

VR LEARNING TASK

Urbanisation and the Future of Cities

Learning area

Humanities and Social Sciences -
Geography

Year level

Year 8

Duration

60 minutes

Task summary

After being introduced to the concept of urbanisation, students use virtual reality to investigate how it affects the human experience.

Session overview

Students can define urbanisation and identify its positive and negative effects on the general human experience.

Digital technologies

- VR
- AR
- Robotics
- Drones
- Other: _____

Required resources

Hardware:

- Handheld Virtual Reality (HHVR) headsets
- Devices
- Presentation screen

Apps:

- **YouTube** - This needs to be whitelisted and downloaded on your devices.

VR videos:

- [360 video, Shanghai, China. The most populous city in the world. 8K aerial video\(3:53\)](#) - Learn more about one of the biggest and most populated cities in the world in this VR video.
- [360° VR Video – Constructing Tomorrow. How will we live in tomorrow's cities \(3:11\)](#) - A 360° encounter on: What will life look like in the future? Climate change, urbanisation and limited space dominate our future development. How will we live in fifty or hundred years, what will our cities and our homes look like?

Learning task

Videos:

- [Urbanization and the future of cities - Vance Kite](#) (4:08) - Vance Kite plots our urban past and how we can expect future cities to adapt to our growing populations.

Teaching resources:

- [Teaching deck](#)
- [Student digital notebook](#)
- Urbanisation Brainstorming - See example via [Microsoft Whiteboard](#).

Other resources to try (optional)

Video:

- [40 Years of Urbanization Captured by Google Earth](#) (5:36) - A time lapse screen capture of how urbanisation affected various cities as reflected on Google Earth around the world over the years. (Alternative: Go to the 'Voyager' section of Google Earth app and view the 'Urban Expansion' presentation.)

Apps:

- **Google Earth** - To view the 'Urban Expansion' timelapse presentation in the 'Voyager' section. (Use the [Web version](#) or Download via [Google Play](#) or [Apple App Store](#)).
- **Expeditions Pro** - To view various VR videos relating to this topic. For this lesson, check the 'Travel and Leisure' section. Currently available cities that may be relevant: Jaipur, India; Shanghai, China; and Singapore. ([Download via Google Play](#))
- **CoSpaces EDU** - If considering the extension activity of building a sustainable city in Virtual Reality (VR).
- **Microsoft Forms** - Teachers can create a poll using this or any other polling tool that they may have access to.

Tutorials:

- Getting Started with Handheld VR
 - [Headset Functions](#)
 - [Student Device Functions](#)

Miscellaneous:

- [VR/AR Safety Poster](#) (PDF)

Planning and preparation

Assumptions

Students are expected to:

- Have little to no prior knowledge on the topic of urbanisation.
- Understand VR safety (please refer to [VR/AR Safety Poster](#) if necessary).
- Understand how to make a copy of the student digital notebook so they can edit it.

Additional preparations for teachers

- Create an interactive poll using a platform of your choice (Teams / Microsoft Forms etc.) in advance. Possible questions:
 - Poll: Do you think Urbanisation is beneficial to society? (Yes/No)
 - Open Ended: Why do you think Urbanisation is beneficial/not beneficial to society?

- Make sure student devices are fully charged and have the necessary apps installed.
- Teachers should watch the videos and test the apps in advance to make sure that they are appropriate for their respective classes.

Task Sequence

1

Tell students that the focus of this lesson is urbanisation.

Ask them to fill out the THINK, PUZZLE, EXPLORE thinking routine on page 2 of their student digital notebook.

**Introductory activity
/ Provocation**
(5 – 10 mins)

- What do you THINK you know about Urbanisation?
- What PUZZLES you about this topic?
- How do you want to EXPLORE this topic?

2

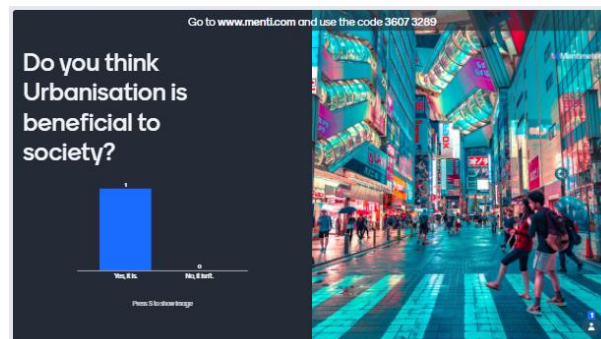
Show students the video, [Urbanization and the Future of Cities](#) (4:08), using slide 3 of the teaching deck.

Activities
(30 – 40 mins)

Discuss the following questions on slide 4 as a class:

- What did you learn about urbanisation?
- Is urbanisation a new concept? What is its history?
- Are there advantages to urbanisation? What about disadvantages?

Using their devices or laptops, ask students to log into your chosen polling website (menti.com is shown below) and enter the code. Slide 5 of the teaching deck is available to add any links you have to your chosen polling website.



Ask students to discuss the results of the interactive poll in small groups of 2 or 3 (slide 6). Get students to ask each other:

- What do they think of the results? Do they agree or disagree? Why or why not?
- Why do they think urbanisation is beneficial or not beneficial to society?
- Do you think urbanisation is beneficial to society?

While students are discussing the results, distribute the HHVR headsets and devices.

Give students time to watch [Constructing Tomorrow: How We Will Live in Tomorrow's Cities - VR 360' Video](#) (3:12) and [Shanghai, China - The Most Populous City in the World - 360 Video](#) (3:54) using the QR codes on slide 7 of the teaching deck. The QR codes can also be found on page 3 and 4 of the student digital notebook.

Based on the videos that the students watched, students fill out the activities on slides 3 and 4 of the student digital notebook.

**If there are limited student devices and HHVR headsets, split the class into two groups and rotate the groups after 15 minutes. Half of the class can view the VR videos, and the other half can view the [40 Years of Urbanisation Captured by Google Earth](#) video (5:36) and complete the activity on slide 5 of the student digital notebook.*

3

**Check for
understanding**
(5 mins)

Instruct students to write a two-sentence definition of urbanisation on page 7 of their digital notebook. Instruct them to share their definition either in small groups or as a class.

Learning task

Differentiation for students with additional needs	Extension ideas	Video tips
<p>Students may choose to work with a partner or helper when completing their tasks.</p> <p>Students may choose to limit the number of things they would write in their tasks.</p>	<p>Students may opt to focus on one Asian city and research the effects of urbanisation in that particular place. Find out how they are addressing issues for the future.</p> <p>Students may wish to watch additional VR videos that focus on specific cities that they wish to learn more about.</p> <p>Show students the video 40 Years of Urbanization Captured by Google Earth (5:36) Get students to think about how urbanisation is affecting Australian cities.</p> <p>Give students the opportunity to use the Skytropolis app on the IMVR, if available.</p> <p>Consider designing a Sustainable City on VR using CoSpaces based on ideas learnt from their brainstorm.</p>	<p>The video for this learning task demonstrates how to set up a poll using Microsoft Teams.</p>

Curriculum Connections

Australian Curriculum Version 9.0

Year 8 - Geography

Causes of urbanisation and its impacts on places and environments, drawing on a study from a country such as the United States of America, and its implications. (AC9HG8K06)

Cross-curriculum priorities

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

General capabilities

- Literacy
- Numeracy
- Digital Literacy
- Critical and creative thinking
- Personal and social capability
- Ethical understanding
- Intercultural understanding