An Introduction to a feature attraction at the Washington State Fair

Join Newspapers In Education and the Washington State Fair as we take a close look at the animals, people and exhibits of the Washington State Fair. Together, We Are Washington.

You've already met some of the people and animals at the Washington State Fair. Now, let's take an inside peek at what is sure to be one of this year's most popular exhibits: Vision Dome.

What is the Vision Dome?

Vision Dome is a fully immersive, 360-degree projection that will transport you to the most breathtaking locations in the universe! The Vision Dome tours the Wonders of the World in a journey through some of the most awe-inspiring achievements ever conceived by man: the Pyramids of Giza, Machu Picchu, New York City, the Apollo 11 moon landing, the Arecibo Observatory and the International Space Station, to name a few.

How does Vision Dome take you to all of these places at the Washington State Fair? The “Wonders of the World 360º” show uses a mix of 360-degree animation and 360-degree photography to create the first ever 360-degree high-definition (HD) virtual reality world travel experience. The presentation incorporates 360-degree motion capture techniques so that everywhere you look, you will see images around you. You may have used a similar technology if you’ve ever used Google Street View to look up a location. This difference is, instead of zooming in on one location, you’ll have a 360-degree panorama; videos of the most amazing sights on the planet displayed on a massive screen nearly 200 feet in circumference. The largest Vision Domes (which you can see at the Fair) is 70 feet in diameter and is a fully immersive, all-encompassing audio visual experience.

Technology inside the Vision Dome

The Vision Dome comes in diameters of 20, 41 and 70 feet. The Washington State Fair is fortunate to have three domes on display including the largest. Regardless of the diameter of the Vision Dome, the projection technology consists of five high definition projectors. These create five single screens that are then stitched and warped together by Vision Dome software to create one seamless 360-degree display. Imagine a very large quilt that has been sewn together around a sphere. A versatile, single-box media server allows the user to switch between video and interactive content at a touch of a button. This can be done wirelessly with any touch-screen device. That means you can take video content or ordinary photo stills and convert them into a 360-degree format. You can create collages of images and text to tell your story or combine them with animation and sequenced transitions to create vibrant and motion-filled scenes.

Vision Dome technologies are extremely powerful because they incorporate your peripheral vision. Peripheral vision is what is seen on the sides of your environment, outside of the center of your gaze. In a typical movie theater flat screen, you eliminate your peripheral vision by looking straight ahead at the screen. Vision Dome technologies employ your peripheral vision by showing images all around the room, which is more similar to how you experience real life. In what areas of your daily life is peripheral vision especially important? In which careers is peripheral vision especially important? In which careers is peripheral vision especially important?

FASCINATING FACTS OF THE 70-FOOT VISION DOME

- Footprint is 68 feet, 10 inches
- Height is 31 feet, two inches
- The screen is 9600 pixels wide, about five times the resolution of an HD TV
- A custom-built vacuum-pressurized screen inflates right up against the geodesic frame, creating a perfectly smooth surface
- Can accommodate an audience of 900 people (standing) or 400 people (sitting)
- It takes a crew of six people 20 hours to build the Vision Dome, and eight hours to tear it down
- 3 x 32 amp power supply
- 12-ton ballast for hard standing
- 7-ton truck plus trailer vehicle access needed

What stories are best told in video versus singular photographs? Why? What about animation? If you had the opportunity to use Vision Dome technology for a class project, what would you create?