

# 3-6: REMOTE MATHS

EDITION 15

## MEASUREMENT AND MASS - INVESTIGATIONS

**Mathematical language:** heft, heavy, heavier, heaviest, light, lighter, lightest, balance, scales, estimate, same, direct comparison, indirect comparison, ordering, standard unit, gram, kilogram.

### TASK 1: FIND TWO THINGS THAT HAVE THE SAME MASS

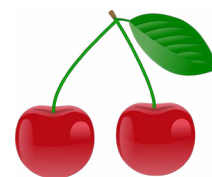
- Go around your house and try to find two objects that weigh about the same
- Find a set of scales in your house – either a kitchen scale or bathroom scale
- Check to see if the two objects weigh the same using the scales
- How close to the same weight were your two objects?

### TASK 2: FIND OBJECTS THAT TOTAL 2.5KG

- Estimate and collect some objects that you think will weigh 2.5 kgs in total
- Test this by weighing each item on the scales
- Record the weight of each item
- Add the weight of each item together to find the total weight
- What could you do if the total is over 2.5 kgs?
- What could you do if the weight is under 2.5 kgs?

### TASK 3: COMPARING AND ORDERING OBJECTS BY MASS

- Collect five pieces of fruit and vegetables
- Estimate which is lightest and which is heaviest
- Put them in order from lightest to heaviest based on your estimate
- Then use some kitchen or bathroom scales to determine if your order is correct
- How close were your estimates?



## EDITION 14: MEASUREMENT AND MASS (CONT.)

### TASK 4: PROBLEM SOLVING TASKS INVOLVING MASS

In these investigations, you and a family member will try to work out the solutions to these mass problems.

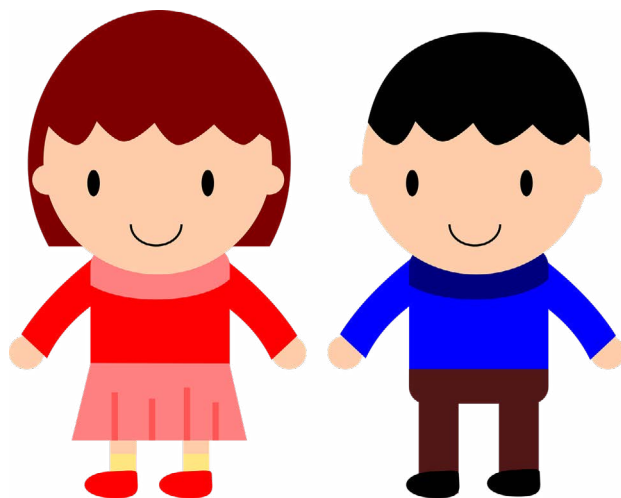
#### PART 1: *Adapted from Nrich*

- Grandma had made pies for a bake sale. She had carefully put equal amounts of mixture in each pie tin and was now trying to find the weight of the pies.
- She had a problem; she only had one 200-gram weight and one 125-gram weight.
- She found that one pie balanced on the scale with both weights and a quarter of a pie.
- How heavy was each pie?



#### PART 2: *Adapted from NAPLAN*

- Rob's scale does not work properly. The mass it shows is 4 kg too heavy.
- Rob's scale shows 77 kg when he stands on it.
- Ella also has a set of scales that does not work properly. The mass it shows is 8 kg too light.
- What will Ella's scale show when Rob stands on it?
- What strategy did you use to work out the answer?



*Look out for more tasks next week!*

