

EXPAND YOUR CLASSROOM

with virtual reality

Transform your classroom with immersive virtual reality experiences that engage students, spark curiosity about future careers, and explore academic subjects.



Bring the future to your students
ybi.org/explorevr

Explore, Create, and Inspire with VR in Your Classroom

Explore VR is designed to revolutionize teaching by bringing immersive virtual reality experiences directly to your students. With our program, you can expand learning beyond textbooks and traditional methods, giving students exposure to subjects like space exploration, history, and careers in fields such as engineering, healthcare, additive manufacturing, and technology.

Bring learning to life and give your students an unforgettable, hands-on educational experience.

How it works:

COST

Pricing averages \$10 per student, per VR experience. Costs vary depending on programming needs

CHOOSE AN EXPERIENCE

Each VR experience can enhance your lesson plan and can be tailored to your classroom's grade level and subject focus

SCHEDULE A TIME

Use our Calendly link to book a date and time that works best for your class

WE BRING EVERYTHING

We bring everything required for an amazing experience.

26

(the maximum group size per session)

How to Use This Guide

YBI's Explore VR Focus

The YBI's Explore VR Program's core mission is to prepare students for the future workforce by introducing them to opportunities in additive manufacturing and STEM career pathways. Through engaging VR experiences, students explore advanced manufacturing environments, cutting-edge technologies, and in-demand careers, helping them build awareness, spark curiosity, and develop critical thinking and problem-solving skills. By virtually stepping into modern workplaces, students gain a deeper understanding of the skills and possibilities that await them in today's rapidly evolving, technology-driven world.

We not only have VR experiences featuring national organizations, **but also showcase local advanced and additive manufacturing companies with opportunities located right here in the Valley!**

- Our STEM and additive manufacturing unit includes a short Power Point presentation to ensure students understand the difference between subtractive, or traditional manufacturing and additive and advanced manufacturing.
- A pre and post survey to ensure our lesson was fully understood.
- VR 360 videos that feature both national content and local advanced manufacturing companies, highlighting career opportunities right here in the Valley.

Our program works to support educators who want to prepare students for real-world careers through immersive, technology-driven learning. Our programs use virtual reality to introduce students to high-demand industries like advanced manufacturing, engineering, healthcare, STEM related fields, and the skilled trades.

Through engaging VR experiences, students can explore real workplaces, and better understand career pathways—making learning more meaningful and memorable.

Join us to inspire career exploration and hands-on STEM learning through the power of virtual reality.

Build Your Own Curriculum

Are you teaching about animal intelligence in biology? Reading *The Diary of Anne Frank* in language arts? Learning about the civil rights movement in social studies? You can use any of the VR experiences in this guide to supplement a unit you're already teaching and make it ultra engaging!

Here are a few ideas:

- Help students connect classroom learning to real-world applications and careers
- Use a video as an engaging hook at the beginning of a unit.
- Take a "virtual field trip" to build background knowledge on a culture, place, people, historical event, or scientific concept you are studying.
- Build background knowledge before diving into complex topics
- Make what you're learning relevant to the real world by inviting students to connect what they're studying in class to a VR video.
- Customize or create your own lesson plans using our library of 360° content

You can draw on the themes and VR experiences in this guide to create your own lesson plans or units, or **check out a multitude of 360 videos available to enhance your lesson plans by looking through these amazing sites (click on green titles below).** Contact us if you want to discuss.

