

# Perfect Packing

You need: a ruler, card, scissors, square grid paper, sticky tape or glue, a compass

## ACTIVITY

Artistic Izzy carves emu eggs with intricate designs and sells them to tourists.

She needs to design and make containers that will keep the eggs safe when travelling. Medium-sized emu eggs are 12 centimetres long and have a diameter of 8 centimetres. They need to be packed individually.

1. She decides to make a cuboid-shaped box that is suitable for a medium-sized egg. She thinks it will be safest if there is a gap of 1 centimetre between the egg and all sides of the box.
  - a. Draw the net for this container, showing the dimensions. Add glue tabs and a lid flap.
  - b. Make the container.



2. Izzy wants to stop the egg moving inside its container. She makes inserts one-quarter of the distance from the top and bottom of the box to support it.
  - a. Design the net for these inserts. If you had a real emu egg, how could you get the dimensions just right?
  - b. Make the inserts and fit them inside the container.
3. Karl suggests that a square-based pyramid might make a good container. Draw the cross-section of a pyramid and investigate this idea.

