Balance Scales: Heavier, Lighter or Equal

Answer and adult support guide.

Read the pan positions

These are equal-arm balances. A pan holding the greater mass is lower. When the beam is level, the masses are equal. The parcel drawings have the same size so that size is not used as a clue. No grams or kilograms are being read.

1. Parcel A is heavier

A is in the lower pan. Parcel B is lighter, even though both parcels are drawn at the same size.

2. Parcel B is heavier

B is in the lower pan. This reverses the left-right position of the heavier parcel; use the balance rather than the page side.

3. Equal mass

Both pans are at the same height and the beam is level. Neither parcel is heavier.

Final question: parcel B

On balance 1, B is in the higher pan. Ask the learner to explain using the pan positions. Accept pointing and a spoken explanation.