[Discovery Channel 360](#)

[NASA 360](#)

[National Geographic 360](#)

[New York Times 360](#)

[PBS 360](#)

Table of Contents

5-6 Local Career Exploration VR Experiences

Novelis Advanced Manufacturing
#1 Cochran EV Automotive Retailer
Humtown Products
Ohio Dept. of Natural Resources (local)

Ultium Cells
Juggerbot 3D
Hynes Industries
Aqua Ohio

7-9 Career Exploration VR Experiences

Materials Engineer, Aerospace Engineer
Google Innovation Lab
Intel Semiconductor Processor Engineer
Adidas Innovation Lab
Lockheed Martin Center for Innovation
Specialized Bicycles: Designers and Engineers
Modern Meadows: Chief Technology Office

Paramedic
Day in the Life: Vet Tech
Gatorade Sports Science Lab
Mobile Vision Clinic
Welding in VR

10 History VR Experiences

Anne Frank House VR
MLK: Now is the Time

Don't Forget Me
A Promise Kept

11 National Geographic VR Adventures

Journey into the Deep Sea
Grandpa's Reef
Canada's Wild Rivers
Sea Turtles Nesting in Costa Rica

Expedition Everest
Deep Sea Exploration
Indonesia's Coral Reef

12 NASA VR Experiences

The first 360VR of Mars by NASA's Perseverance Rover
NASA Simulation Flight Around a Black Hole
VR Spacewalk Experience

13 Immersive VR Experiences

Mission: ISS

Lobaki Immersive Institute

14 Contact Information

Local Career Exploration VR Adventures

Novelis Advanced Manufacturing



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Viewers can tour the Warren, Ohio location for Novelis, a global leader in flat rolled aluminum products. Explore their local operations and future career opportunities without leaving your chair. Hear directly from current skilled tradesmen and learn about the job market, training needed, and skillsets that align with this industry.

Ultium Cells



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Take a virtual tour of Ultium Cells, where the future of electric vehicle battery production is being built. Located in Lordstown, Ohio, this state-of-the-art facility is at the forefront of the EV revolution. Meet the people driving innovation, explore the advanced technology behind battery cell manufacturing, and learn about the in-demand skills in this fast-growing industry.

Juggerbot 3D

One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive



Experience 3D printing like never before with this immersive 360° VR tour JuggerBot 3D Printing. Established in Youngstown, Ohio in 2014, they are pushing the boundaries of additive manufacturing with large-scale, industrial 3D printing solutions. Step inside their cutting-edge facility and explore the future of advanced manufacturing.

Humtown Products



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Step inside Humtown Products and explore one of the leading advanced manufacturing facilities in the region. Humtown specializes in cutting-edge 3D printed sand cores and molds for the foundry industry. Hear directly from employees on the shop floor, and learn about the career paths that power this high-tech environment.

Hynes Industries



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Visit Hynes Industries in Austintown, Ohio as they provide highly engineered custom fabrication and roll form solutions. Students will explore a variety of manufacturing careers both on and off the production floor, learning about the skills and education required for these local opportunities.

Local Career Exploration VR Adventures

Ohio Department of Natural Resources



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Step inside the world of environmental careers with the Ohio Department of Natural Resources (ODNR). In this immersive 360° virtual field trip, students meet real professionals working to protect Ohio's wildlife, waterways, and natural habitats. Explore the careers of an Aquatic Habitat Biologist, Wildlife Communications Specialist, and Wildlife Officer as they share what they do, the tools they use, and how their work impacts communities across the state. Through hands-on field experiences and inspiring career stories, students discover how science, conservation, education, and leadership come together to create rewarding green careers that help protect our environment for future generations.

#1 Cochran EV Automotive Retailer



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Students get an inside look at #1 Cochran, a leading EV automotive retailer, to learn about the wide range of careers available in the automotive industry. From vehicle maintenance and repair to sales, customer service, and management, students will hear directly from professionals about their roles and what it's like to work in a modern automotive environment.

Aqua Ohio



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Go behind the scenes at Aqua Ohio and discover the people, technology, and science that help deliver clean, safe drinking water to communities across the Mahoning Valley. In this immersive 360° virtual field trip, students explore how water is monitored, treated, and delivered every day by professionals working in environmental science, water treatment, and operations management. Meet real Aqua Ohio employees as they share their career journeys, explain the technology they use, and demonstrate how their work protects public health, supports local businesses, and preserves the environment. Students will gain a deeper understanding of the critical role water plays in everyday life while exploring rewarding green careers that combine science, technology, problem-solving, and environmental stewardship.

