

Lesson Plan

IMVR LESSON PLAN

Schools of the Future

Learning Area	Geography	Kit	Lumination Immersive Virtual Reality (IMVR) Kit (Lumination AR/VR Education Kit if using devices)
Year Level	Year 9	Duration	2x 60 minute Lesson

Introduction/Description

Schools have largely remained the same over the past century. If you could design a school from the ground up - what would it look like, how would you build it, what would you do differently to our current classroom?

Learning Intentions

Students will explore the possibilities of what a Future Classroom might look like and how students will learn differently. Classrooms will be made using Google Blocks IMVR, school playgrounds and buildings designs will be made in Cospaces, and research skills will be utilised to explore emerging evidence-based pedagogies. Students are also encouraged to consider different geographical regions in this task.

Task Summary

Students will explore ideas about future classroom architecture and pedagogy using immersive learning technology

Preparation

Students are expected to:

- Have some background knowledge on using Immersive Reality (IMVR) Headsets.
- Have some background in using Cospaces
- Have background experience in creating using Google Blocks on IMVR.

Teachers should make sure that:

- Devices are charged (if using)
- Students are able to access YouTube videos.
- Presentation slide deck has been checked.
- A padlet has been created and the link shared on the presentation slide deck for students.
- A copy of the Student Digital Notebook has been distributed to students and they have downloaded/ made a copy for themselves.

- Students are divided into pairs or groups depending on how many devices are available. A suggested rotation cycle may be:

Group	Round 1	Round 2	Round 3
Group 1	IMVR	Design	Design
Group 2	Design	IMVR	Research
Group 3	Design	Design	Design

This may differ based on student numbers and number of IMVR headsets/ devices.

Resources

Hardware

- IMVR Headsets
- Mobile Devices
- Student Laptops
- Headphones
- Internet Access
- Smartboard/TV

Tasks/Presentations

- [Schools of the Future - Student Digital Notebook](#)
- [Schools of the Future - Teaching Deck](#)
- [VR Safety Poster](#)

Videos

- [Technology in Education: A Future Classroom](#)
4 minutes
An inspiration for what a future classroom might look like
- [Why the future classroom will have more VR applications than...](#)
2 minutes
VR applications in the classroom
- [Chen Qiufan: A sci-fi vision of life in 2041 | TED](#)
8 minutes
Sci fi classrooms

VR Experiences

- [Google Blocks](#)
Google Blocks lets you create objects and edit models in 3D space with virtual reality.
- [Arkio](#)
A powerful architectural software to create environments

Websites

- [Cospaces](#)
Open a suite of intuitive built-in tools to create anything in 3D! Use existing assets from the library, building blocks to model your own objects, or upload external files.
- [Ed Research](#)
A platform which has research papers surrounding education

Other Learning Areas

- Digital Technologies

Learning Sequence

1

Introduction
(8-10 mins)

- Ask students to access and view '[Classroom of the Future](#)(time)'.
• Watch [Classrooms of the Future](#) (4:04)
• Students [Think-pair-share](#) on page 3 of their [Schools of the Future Student Digital Notebook](#) ;
 - How realistic is this vision for the classroom of the future?
 - What do you like about this?
 - What other changes would you make?

2

Part 1
(40 - 45 min)

Research

Students complete page 4 in their

[Schools of the Future Student Digital Notebook](#)

In pairs, use your research skills to answer the following

- Choose a region within Australia (or within the Asia-Pacific as a part of the NSW Stage 5 Geography Australia's Neighbours unit)
- What are some geographical features and characteristics of your chosen region (e.g. population, settlement patterns, cultural diversity etc.)
- What are the key statistics for education in this region? (e.g. student enrollment, graduation rates of different education levels, etc.)
- What are some new schools or innovative educational ideas currently being tested?
- What are some concerns in the current educational model? How do you think people or governments can try to address them?

3

Part 2
(40-45 mins)

Introduce the stations students will engage in

Station based learning

Station-based Learning in 10-15 min interval rotations

Station 1 - IMVR

In groups, create a visual representation of a potential classroom using Google Blocks, for the Future Classroom consider

- What technology will be used?
- What will the layout look like?
- How will learning take place?

Station 2 - Design

In pairs, use Cospaces to design the layout of the school including the playground and buildings, for the Future School consider

- How much space will you have (city or regional?)
- How many students will there be?
- What will the age groups be?
- What facilities will be required?

Students take screenshots and include the link on pages 5-7 of their

[Schools of the Future Student Digital Notebook](#)

4

Conclusion
(5-8 mins)

Ask students to complete the following exit ticket on www.padlet.com:
What are the most important changes you think need to be included in "The Schools of the Future"

Additional Teaching Notes

It is anticipated that students will need more time to create their school environment in Cospaces, hence, there are two station sessions dedicated to spending time doing this.

Modifications

Adaptations

Student school designs can be shared in VR or AR mode as a virtual tour.

Students could design their classrooms or schools using Arkio

Students can also research emerging teaching pedagogies (see station 4)

Extension Ideas

Students may import models into Google Blocks or Cospaces using TinkerCAD

Students could export their classroom designs from Google Blocks and view in AR using [3D Bear AR](#) or VR using Cospaces

Students consider sustainability implications of the new school build

Station 3 - Pedagogies (Optional)

Detail emerging teaching pedagogies which are transforming the way students work in the classroom. Some ideas include,

- Immersive Learning
- Project Based Learning
- Stage Based Learning

Curriculum Connections

Australian Curriculum	NSW Curriculum	VIC Curriculum
<p>Year 9 - Geography</p> <p>strategies used to enhance the liveability of places, especially for young people, including examples from Australia and Europe ACHGK047</p> <p>Management and planning of Australia's urban future ACHGK059</p>	<p>Stage 5 - Geography</p> <p>analyses management strategies and the roles and responsibilities of individuals, groups and governments in response to geographical issues GEE5-7</p>	<p>Levels 9 & 10 - Geography</p> <p>Role of initiatives by international and national government and non-government organisations to improve human wellbeing in Australia and other countries VCGGK154</p>
<p>Year 9 - Design and Technologies</p> <p>interpret and manipulate data to aid the development of design ideas ACTDEK047</p>	<p>Stage 5 - Design and Technology</p> <p>selects and uses a range of technologies competently in the development and management of quality design solutions DT5-10</p>	<p>Levels 9 & 10 - Digital Technologies</p> <p>Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs VCDTCD050</p>

Cross-Curriculum Priorities

- ☒ Aboriginal and Torres Strait Islander Histories and Cultures
- ☒ Asia and Australia's Engagement with Asia

☒ Sustainability

Capabilities

☒ Literacy

☒ Numeracy

☑ ICT Capability

☑ Critical and Creative Thinking

☑ Personal & Social Capability

☑ Ethical Understanding

☒ Intercultural Understanding