Mathematics

Teaching and Learning: What is Visualisation?

Circles

Try these visualisation activities.

- Imagine a circle moving around on a piece of paper.
  It can change its size and it can move anywhere on the paper.

- Now imagine a fixed point, also on the paper.
  The circle moves again, but the circumference always passes through the fixed point.
  Can you visualise the circle? Where can it move?

- Repeat this, but with two fixed points that the circumference of the circle passes through.

- Repeat for three fixed points.

TRY TO DO THEM IN YOUR HEAD before you look at anything.

SHUT YOUR EYES if it helps.

Try them INDIVIDUALLY and then TALK IN A GROUP, but do not give any answers away – help others to see what you can see.

Remember, NO DRAWING, only talking, and NO GESTICULATING either.

Have a look at this hint if you need it.

Try a similar exercise with squares.

Hint for visualising circles

When there are two fixed points that the circle passes through, it will be helpful to picture the centre of the circle.

When you have done this, change the circle, but keep the two points fixed. Where is the centre now?

Where must the centre always lie?

Now describe where the circles lie and this will help you visualise them all – articulation and visualisation go hand in hand.