Discussion Problems
Step 4: Imperial Units

National Curriculum Objectives:

Mathematics Year 5: (5M6) Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints

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.

Imperial Units

1. A shop orders 3 different flavours of drinks to stock up their fridge. Each flavour comes in a different size bottle and case.

1 pint = 568ml

Daily Delivery

Crazy Cola	$\frac{1}{2}$ pint bottles in a case of 14 bottles
Spanta Sparkle	1 pint bottles in a case of 5 bottles
Purple Poppler	$\frac{3}{4}$ pint bottles in a case of 8 bottles

The shop orders all three flavours for 5 days. They need 15L of each flavour. Investigate the difference between what they received and what they needed.

DP

2. Convert the animals' weights from kg to lbs.

1kg = 2.2lbs


Panda
100kg


Hyena
25kg


Gorilla
160kg


Chimpanzee
60kg

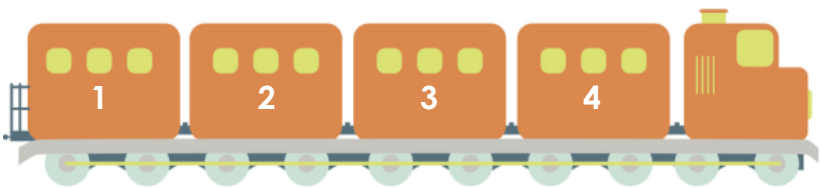

Zebra
350kg


Koala
12kg


Kangaroo
40kg


Grizzly Bear
270kg

The zoo is trying to transport the animals to another zoo. How could the animals be transported given the weight restrictions for each carriage?



Max: 300lb	Max: 600lb	Max: 700lb	Max: 800lb
2 animals	2 animals	3 animals	4 animals

DP

Imperial Units

1. A shop orders 3 different flavours of drinks to stock up their fridge. Each flavour comes in a different size bottle and case.

1 pint = 568ml

Daily Delivery

Crazy Cola	$\frac{1}{2}$ pint bottles in a case of 14 bottles
Spanta Sparkle	1 pint bottles in a case of 5 bottles
Purple Poppler	$\frac{3}{4}$ pint bottles in a case of 8 bottles

The shop orders all three flavours for 5 days. They need 15L of each flavour. Investigate the difference between what they received and what they needed.

Crazy Cola: 19,880ml (19.88L). 4,880ml (4.88L) too much.
Spanta Sparkle: 14,200ml (14.2L). 800ml (0.8L) too little.
Purple Poppler: 17,040ml (17.04L). 2,040ml (2.04L) too much.

DP

2. Convert the animals' weights from kg to lbs.

1kg = 2.2lbs


Panda
100kg
= 220lb


Hyena
25kg
= 55lb


Gorilla
160kg
= 352lb


Chimpanzee
60kg
= 132lb

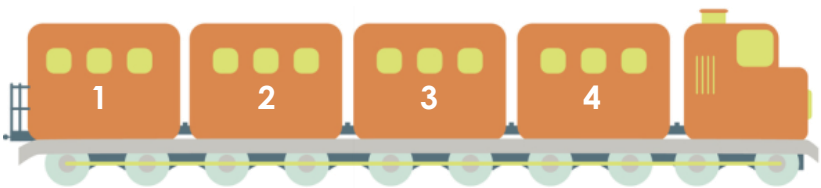

Zebra
350kg
= 770lb


Koala
12kg
= 26.4lb


Kangaroo
40kg
= 88lb


Grizzly Bear
270kg
= 594lb

The zoo is trying to transport the animals to another zoo. How could the animals be transported given the weight restrictions for each carriage?



1	2	3	4
Max: 300lb 2 animals	Max: 600lb 2 animals	Max: 700lb 3 animals	Max: 800lb 4 animals

Various possible answers, for example:

1 = Panda, Hyena **2 = Gorilla, Chimpanzee**

3 = Grizzly Bear, Kangaroo **4 = Zebra, Koala**

DP