

Equal parts matter: is it really a half?

CURRICULUM ALIGNMENT

NUM.FRC.2a recognise and name fractions according to their part-whole relationships.

INTERACTIVES Pizza Slicer · challenge, display, explore

WHAT THIS LESSON TEACHES

Equal parts are parts that are exactly the same size as each other. One of two equal parts of a whole is a half.

- Two pizza slices that match when you lay one on top of the other are equal parts.
- A cake cut into one giant piece and one tiny sliver is not cut into halves.

MODEL THIS ON THE BOARD

IS THE PIZZA CUT A FAIR HALF?

- 1 Look at a pizza cut into two slices.
- 2 Check if the two slices are the **same size** and would match if laid one on the other.
- 3 If they match, each slice is a **half** and the share is fair.
- 4 If one slice is giant and one is tiny, the parts are **not equal**, so neither is a half.

LESSON ARC

Open with the class puppet's giant cake slice and tiny sliver — three hands-up answers on whether the tiny piece is a half. On the IWB, set the fair pizza beside the unfair cake so both stay visible. Pupils take turns shading a fair half on the pizza-slicer interactive. Copybook: every pupil draws one unfair cut (cross) and one fair middle cut (tick) on pre-drawn circles. Class Challenge keeps fair-half shades brisk; close by revoicing that two pieces only count as halves when both parts match.

TEACHING MOVES

1. **Getting Started.** Show the puppet's giant-and-sliver cake and take three hands-up answers only — no open call-outs. Listen for anyone saying the pieces must match; revoice that idea without naming the half rule yet.
2. **Watch and Notice.** Point at the fair pizza first and wait until pupils say the parts match before you name half. Hold the giant-and-sliver cake beside it so both stay visible. Ask: same whole, two pieces each time — which cut gives a half? Catch 'two pieces means half' and revoice: the parts have to be the same size.
3. **Try It Together.** One pupil shades a fair half on two equal slices on the pizza-slicer interactive; the class agrees or corrects out loud. Rotate three or four pupils on fair halves only. Between turns, hold up the unfair cake and ask why that is not a half. Do not ask anyone to make an unequal cut — the tool only makes equal slices.
4. **Half or not, then draw equal halves.** Every pupil draws an unfair big-and-tiny cut and crosses it, then a line through the middle of a pre-drawn circle and ticks it. Walk the room glancing at crosses, ticks and middle lines — no marking. Praise matching parts and a clear reason the unfair cut is not a half.
5. **Class Challenge.** Pupils take turns shading a fair half on the pizza-slicer; after each Check, a quick revoice only: are the two parts equal, so is it really a half? Keep it brisk — unequal cuts were fixed in the copybook; do not re-teach them here.

6. **What Did We Notice?.** Ask why a big-and-tiny cut is not a half even with two pieces. Listen for 'the parts have to be the same size' and revoice: two pieces only count as halves when both parts match. Head off any lingering 'two pieces make a half'.

COMMON MISCONCEPTIONS

⚠ Pupils say 'there are two pieces, so each one is a half' — they count pieces and ignore size.

Hold the fair pizza and the unfair cake side by side. Same whole, two pieces each time. Ask which parts would match if you laid one on the other. Revoice: two pieces only count as halves when both parts match.

⚠ Pupils draw a cut well off-centre, tick it as a half, and treat 'nearly through the middle' as good enough.

At the copybook, ask them to picture folding the circle — would the two sides land on top of each other? If not, try the line through the middle again on a fresh pre-drawn circle.

DIFFERENTIATION

EMERGING

- Give pre-drawn circles with a faint dashed diameter already marked so pupils only trace the fair cut and add the tick.
- Stay at the teacher table for the unfair-cut drawing: model one big-and-tiny cut together, then the pupil copies it and adds the cross.

DEVELOPING

- After the tick-and-cross pair, ask them to draw a second fair half cut the other way (top-to-bottom instead of side-to-side) and check the parts still match.
- On a finished fair half, cover one part and ask: if this shaded part is a half, what must be true about the hidden part?

PROFICIENT

- On copybook, draw a shape that is not a circle, cut it into two matching parts, and write one sentence under it explaining how you know each part is a half.

✂ **Cross-curricular:** Link to SPHE fair-share talk — splitting a class treat so both parts match before anyone eats.

ANSWER KEY

Scaffold: visual check on the page

Q1: Yes

Q2: No

Q3: The two pieces are not equal

a) Always : Matching size means the parts are equal.

b) Never : Halves must be equal in size, not just two pieces.

c) Always : That is the meaning of a half.

d) Sometimes : True when the two pieces are the same size; false when one piece is bigger.

EXTENSION SHEET · STRETCH ANSWERS

S1: no

S2: yes

S3: no

S4: yes