

# IMVR Experience Overview





WHAT IS A LUMINATION LEARNING LAB?

## Lumination Learning Labs are smart classrooms that use virtual reality and augmented reality technology for immersive learning.

Lumination Learning Labs are custom-built spaces that promote 21st-century learning, empowering students to solve real-world problems using cutting-edge immersive technologies.

Often referred to as XR or extended reality, the most common immersive technologies we use in the lab are:

### Virtual reality (VR)

A three-dimensional experience of simulated environments that is fully digital.

### Augmented reality (AR)

Interaction with the real-world with digital information overlaid.

### Mixed reality (XR)

A blend of physical and digital worlds, allowing real and virtual elements to interact in real-time.

These technologies are enablers, creating impactful experiences that transform the classroom into active learning where students can participate in and experience the content instead of just consuming it.



Find out more about  
Lumination Learning Labs




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# English

**English** fosters critical thinking, creativity, and effective communication through reading, writing, and verbal expression. It helps students extend their learning experiences and make abstract concepts more concrete while enhancing their ability to analyse and empathise with diverse perspectives. Engaging with various texts and media also aids in developing strong narrative skills and a deeper appreciation for language.



### Google Earth VR

Explore the globe and inspire descriptive writing, storytelling, and comprehension through immersive 3D virtual field trips.

English HASS

**Starter Lesson** Start with a virtual tour of unique locations, then write descriptive stories based on observations.




### Curious Alice

A beautifully illustrated interactive story to explore: examining narrative structure, and creative expression.

English

**Starter Lesson** Engage with the interactive story, then write creative pieces inspired by its narrative and vocabulary.

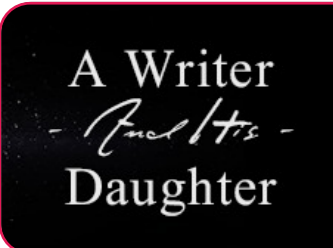


### Nature Treks VR

Explore a variety of serene and picturesque landscapes, enhancing descriptive writing and creative storytelling through vivid, sensory experiences.

English Science

**Starter Lesson** Explore a virtual nature scene during different times of day and describe the differences in environment to enhance descriptive writing skills.

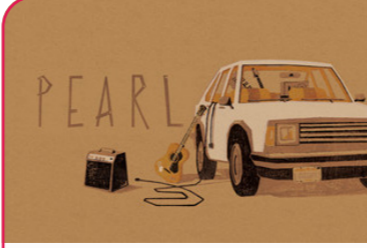


### A Writer and His Daughter

A narrative-driven exploration and puzzle-solving experience following a young girl into magical worlds that blend reality and fairytale.

English

**Starter Lesson** Experience a segment of this experience then share different theories and interpretations of the meanings behind the narrative, secrets and imagery.




### Google Spotlight Series: Pearl

A captivating and emotional interactive experience following a girl and her dad as they drive across the USA.

English

**Starter Lesson** Watch part of Pearl and create stories on character development and emotional depth.




### Increasing Empathy in VR Pilot Project

The Empathy in VR Pilot Project, an initiative co-designed between Lumination and Goolwa Secondary, looked at the use of immersive technologies in developing the central concept of empathy for middle school students.

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# Design & Technology

**Design & Technology** equips students with skills in problem-solving, innovation, and practical application of engineering principles. It enhances 3D thinking and learning through design projects and technological tools, helping students visualise and create tangible solutions. This subject nurtures creativity and critical thinking, preparing students for future technological challenges.




### gravity sketch

3D Design and Collaboration

Design & Technology The Arts

**Starter Lesson** Use 3D design challenges to enhance creativity and spatial thinking in virtual modeling.




### Tiny Town VR

Visualise architectural projects, experiment with layouts, and understand spatial relationships in a virtual space.

Design & Technology English

**Starter Lesson** Create and explore a replica of a local environment to experiment with architecture and spatial relationships.



### Google Blocks

Build and manipulate virtual structures in 3D, enhancing spatial understanding and problem-solving skills through interactive design challenges.

Design & Technology Maths

**Starter Lesson** Have students experiment with designing common furniture items to explore concepts of size, proportion and functionality.




### Gadgeteer

Build structures and experiment with mechanical systems, enhancing problem-solving and creativity in students as they design, test, and refine their own creations.

