Visiting a Swimming Pool

Activity 2

LEVELS 3 & 4

View the 'Visiting a Swimming Pool' VR tour at https://lsv.com.au/vr/

Key Learning

During this lesson, students will revise the concepts of area and perimeter. They will then apply this knowledge to design different shaped pools with the same area.

Resources

- Measuring tape
- Appendix A: *Grid paper*

Engage

- Ask students if they know how long/wide an Olympic sized swimming pool is (50 metres long and 25 metres wide). Ask for a student volunteer ('Jack') and measure their height using the measuring tape. Now ask students to estimate how many 'Jacks' we could fit head to toe along the length and width of the pool.

Explore

- Group students in pairs and give them a copy of Appendix A: *Grid paper*. Ask students to work out how much space the pool takes up (i.e. its area) by drawing it on the grid paper. Allow them to use whatever strategy they like at this point.

Curriculum

Mathematics – Measurement and Geometry

Using units of measurements

Level 3

- Measure, order and compare objects using familiar metric units of length, area, mass and capacity (VCMMG140)

Level 4

- Compare objects using familiar metric units of area and volume (VCMMG166)

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Explain

- Ask students to share their findings. Encourage them to share the strategies they used.
- *Answer: Area = 1250m^2 or 1250 grid squares*
- Explain to students that the amount of space a 2D shape takes up is called its ‘Area’. Explain that the ‘Perimeter’ is the distance around the outside of the shape. Ask them to find the perimeter by counting on their grid paper.
- Some students may realise at this point that if we know the length and width we can just double both and add them. Depending on student ability, you could introduce the formulas for calculating area and perimeter

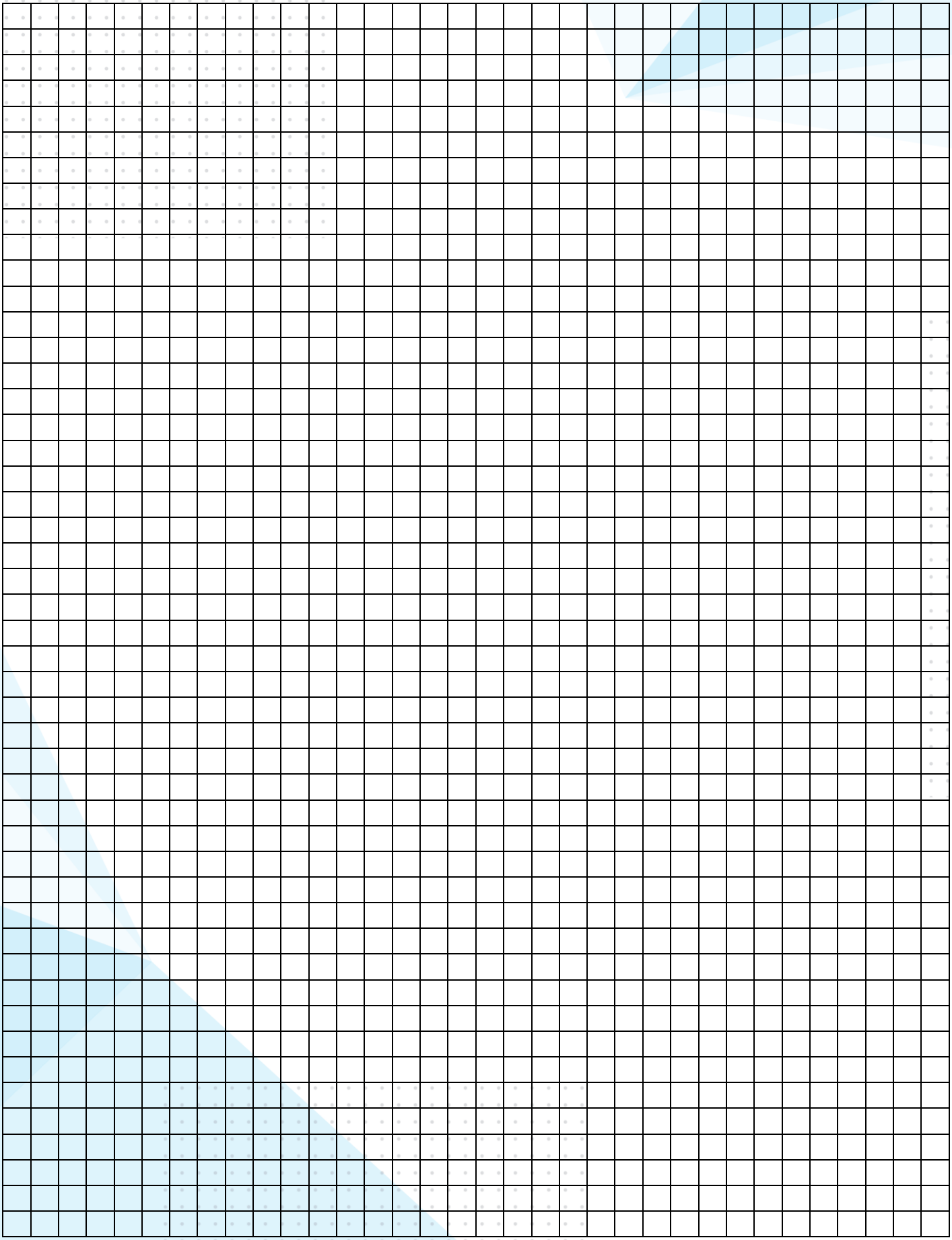
Elaborate

- Now give students another copy of Appendix A: *Grid paper*. They now need to design a swimming pool that has the same area as an Olympic swimming pool (e.g. takes up 1250 grid squares) but has the largest possible perimeter.

Evaluate

- Ask groups to share their findings. Discuss:
- Whose pool design had the largest perimeter?
- What strategy did you use?
- What do you notice about the shape as the perimeter increases?
- Would this design be efficient/realistic in real life? Why/why not?

Appendix A
Grid paper



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