Better Business Bureau



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Experience an engaging sales pitch situation created by actual students to learn about entrepreneurship, soft skills, and consumer behavior. In this Better Business Bureau produced video, students gain a stronger insight into the world of sales and local business practices.

Career Exploration VR Adventures

Welding in VR

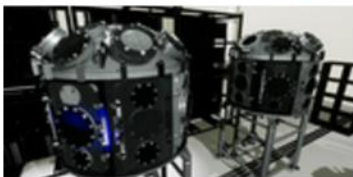


One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

As a fabricator-welder, you will work either in a shop or out in the field, crafting quality metal components in all shapes and sizes. Improving your skills will translate to advancing your career and your earning potential. There are multiple fields that you can specialize in: MIG, TIG, and Stick welding, as well as specialty cutting, soldering, and brazing.

Materials Engineer



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Inspect and maintain industrial cranes at ArcelorMittal Dofasco with Jesse Castelli. Discover a vast collection of career profiles, videos and lesson plans from Let's Talk Science that connect STEM education to the current and future job market.

Mobile Vision Clinic



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

By 2049, it's estimated half of the world will be myopic and children are the most at risk. An ophthalmology-on-wheels organization is out to curb that growth one school at a time. Traveling to low-income communities, Vision to Learn provides free eye exams and glasses giving children in need their right to see, learn and succeed.

Aerospace Engineer



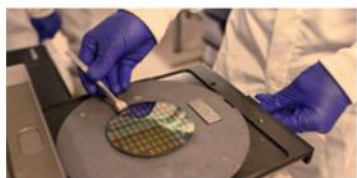
One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

In the virtual reality series "The Female Planet," watch the story of Tiera Fletcher, a Boeing aerospace engineer working with NASA to design the rocket to launch humankind to the moon and on to Mars. Get a 360-degree look into Tiera's career, her groundbreaking work, and how she's leading the "Mars generation."

Career Exploration VR Adventures

Semiconductor Process Engineer



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Experience a virtual tour inside one of Intel's massive manufacturing facilities where the company makes semiconductors that power today's digital world. You will be able to look around the clean rooms, view many of the specialized multimillion-dollar tools required to make chips, and even take a virtual ride on one of the automated superhighways that transport silicon wafers throughout the facility.

Adidas Innovation Lab

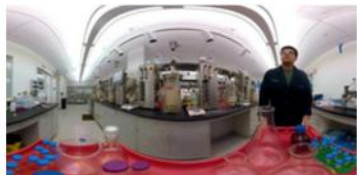


One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Through this experience, viewers can visit Future Lab, which Adidas built to stay ahead of the innovation curb. Travel with Fast Company behind the scenes at some of the world's most cutting edge innovation labs, using VR to showcase the places where the magic happens and the teams behind the innovation.

Modern Meadow: Chief Technology Officer



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Visit bio-fabrication company, Modern Meadow, which, through technical finesse, has developed an alternative to leather. Watch with fascination as the company grows collagen cells to make a new material—one that looks, feels, and acts like leather, yet is much more eco-friendly.

Day in the Life: Vet Tech



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Students learn to perform patient examinations, collect vital signs, administer medications as prescribed by a veterinarian. They will also explore anesthesia, animal nursing, surgical assistance, diagnostic laboratories, and electrocardiograms. This experience also includes computer applications, recognizing behavioral signs of small animals, and educating and counseling clients in the area of pet nutrition.

Gatorade Sports Science Lab



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Explore the Gatorade Sports Science Institute in Florida, where students will get a behind-the-scenes look at how Gatorade uses real-time data analysis, product testing, and wearable tech to develop new sports science solutions. This tour highlights how careers in STEM, data science, and sports innovation are shaping the future of athletic performance.

Career Exploration VR Adventures

Lockheed Martin Center for Innovation



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Visit the Lockheed Martin Center for Innovation in Virginia, where innovators integrate big ideas for the military, space and navy to create real-life scenarios for large-scale defense technology. Gain an inside glimpse at how companies are using science and technology to transform their business through this virtual reality tour.