Design & Technology Science

**Starter Lesson** Have small groups design and test a mechanical system, before testing and discussing improvements on each other's creations.



### Skytropolis

Immerse students in urban planning, to foster creativity and problem-solving through interactive city-building.

Design & Technology HASS Maths

**Starter Lesson** Design a virtual city to boost creativity and problem-solving skills.



### Aligning Educational Objectives with XR Technology in Schools


To effectively integrate XR in the classroom and meet learning objectives, educators can start by identifying the learning gaps you aim to address.

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# Mathematics


**Mathematics** sharpens problem-solving and analytical skills by exploring numerical patterns, geometry, and logical reasoning. It enhances students' 3D thinking and learning through visual and spatial tasks, making abstract mathematical concepts more tangible. By solving real-world problems, students develop a solid foundation in quantitative reasoning and critical thinking.



**Google Earth VR**  
Explore real-world geography to teach geometry, measurements, and spatial reasoning through immersive 3D experiences and virtual field trips.

Maths HASS Science

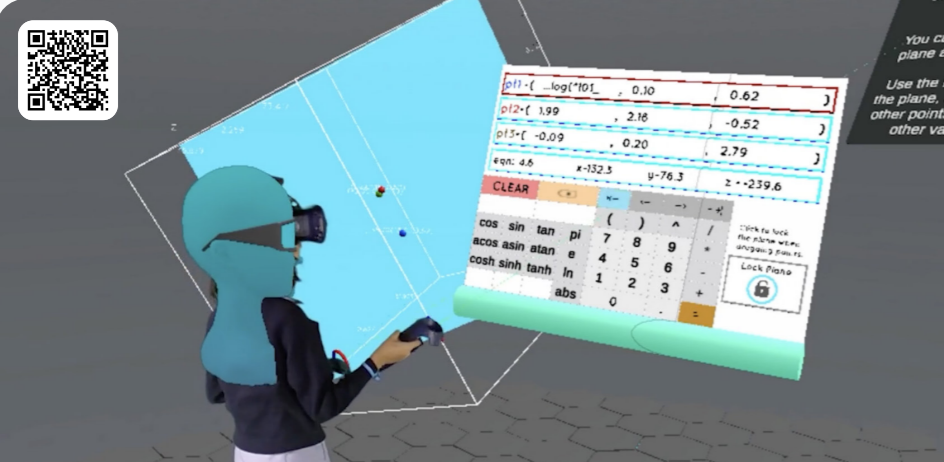
**Starter Lesson** Explore New York's Central Park to visualise and explore concepts such as perimeter, elevation, volume, and scale.



**Skytropolis**  
Engage students by challenging them to design and manage a city, integrating real-world problem-solving with mathematical concepts.

Maths HASS

**Starter Lesson** Design and manage a city to practise geometry, arithmetic, and spatial reasoning through engaging challenges.



**Reshaping the Maths Classroom with a Lumination Learning Lab**

See the variety of immersive experiences aimed at transforming traditional Maths education, covering topics like data visualisation, geometry, and architectural design.

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**Arkio**

**Arkio**  
A collaborative 3D design app that allows students to visualise and manipulate complex spatial concepts.

Maths Design & Technology

**Starter Lesson** Collaboratively manipulate 3D designs to enhance understanding of spatial reasoning and geometry.



**Calcflow**  
Powered by MATRYX


**Calcflow**  
Simplify complex equations and visualise vector calculus interactively through dynamic, visual problem-solving.

Maths

**Starter Lesson** Visualise and solve complex equations to deepen understanding of functions and algebra.

# Humanities & Social Sciences (HASS)

**HASS** provides insights into historical, geographical, and cultural contexts, fostering a deep understanding of human societies and global issues. It extends learning experiences by transporting students to different times and places, enhancing empathy and critical thinking. Through exploration of historical events and cultural dynamics, students develop a comprehensive understanding of their world.



**Google Earth VR**  
Explore historical sites, diverse cultures, and geographical features, fostering a deeper understanding of history and social sciences through immersive 3D experiences.

HASS Science Maths

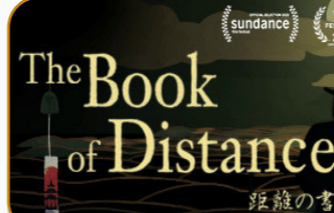
**Starter Lesson** Start by exploring historical sites and cultures in VR, then discuss their historical significance and features.



