

Angles: an angle is an amount of turn

CURRICULUM ALIGNMENT

SHA.SAL.3b

compare and classify angles, recognising them as a property of a shape and as a description of a turn.

WHAT THIS LESSON TEACHES

An angle is the amount of turn between two lines meeting at a corner. A bigger opening means a bigger angle.

→ Opening scissors a little makes a small angle; opening wide makes a big angle.

→ Turning to face the window shows the angle as how far you turned.

MODEL THIS ON THE BOARD

COMPARE TWO TURNS

- 1 Start facing front.
- 2 Make a small turn to the side.
- 3 Make a much bigger turn round.
- 4 The second turn has the bigger angle.

DISCUSSION STARTER

REFLECT Does the length of the arms change how big an angle is, or only the turn?

LESSON ARC

Open by turning on the spot at the front — face the window, then the back wall — feet planted, so pupils spot that only your facing changed. Bring out the joined-strip turning arm: open it a little, then a lot, naming each as an angle. The pivot demonstration slides one strip longer at a fixed opening — the angle holds. Pupils sketch a small and big angle in their copy, then test turns against a folded paper corner, first as a class, then at their seats.

TEACHING MOVES

1. **Getting Started.** Do the two turns yourself, feet glued to one spot so the class sees you turn without walking. Take two or three hands only — you're fishing for 'the way you're facing changed'. Hold the word 'angle' back for now.
2. **Watch and Notice.** This is a real front-of-class demo, not the interactive. Open the turning arm a little then a lot, naming each as an angle. For the key move, fix the opening, then ask the class to predict before you slide one strip longer — hold out for a pupil to say the opening is the same before you confirm the angle didn't change.
3. **Sketch a small and a big angle in your copy.** Walk the room checking both angles share one corner and the wider opening is labelled the bigger turn. Watch for pupils drawing the big angle with longer arms rather than a wider opening, and nudge them back to the opening.
4. **Try It Together.** Make each turn on the large arm at the front, and have every pupil check the matching opening against their own paper corner at the same time — nobody just watches. Before each opening, the class predicts. Revoice: 'so the opening tells us the angle, not the length of the arms.'

5. **Class Challenge.** Brisk practice round — every pupil works their own joined arms at their seat while you circulate; no board work. Catch the pupil who makes a 'bigger' turn by stretching the arms, and point straight back at the opening. Close by having the class confirm aloud which of their two openings was the bigger turn.
6. **What Did We Notice?.** Pose the longer-arms question and listen for 'it's the opening, not the arm length'. Revoice a strong answer: 'so a long clock hand and a short clock hand at the same time make the same angle.'

COMMON MISCONCEPTIONS

⚠ Pupils make a 'bigger' angle by stretching the arms out longer rather than opening them wider — they think length equals size of turn.

Hold the turning arm at a fixed opening and slide one strip out longer in front of them. Ask: did the gap between the arms change? Point straight back at the opening. The clock-hand image seals it — long hand and short hand at the same time, same angle.

⚠ When two openings sit side by side, pupils pick the one with the longer arms as 'the bigger turn' rather than comparing the openings.

Lay both openings so their corners touch and the arms line up along one shared edge. Now the wider opening is unmistakable regardless of arm length. Ask the pupil to trace the gap with a finger to judge which turn is bigger.

DIFFERENTIATION

EMERGING

- Give these pupils the folded paper corner as a yes/no tester first — bigger than a square corner or smaller? — before asking them to compare two free openings.
- In the copybook sketch, let them trace round the open turning arm twice (small then wide) so both angles share a real corner before they label the bigger turn.

DEVELOPING

- After they've tested a wider-than-square turn, ask them to make a turn about halfway between the smallest opening and a square corner and describe it in words.
- Have them set the arm to a square corner, then predict aloud what the paper corner will show before checking — justify before testing.

PROFICIENT

- Set the turning arm and the clock face to the same opening, then ask: could you make that same angle with much longer arms? Prove it to a pupil who thinks longer arms mean a bigger turn, using the paper corner as evidence.

✂ **Cross-curricular:** Tie to PE — in a spot on the yard, pupils face one landmark then quarter-turn to face another, naming each turn as a small or big angle without stepping.

ANSWER KEY

c) the third (wider than square corner)

Q1: all the way

Q2: a full spin

Q3: the child who turns half way round

Q4: Yes, the same

Spot: An angle is an ****amount of turn****, not how long the arms are. Angle A (the wide opening) is the bigger angle, even though its arms are shorter.

EXTENSION SHEET · STRETCH ANSWERS

S1: 126° is obtuse

S2: 47° is acute

S3: 158° is obtuse

S4: 15° is acute

S5: 158° is obtuse