heads up to

- start simply and slowly
- first try an app that allows them to be seated

iOS users can search for VR apps on the App Store

Let's Build a Viewer



Tips

- Unfold lens panel and center support panel first
- Start assembly at the right-hand side
- Then "roll" viewer into cube shape

What if I want to buy?
[Get Cardboard](#)

Viewer Building Tips

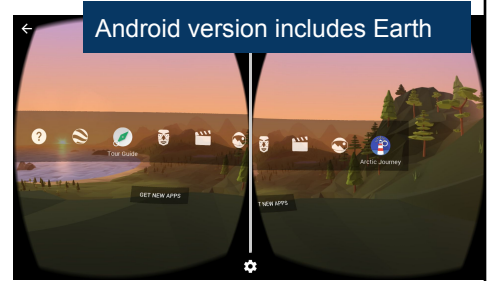
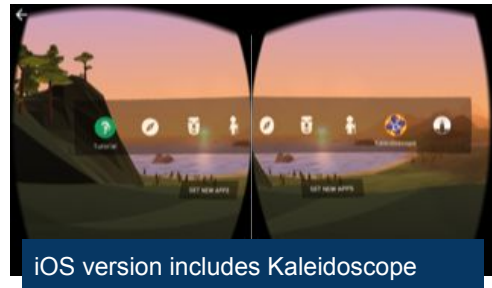
- Don't fold the camera flap to more than a right angle
- Align **front left corner** to "square up" the viewer before running tape around the body
- Ask a buddy to hold while you tape



[A 2014 TechCrunch article called Google Cardboard "Mockulus Thrift"](#) and shows assembly in action

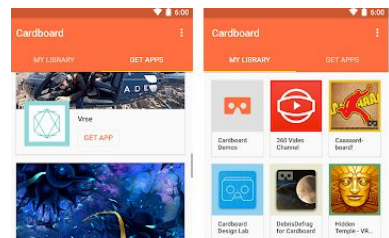
Let's Use the Viewer

- Open the Google Cardboard app
- Tap Launch Cardboard Demos and follow on-screen instructions
- Insert your phone into the viewer
- To control the app
 - Move your head, look around the environment
 - When you look at a screen option, a circle will appear.
 - To make choices and switch screens, slide the magnet/button down and release
 - To exit a demo app, tilt the viewer to the side & pause
- When ready, get a partner and try the Google Earth demo - with your partner as your guide, stand up, move around, and explore



How do I find more VR apps?

- [Google Daydream](#)
- [Google Expeditions](#)
- [NYT VR app](#)
- [Google Arts and Culture VR App](#)
- [International Space Station Live](#)
- WITHIN VR
- [20 Top Virtual Reality Apps that are Changing Education](#)
 - [Quizlet Flashcard VR](#)
- Search your app store for VR.
Look for apps with 4 star+ rating



Tips & Troubleshooting

- Use maximum brightness for best viewing
- Avoid your power/sleep button so you don't interrupt the app
- Phone size may affect viewing
- You may need to remove your phone case
- Google Cardboard requires
 - Android 4.1 or higher
 - iOS 8.0 or higher
- Adjust the QR code to match your viewer to Cardboard
 - <https://vr.google.com/cardboard/viewerprofilegenerator/>
 - https://youtu.be/WpULh_nGrk



WLS VR Kits

- What's in it?
 - 11 cardboard viewers in 2 sizes, including 1 for the program leader
 - A printed version of the presentation with step-by-steps for building viewers and installing apps
 - Participants must bring their own phones
- How do I use it for programming?
 -
- How do I borrow it?
 - Go to [WLS LEADER Lab Kit Information on the IT Wiki](https://it.westchesterlibraries.org/services-2/westchester-library-system-leader-lab/wls-leader-lab-kits/) at <https://it.westchesterlibraries.org/services-2/westchester-library-system-leader-lab/wls-leader-lab-kits/>

Calendar of Existing Reservations

A screenshot of a web-based calendar interface. The calendar is for July 2018. It shows several reservations for 'WLS LEADER Lab Kits' in green bars across the days of the month. A modal window titled 'LEADER Lab Kit Request' is open in the foreground, containing text about borrowing the kit and a form to select a library. The modal text includes: 'Borrow a WLS LEADER Lab kit to build or enhance library programs. Kits include a variety of parts and program plans to help you implement programs. Learn about kits and get hands-on experience at a LEADER Lab workshop, scheduled on the WLS evanced calendar. Kits have a 2-week loan period. Please choose a date that includes planning time prior to your program. When you place your request, you will be contacted to arrange dates of delivery and details.' There is a red asterisk indicating a required field for 'Library *' with a dropdown menu.

Links and Next Steps



[Cardboard Camera App](#)

[Google Tour Creator](#)

Create your own VR tour

- [Google Blog Post](#)
- [TechCrunch Article](#)

[Google Poly World of 3D](#)

Share in Google Poly

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