**Nefertari: Journey to Eternity**  
Explore ancient Egyptian culture allowing students to navigate historic sites and artefacts, enhancing their understanding of historical contexts and civilizations.

HASS History


**Starter Lesson** Explore Nefertari's tomb in VR, then analyse the historical and cultural importance in class discussions.



**The Book of Distance**  
A powerful visual pilgrimage of a Japanese man's immigration to Canada during the 1930s, created by his grandson.

HASS History

**Starter Lesson** Engage with the VR journey of migration, then discuss themes of historical migration, war, racism and cultural experience.



**Amazon Odyssey**  
Discover diverse ecosystems and wildlife of the Amazon, deepening understanding of environmental challenges and biodiversity.

HASS Science

**Starter Lesson** Dive into the Amazon rainforest with VR, then investigate its ecosystems and environmental challenges through class activities.



**1943 Berlin Blitz**

**1943 Berlin Blitz**  
Transport students to WWII Berlin with this immersive experience. Engage them in historical events and strategic thinking as they navigate the city under siege.

HASS History

**Starter Lesson** Experience WWII Berlin in VR, then analyse key events and strategic elements to deepen historical understanding.



**Improving Student Engagement in Geography**

## Improving Student Engagement in Geography


Students at Grange Primary School transcended the barriers of distance in their latest Geography unit, and were more engaged than ever before.

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# Science

**Science** cultivates curiosity and critical thinking through the exploration of natural phenomena and scientific principles. It enhances students' understanding of complex concepts by making abstract ideas more concrete through hands-on experiments and investigations. By studying various scientific fields, students develop problem-solving skills, 3D thinking, and a deeper appreciation for the natural world, preparing them for future scientific and technological challenges.




### Ocean Rift

Dive into a vivid underwater world to investigate marine ecosystems and diverse sea creatures.

Science HASS

**Starter Lesson** Explore marine ecosystems in action, then research and discuss sea creatures and their habitats.




### HoloLAB Champions

Delve into interactive lab scenarios and gain hands-on science skills in a simulated environment.

Science Design & Technology

**Starter Lesson** Conduct virtual experiments and test hypotheses to gain practical science skills and understanding.




### Home: A VR Spacewalk

Experience a spacewalk to deepen understanding of space science through this interactive, hands-on simulation.

Science

**Starter Lesson** Complete the spacewalk challenge before discussing the complexities of space travel.




### Dissection Simulator: Frog Edition

A virtual interactive frog dissection investigating internal biology in a controlled environment.

Science Health & PE

**Starter Lesson** Successfully perform a frog dissection before quizzing on anatomical composition.



### The Body VR

### The Body VR

A journey through the human body, detailing cellular structures, systems and biological processes up close.

Science Health & PE

**Starter Lesson** Travel through the bloodstream and examine microscopic cells up close, before discussing the qualities and roles of various organelles.




### Enriching the Science Classroom with a Lumination Learning Lab

See some of the tools and experiences you can deploy in the Science classrooms to elevate the learning experience.

[View full article](#)

# Health & Physical Education

**Health & Physical Education** promotes physical fitness, teamwork, and mental well-being through various sports and health-related activities. It provides opportunities for practising physical and mental tasks, fostering resilience and coordination. By engaging in diverse activities, students learn about healthy lifestyles, develop social skills, and enhance their overall well-being.




### All-In-One Sports VR

A virtual sports environment to practise a variety of physical activities and games, promoting teamwork, skill development, and active participation in a fun, virtual setting.

Health & PE Maths

**Starter Lesson** Kick off with a virtual sports session, then focus on skill development and teamwork in different activities.




### Final Soccer

Enhance students' understanding of teamwork and strategy through this soccer simulation experience.

Health & PE Maths

**Starter Lesson** Start with a VR soccer game to practise teamwork and strategy, then discuss decision-making and coordination.




### Kellogg's Gut Bacteria Reef

A captivating virtual journey inside the human gut, illustrating how diverse bacteria and fibre contribute to gut health, emphasising the balance needed for well-being.

Health & PE Science


**Starter Lesson** Begin with a VR tour of the gut, then discuss how bacteria and fibre impact digestive health.



### The Impact of Game-Based Learning on Student Outcomes

See how the Game-Based Learning principles are fostering student participation, collaboration, and motivation in the classroom.