Specialized Bicycles: Designers and Engineers



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Tour Specialized Bicycles' Silicon Valley-based innovation lab, a hub where the bike designers and engineers dream up tomorrow's human-powered vehicles. If you think designing and building a bike is easy, this tour will set you straight with an inside glimpse at how companies are using science and technology to transform their business.

Paramedic



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Ambulance VR is a six-minute 360 documentary, which immerses you in the world of the paramedics of the West Midlands Ambulance Service. Travel at high speed in the front seat of an ambulance and join the paramedics in people's homes as they respond to emergency calls.

Google Innovation Lab



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Ever wonder how Google moonshot ideas are born? Enter the Google Garage, a collaborative, maker space, to take part in a Creative Skills for Innovation Lab. Join a team of Googlers for an immersive lab that helps tackle audacious challenges, unleash creativity and prototype innovations fast.

History-Based VR Adventures

Anne Frank House VR



One Class Period Per Lesson In
School, Afterschool, Summer

360 Interactive

In WWII, Anne Frank and her family went into hiding for over two years in Amsterdam's "Secret Annex" with 4 others to escape the Nazis. The Anne Frank House VR lets you experience their story in an emotional and unique way, exploring the recreated rooms of the Annex and immersing yourself in Anne's thoughts. Discover what happened to the group of 8 Jewish people and their bravery in hiding from the constant threat of discovery.

MLK: Now is the Time



One Class Period Per Lesson In
School, Afterschool, Summer

360 Interactive

"MLK: Now is the Time" is an immersive journey that explores key themes of Dr. King's speech and highlights systemic inequities that persist in our society. Through first-person stories and interactions, "MLK: Now is the Time" drops you into a thoroughly modern interpretation of a contemporary March on Washington that will inform and inspire a new generation of activists.

Don't Forget Me



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

The film commemorates the experience of survivor George Brent at the Auschwitz, Mauthausen, and Ebensee concentration camps. It takes viewers to train stations, concentration camps, and other sites involved in the horrors experienced by the two survivors and others imprisoned by the Nazi regime.

A Promise Kept



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

The experience tells the story of the late Frieda "Fritzie" Fritzshall, who was imprisoned and enslaved at Auschwitz as a teenager, and went on to serve as president of the Illinois Holocaust Museum and Education Center until her death last year at age 91. The title comes from Fritzshall's promise to older imprisoned women that if she survived, she would tell their stories.

National Geographic VR Adventures

Journey Into the Deep Sea



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Set out on a virtual dive on the coral reefs of Palau with marine biologist and National Geographic Explorer Dr. Erika Woolsey as your guide. Swim with manta rays, sea turtles, and sharks while you explore beautiful and threatened coral ecosystems.

Deep Sea Exploration

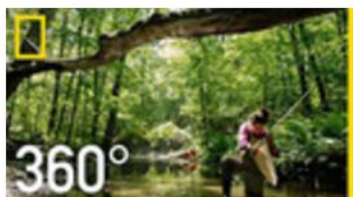


One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Dive into the midwaters off the coast of California with bioengineer and National Geographic Explorer Dr. Kakani Katija. She conducts deep water research at Monterey Bay Aquarium Research Institute, developing technologies that can go deep below the surface to observe wildlife and collect data and specimens.

Canada's Wild Rivers



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Canoe through the sprawling Canadian wilderness with freshwater ecologist and National Geographic Explorer Dalal Hanna. She researches Quebec's extensive freshwater systems, collecting samples from streams, rivers and lakes to assess ecosystem health, with the aim of protecting these precious resources.

Sea Turtles Nesting in Costa Rica



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Expedition Everest



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Embark on this experience with an international coalition of biologists, geologists, glaciologists, meteorologists, and geographers as they study the effects of climate change in one of the most extreme environments on Earth. The National Geographic and Rolex Perpetual Planet Everest Expedition begins at 17,300 feet and ends above 27,000 feet, near the summit of Mt. Everest.

