

Which Object Is Heavier?

Elaboration 3 · Comparing mass on balance scales

ELABORATION FOCUS

Using balance scales to compare the mass of objects with a suitable informal unit, and explaining why every unit must have the same mass.

LEARNING INTENTION I can compare mass and say how much heavier.

Balance it

Same unit

Count it

Compare

Say why

1

Balance the Scales

Step 1: put the object in one pan. Step 2: add units until the pans are level.

2

Count the Units

Step 3: count the units you used. Step 4: write the count next to the object.

3

Compare and Explain

Step 5: find how many units heavier. Step 6: say why the units must match.

MODEL · WEIGHING TWO OBJECTS IN BLOCKS

Each object is balanced against the same wooden blocks.

Every block has the same mass

Apple



9 blocks

Pear



6 blocks

The apple is heavier · $9 - 6 = 3$ blocks heavier

The apple is 3 blocks heavier than the pear, because 9 blocks is 3 more than 6.

TEACHER MODELLING ROUTINE I do → We do → You do

WATCH FOR

Mixing heavy and light units, so the counts no longer mean the same thing.

REMEMBER

Say it to students as: "Every unit must weigh the same."

MATERIALS

Balance scales, wooden blocks, marbles, counters, fruit, recording sheets.