[View full article](#)



### Space Dance Harmony

### Space Dance Harmony

Get students moving with this space-themed dance experience, blending physical activity with engaging, futuristic visuals.

Health & PE Arts

**Starter Lesson** Begin with a space-themed dance VR experience to boost coordination, rhythm and fitness through creative movement.



### The Body VR

### The Body VR

Guide students through the inner workings of a cell to gain a deeper appreciation for cellular processes, health, biological functions and systems.


Health & PE Science

**Starter Lesson** Explore cellular functions in VR, then discuss how understanding cells contributes to overall health.



## The Arts

**The Arts** is a learning area that draws together related but distinct art forms. Each of these art forms involves different approaches to arts practices and critical and creative thinking that reflect distinct bodies of knowledge, understanding and skills. The curriculum examines past, current and emerging arts practices across a range of cultures and places.




### Tilt Brush

Unleash creativity: paint and sculpt in a 3D space, offering a unique way to visualise and create art beyond traditional mediums.

[The Arts](#) [General](#)

**Starter Lesson** Replicate famous 2D artworks in 3D to explore the freedoms and limitations of different artistic mediums.




### Lyra VR

Create and build on unique musical compositions in a unique visual format, enhancing understanding of sound design, and exploring artistic expression.

[The Arts](#) [Music](#)

**Starter Lesson** Have small groups collaboratively compose unique musical creations conveying a particular theme, before sharing and discussing as a class.




### Space Dance Harmony

A cosmic dance adventure where rhythm and creativity blend. Choreograph movements and create visually stunning performances, inspiring innovation and artistic expression.

[The Arts](#) [Health & PE](#)

**Starter Lesson** Have students choreograph cosmic dance performances to tell a short story, before sharing and discussing and interpreting as a class.




### Nature Treks VR

Immerse students in stunning natural environments, fostering creativity and imagination to enhance visual storytelling skills.

[The Arts](#) [English](#) [HASS](#)

**Starter Lesson** Explore virtual natural landscapes before creating imaginative art and visual stories.




### SculptrVR

A 3D virtual sculpting tool, encouraging imaginative expression and experimentation with digital artistry and spatial design.

[The Arts](#)

**Starter Lesson** Have students create fantastical versions of real world organic forms from nature, exploring how texture, colour and scale change our perception of the natural and artificial.




### Reimagining the Arts Classroom with a Lumination Learning Lab

Delve into drawing, creation, explore music and dance, and uncover art history and culture with engaging, interactive tools.

[View full article](#)

## Other

Other subjects like **Languages**, **History**, **Religious Education** and **Career Exploration** offer unique opportunities for personal and professional growth. They enhance students' empathy, extend learning experiences, and make abstract concepts more concrete through immersive and practical activities. These areas develop language proficiency, historical understanding, and career skills, preparing students for diverse futures and global citizenship.



### Mondly

Help learners develop fluency and confidence in their language skills through real-life conversations and engaging cultural scenarios.

[Languages](#) [English](#)

**Starter Lesson** Engage in interactive conversations to practise new languages, focusing on conversational skills and cultural nuances.



### Navigating Futures: Youth Job Readiness Using XR Pilot Study at Goolwa Secondary

Discover how students at Goolwa Secondary College in South Australia used their Lumination Learning Lab to embark on a journey of career exploration through immersive technology.

[View full article](#)




### Il Divino: Michelangelo's Sistine Ceiling In VR

Explore Michelangelo's Sistine Chapel, deepening understanding of Christian art and theology.

[Religious Education](#) [History](#)

**Starter Lesson** Examine Michelangelo's artistry in VR, analysing its biblical scenes and religious significance.




### Work Window

Prepare students for their future careers with an interactive job interview simulator and virtual job shadowing, providing valuable insight and practise for real-world job skills and professional growth.

[Career Exploration](#) [English](#)

**Starter Lesson** Simulate a job interview scenario in VR to practise answering common questions and receive feedback.



### Google Earth VR

Take students on a virtual journey to historical landmarks, exploring key events, bringing history to life through immersive, real-world locations.

[History](#) [HASS](#) [Science](#)

**Starter Lesson** Explore medieval castles in Google Earth VR, analyzing their strategic locations and architectural features.



Maximise the potential of your immersive technology with our support. Contact our team to discover how we can integrate a Lumination Learning Lab into your educational environment.



**lumination.com.au**  
**1300 833 765**