Grandpa's Reef



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Travel to the Philippines, where a young girl takes up her grandfather's lifelong pursuit of protecting an endangered coral reef. Inspired by true stories, this virtual reality experience will take you diving on some of the world's most beautiful reefs.

Indonesia's Coral Reef



One Class Period Per Lesson In
School, Afterschool, Summer

360 - Not Interactive

Dive into the crystal clear waters of Indonesia with marine social ecologist Shannon Switzer Swanson as she works with local communities, documenting fishing practices. She is hoping to learn why some fishing families have developed sustainable practices while others have not.

Several times a year, thousands of sea turtles make their way to this beach in Ostional Wildlife Refuge to lay their eggs. Egg harvesting has been legalized in this area to generate income for the community and encourage conservation. Observe this mass-nesting, known as arribada in 360 video, and learn more about the egg harvesting.

NASA VR Experiences

The first 360VR of Mars by NASA's Perseverance Rover



One Class Period Per Lesson In School, Afterschool, Summer

360 - Not Interactive

"From the explosive opening of the parachute to the landing rockets' plume sending dust and debris flying at touchdown, it's absolutely awe-inspiring." A key objective of Perseverance's mission on Mars is astrobiology, including the search for signs of ancient microbial life. The rover will characterize the planet's geology and past climate, pave the way for human exploration of the Red Planet, and be the first mission to collect and cache Martian rock and regolith.

NASA Simulation Flight Around a Black Hole



One Class Period Per Lesson In School, Afterschool, Summer

360 - Not Interactive

This immersive visualization produced on a NASA supercomputer represents a scenario where a camera — a stand-in for a daring astronaut — just misses the event horizon and slingshots back out. This version is a 360-degree video that lets viewers look all around during the trip. Goddard scientists created the visualizations on the Discover supercomputer at the NASA Center for Climate Simulation.

The destination is a supermassive black hole with 4.3 million times the mass of our Sun, equivalent to the monster located at the center of our Milky Way galaxy. To simplify the complex calculations, the black hole is not rotating. A flat, swirling cloud of hot, glowing gas called an accretion disk surrounds the black hole and serves as a visual reference during the fall. So do glowing structures called photon rings, which form closer to the black hole from light that has orbited it one or more times. A backdrop of the starry sky as seen from Earth completes the scene.

VR Spacewalk Experience



One Class Period Per Lesson In School, Afterschool, Summer

360 - Not Interactive

Throw yourself into the void 250 miles above Earth in this award-winning VR spacewalk inspired by NASA's training program and the astonishing experiences of its astronauts. Home puts you at the center of the story, taking you on an emotional and personal journey while delivering beautiful, heart-stopping, and memorable moments.

Immersive VR Adventures

Mission ISS

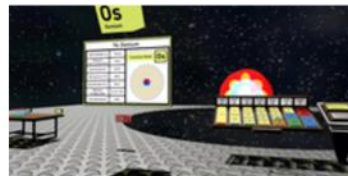


One Class Period Per Lesson In
School, Afterschool, Summer

Interactive

Take a trip into orbit and experience life on board the International Space Station! In this Emmy-nominated simulation, learn how to move and work in zero-gravity using your controllers. Dock a space capsule, take a spacewalk, and let real NASA astronauts guide you on the ISS through informative videos and images.

Lobaki Immersive Institute



One Class Period Per Lesson In
School, Afterschool, Summer

Interactive

Through this immersive, educational experience, students can teleport to different levels and rooms of the Lobaki Institute, exploring engagements centered around various subjects such as mathematics, construction, history, astronomy, anatomy, and more.



READY TO BRING VR INTO YOUR CLASSROOM?

STEPS AT A GLANCE:

- Browse content
- Book your date/time
- We handle the rest

SCAN OR CLICK BELOW TO SCHEDULE



OR CLICK [HERE!](#)