

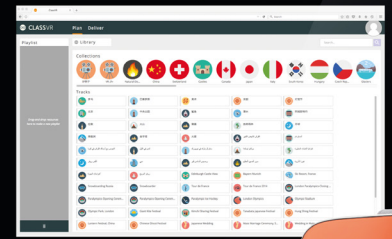
iBlocks™

Project-Based Learning



CLASSVR®

VIRTUAL REALITY FOR SCHOOLS



Class Pet

Students will research different types of class pets and use that information to design their own robotic class pet.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

3D models & Images:

- A range of animals (not necessarily pet specific)

Scenes:

- Countryside ecosystem
- Desert ecosystem

Example ClassVR Content offerings/connection(s)

3D models & Images:

- Rockpool ecosystem
- Mountain ecosystem
- Animal Migration

Scenes:

- Classifying new species [mammals, fish, birds, amphibians, reptiles] as animals



Engineering for Hazardous Weather: Taking Flood Control to New Heights

Students will engineer a lifted house to prepare for severe flooding.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Scenes:

- River Flooding
- Flood Prevention
- Tropical Storm



Exploring Native American Culture

Students will explore how geography influenced the lives of different Native American communities.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Scenes:

- The Indian Wars
- Colonial America
- Early Settlers in the West
- Native American Site



Reimagining Public Transportation

Students will build a model that reimagines mass transportation.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Scenes:

- Travel and Tourism - Ports
- Travel and Tourism - Airports
- Riding a Bus
- Railways



River Management: Assessing Health

Students will engineer a device that samples an environmental parameter that indicates water health.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Scenes:

- Banks of the Mississippi
- Banks of the Amazon
- Banks of the River Danube
- Banks of the Nile
- Parts of a River
- How a River is Formed



Space Systems: Light and Shadows

Students will design a device to track time.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Scene:

- Exploring the Solar System
- Years, seasons, and Days - What is Earth's Orbit
- The Moon
- The Life Cycle of a star
- The Sun - Our Star

Xplodable:

- The Sun
- STEAM3D: Solar and Lunar Eclipse
- Lunar Phases

Images:

- Narrow Neck at Sunset

Videos:

- London Sunrise
- Sunrise over the Alps



Storytelling Through the Ages

Students will create stories and then program a robot to perform/tell their story using both audio and visual elements.

Grade Band: Upper Elementary (3-5)

Example ClassVR Content offerings/connection(s)

Literacy Land

- The Fox and the Crow
- Frog and the Ox
- Jack and the Beanstalk
- Little Red Riding Hood
- Puss in Boots
- Snow White

Scenes:

- Rapunzel
- Clodilocks and the three bears
- The Gingerbread Man
- The Ugly Duckling



Building Literacy: Create a Short Story

Students will develop a short story using their knowledge of literary elements.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Literacy Land:

- Macbeth
- Romeo and Juliet
- The Rime of the Ancient Mariner
- Jack and the Beanstalk
- Rapunzel
- Little Red Riding Hood



Designing a Board Game

Students will create a board game including game mechanics, play pieces, and story.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

3D Model:

- Egyptian Senet Game Set

Scenes:

- Counting in the Clouds
- Desert Ecosystems
- Future Forests
- The Building Blocks of Life



Engineering 3D Printed Instruments

Students will learn about sound and design their own 3D printed instrument.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Special Collection>Playlist:

- Musical Instruments from around the World



Geometric Self-Watering Planter

Students will design and construct a planter.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

3D models:

- Polar Grass
- Kapok Tree
- Prayer Plant
- Rubber Tree

Images:

- Forest Wilshire
- Spring Cherry Blossom
- Spring in Chilterns
- Pinecone
- Maple Tree seed
- Thailand Rainforest

Scenes:

- Seeds: Nature's amazing travellers
- Pollination
- Life Cycle of a Plant
- Photosynthesis
- Structure of a Leaf



Mars Colony: Engineering Expedition

Students will create a Mars colony including solutions for habitat, communication, and transportation.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Scenes:

