

AR LESSON PLAN

Amazing Angles

Learning Area

Mathematics

Year Level

Year 3

Kit

AR/VR Education Kit

Duration

1x 60 minute lesson

Lesson Overview

From the corners of our rooms to the objects we use daily, right angles play a crucial role in our lives. Get ready to sharpen your angle-detecting skills and gain a newfound appreciation for the geometry that surrounds us. By the end of this lesson, students will see the world in a whole new, right-angled light!

Learning Intentions

After this lesson, students will

- Be able to locate right angles in everyday situations and,
- Compare them with other angles.

Task Summary

During this lesson, students will view an AR experience on a Merge Cube to identify right angles in everyday objects. Students will be able to compare them with each other using 'more' or 'less' descriptions. Additionally, students will go on a right angle scavenger hunt in the classroom and surrounding areas.

Prior Knowledge

Students are expected to:

- Be familiar with viewing AR content in CoSpaces.



Resources

Hardware

- Mobile Devices
- Presentation monitor / TV
- Merge Cubes

Apps

- CoSpaces

Videos

 [Right Angles](#) (2.5 minutes)

In this video, the concept of right angles and their measurement of 90 degrees is explained. Examples of right angles are shown in squares, rectangles, objects like tables and trees, and even in images on a screen. The video also demonstrates how to use a right angle tester to determine if other angles are more or less than a right angle.

Teaching Materials




-  [Teaching Deck - Year 3 Amazing Angles](#)
-  [Merge Cube Record Template](#)
-  [Scavenger Hunt Template](#)

Teacher Preparation

Reminders

- All hardware has been charged and sanitised.
- Student Devices have the most recent updated version of CoSpaces installed.

Tasks

- The following slide deck  [Teaching Deck - Year 3 Amazing Angles](#) has been checked and the teacher has accessibility.
- Students have been divided into pairs or groups and names are written on Slide 6.
- A copy of the  [Scavenger Hunt Template](#) and  [Merge Cube Record Template](#) have been printed for students to complete.



Learning Sequence

1

Introduction (5 mins)

- View [Right Angles](#) as a class and discuss:
 - What objects did the video show to have right angles?
 - How do you know if an angle is a right angle?
 - Can you find something that doesn't have a right angle?
- Introduce the focus of this lesson to students. Tell them that they will be learning more about right angles by viewing an AR experience using a Merge Cube, and going on an angle scavenger hunt.

2

Development (45 mins)

- Revise the three characteristics of a right angle using Slide 3 of the [Teaching Deck - Year 3 Amazing Angles](#)
- Using Slides 4 and 5 of the [Teaching Deck - Year 3 Amazing Angles](#), discuss how we can compare other angles by identifying whether they are greater or smaller than a right angle.
- Split the class into two groups, write their names on the table on Slide 6 of the [Teaching Deck - Year 3 Amazing Angles](#) and explain the following two tasks to students using Slide 7.
- AR CoSpaces Task: with a device from the AR/VR kit, students view the [Amazing Angles Merge Cube](#) using the CoSpaces app. In this experience, students examine a series of objects to identify right angles, and angles that are greater/smaller. Students need to tap on the angles they see, and correctly identify whether it is a right angle, or greater / smaller.

Optional: students record the angles that they find using the

- [Merge Cube Record Template](#)
- Right Angle Scavenger Hunt: students conduct a scavenger hunt around their classroom and surrounding areas to find as many right angles as possible. Students also need to find angles that are greater / smaller than right angles. They keep track of what they find using the [Scavenger Hunt Template](#). Students can work in pairs or individually.
- After students have worked on their first activity for 10-15 minutes, swap the groups over.
- Ensure students return the devices to the AR/VR kit when finished.



3

Conclusion (5 mins)

Ask students to pair up with another group and take turns sharing which objects they found during their Scavenger Hunt.

Discuss the following as a class using Slide 5

- Did your groups find any of the same objects?
- Did anybody find angles that are greater than / smaller than a right angle?

Modifications

Adaptations

- The scavenger hunt could be used for other types of angles rather than right angles (acute, obtuse, reflex).
- If not enough Merge Cubes are available for half the class, print and create extra using [this template \(the file will automatically download\)](#).

Extension Ideas

- Students create their own Merge Cube showcasing what they know about right angles.
- Art: students create their own artwork that prominently features right angles.
- Design and Technologies: students design a blueprint for their ideal classroom layout, including objects with right angles (desks, doors, windows, books etc).

Curriculum Connections

Australian Curriculum	SA Curriculum	NSW Curriculum	VIC Curriculum
Version 9 Year 3 Mathematics Measurement AC9M3M05 <i>Identify angles as measures of turn and compare angles with right angles in everyday situations</i>	To be updated upon release	Stage 2 Mathematics Working mathematically MA2-GM-03 <i>Identifies angles and classifies them by comparing to a right angle</i>	Levels 3 and 4 Mathematics Geometric reasoning VCMMG146 <i>Identify angles as measures of turn and compare angle sizes in everyday situations</i>



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