

# Discussion Problems

## Step 1: Kilograms and Kilometres

### National Curriculum Objectives:

Mathematics Year 5: (5M5) [Convert between different units of metric measure \(for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre\)](#)

### About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 5 Converting Units](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Kilograms and Kilometres

1. Ryan is trying to work a route for his journey. He estimates the different lengths of various routes on a map.

Route Lengths	
2.62km	0.95km
$1\frac{1}{5}$ km	2,150m
3,450m	6.11km
0.45km	1,980m
$2\frac{3}{4}$ km	$\frac{1}{2}$ km



Using at least 6 different routes above, explore which combinations he could choose which would add up to less than 10km in total.

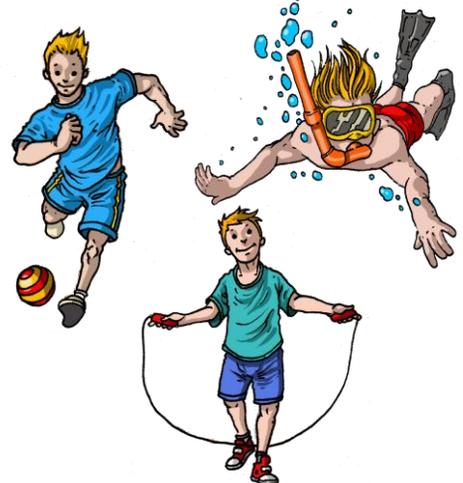
He has chosen to use 5 different routes. What is the longest route he could have chosen?

DP

2. Walter is trying to lose weight for a swimming competition. His current weight is 80.87kg and needs to be between 79kg to 79.5kg.

He has 2 weeks and can do one activity each day but needs to rest at least one day each week.

Activity	Weight Difference
Circuit Training	- 290g
Rowing	- 0.14kg
Skipping	- 180g
Swimming	- A quarter of a kilogram
Football	- $\frac{4}{5}$ of 380g
Running	- 0.23kg
Rest day	+ 410g



What activities could he choose to do? You must use at least 4 different activities for each week?

DP