- Life Onboard the ISS
- Mars Curiosity
- Mars One Base



No Poverty and Zero Hunger

Students will research world hunger and poverty, then use that information to design a planter to produce low-cost, high-yield crops.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Scenes:

- Food Security
- Inside a Food Bank
- Gig Economy
- Rice Fields
- Farming - Fields of England



Robotic Amusement Park

Students will design, build, and test their own amusement park ride.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Scenes:

- Different types of Energy



Space Systems: Create a Model of an Eclipse

Design, print, and test a model of the Earth-Sun-Moon system that can be used to illustrate solar and lunar eclipses.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

3D models:

- Earth and the Moon/planet Earth/Moon

Xplodables:

- The Earth/The Moon/The Sun.

Scene:

- The Moon/Exploring the Solar System

Images:

- Lunar Eclipse/View of the Earth from the moon/Lunar



The Cotton Candy iBlock

Students will learn about the history of candy making and then create and promote their own original confections.

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Playlist:

- Chemistry 3D
- Forms of Carbon
- Structure of an Atom
- Elements

Scenes:

- Structure of DNA/Digestion – breaking things down
- Nutrition and Food
- Chemical Bonding



The Phys. Ed iBlock

How can you design an activity that measures and promotes healthy living?

Grade Band: Middle (6-8)

Example ClassVR Content offerings/connection(s)

Playlist:

- Sporting Events

Scenes:

- (within Avantis World Theme Park)
- Nutrition and Food
- Exercise and the Human body



Building Literacy: Develop a Play

Students will write, cast, and produce an original one-act play and host a performance.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

Literacy Land:

- Macbeth
- Romeo and Juliet
- Hamlet
- A Midsummer Night's Dream
- The Fox and the Crow
- Frog and the Ox

Scenes:

- Jack and the Beanstalk
- Little Red Riding Hood

Trip Through Time:

- Greek Gods and Goddesses



Design Your Own Escape Room

Students will plan, design, and execute their own escape room game.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

SharkLab



Get Your Dream Job

Students will explore and identify how to determine if a career is tailored to one's desired lifestyle, goals, skills, and passions.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

CTE content



Growing a Hydroponic Garden

Students will cultivate a technologically-enhanced botanical space.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

Scenes:

- Farming - Fields of England
- Rice Fields
- Future Forests
- Countryside ecosystem

Video:

- Fighting Climate Change – Vertical Forest



Prosthetics

Students will design and develop a prosthetic device.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

STEAM3D:

- Playlist - Bones, Skeletal System



Robotic Assembly Line

Students will build a robot for an assembly line.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

Scene:

- German Car Industry



Space Systems: Engineer a Telescope

Students will design, print, and test a telescope that can be used to make celestial observations.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

Scene:

- Exploring the Solar System
- Earth and Moon

STEAM3D:

- Solar and Lunar Eclipse
- Lunar Phases

Images:

- Blood Moon Eclipse Mars
- Lunar Eclipse
- Lunar Eclipse as Seen from the Moon

Video:

- Narrated Solar Eclipse



UN Sustainability Goals: Managing Microplastics

Students will learn about microplastics before creating a mitigation device.

Grade Band: High (9-12)

Example ClassVR Content offerings/connection(s)

Scenes:

- Oceans Plastics



Robotic Field Day

Students will code robots to compete in specific athletic games.

Grade Band: Upper Elementary (3-5), Middle (6-8), High (9-12)

Example ClassVR Content offerings/connection(s)

Scene:

- Ancient Olympia: The Greek Olympics
- 360 Video Greek Chariot Race

3D model:

- Ancient Olympia Diorama



Rube Goldberg Machines

Students will engineer their own Rube Goldberg Machine.

Grade Band: Upper Elementary (3-5), Middle (6-8), High (9-12)

Example ClassVR Content offerings/connection(s)

3D models:

- Da Vinci Flying Machine
- Trebuchet
- Steam Engine machine
- Car engine
- Pedal Bike
- Velocipede

Images:

- Golden Gate Bridge
- Legion Bridge Prague
- Inside a Windmill