K ey I nstant R ecall F acts

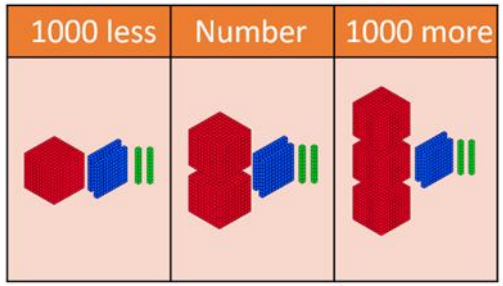
Year 5 – Medium Term Plan

Focus 1	Focus 2	Focus 3	Focus 4	Focus 5	Focus 6
Find 100 & 1000 more or less than a given number	Square numbers up to 12x & cube numbers up to 5x	Multiply & divide integers and decimals by 10,100 & 1000	Converting fractions, decimals and percentages	Convert between different units of metric measures	Doubles of multiples of 10 & 100 & corresponding halves

KIRF Key Instant Recall Facts — Find 100 & 1000 more or less than a given number

Year 5 - Focus 1

What does this look like?



Concrete Representation

Pictorial Representation

553 + 100 = 653

998 – 100 = 898

1000 + 84 = 1084

Abstract Representation

What to do at home

What's my number: Pick a number between 100 and 1000 and ask:

"What is 100 more than my number?" or "What is 100 less than my number?"

Key Vocabulary

520 **add** 100 equals 620

837 **take away** 100 equals 737

1000 **more than** 45 is 1045

100 **less than** 670 is 570

KIRF Key Instant Recall Facts — Square numbers up to 12x & cube numbers up to 5x

Year 5 - Focus 2

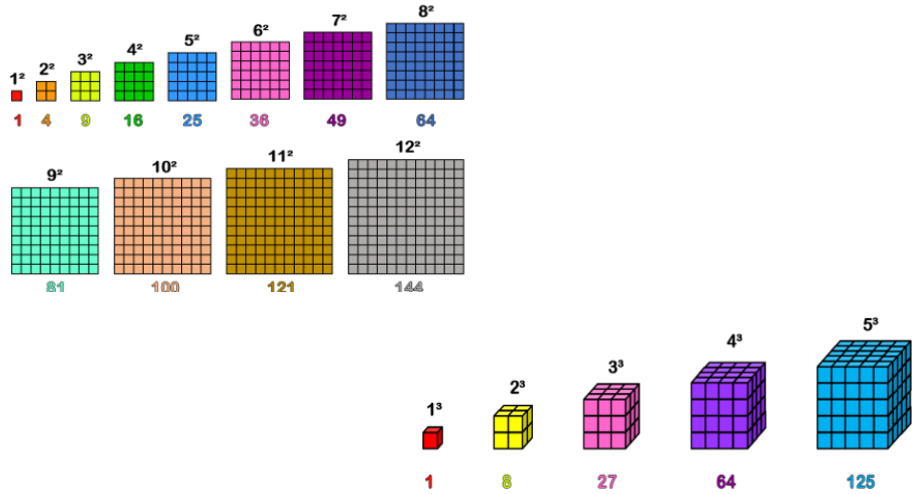
Learn these facts off by heart

$1^2 = 1$
$2^2 = 4$
$3^2 = 9$
$4^2 = 16$
$5^2 = 25$
$6^2 = 36$
$7^2 = 49$
$8^2 = 64$
$9^2 = 81$
$10^2 = 100$

$11^2 = 121$
$12^2 = 144$

Cube root	Notation	Calculation	Cube number
1	1^3	1 x 1 x 1	1
2	2^3	2 x 2 x 2	8
3	3^3	3 x 3 x 3	27
4	4^3	4 x 4 x 4	64
5	5^3	5 x 5 x 5	125

What does this look like?



What to do at home

Chanting: Say a number between 1 and 12, and others race to shout the square of that number. Make it competitive or play in teams.

Guess My Number! Call out a square number – for example, 144 – and pupils must guess which number you squared.

Websites: Times Tables Rock Stars and Timestables.co.uk

Key Vocabulary

3 **squared** is 9

5 **cubed** is 125

3 x 3 is **equivalent to** 3^2

3 x 3 x 3 is **equivalent to** 3^3

What is 6^2?

What is 4^3?

What is 2 x 2 x 2 = ?

KIRF Key Instant Recall Facts — Multiply & divide integers and decimals by 10,100 & 1000

Year 5 - Focus 3

What does this look like?

🔢 Multiplying by 10, 100 or 1000

👉 Move digits to the left

👉 One place for each zero

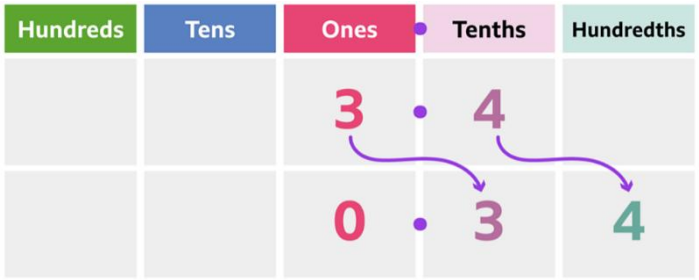
- ×10 → move digits **1 place left**
- ×100 → move digits **2 places left**
- ×1000 → move digits **3 places left**

➗ Dividing by 10, 100 or 1000

👉 Move digits to the right

👉 One place for each zero

- ÷10 → move digits **1 place right**
- ÷100 → move digits **2 places right**
- ÷1000 → move digits **3 places right**



3.4 divided by 10 = 0.34

What to do at home

Dice Game: You'll need: Two dice (or use an online dice roller)
How to play:

1. Roll two dice to create a two-digit number (e.g., 4 and 6 = 46).
2. Take turns multiplying the number by 10, 100 or 1000.
   E.g. "46 × 1000 = 46000".

Adapt the game by:

1. Roll two dice to create a decimal number (e.g., 3 and 2 = 3.2).
2. Take turns multiplying the number by 10, 100 or 1000.
   E.g. "3.2 × 1000 = 3200".

Key Vocabulary

7 **multiplied** by 1000 is equal to 7000

1200 **shared by** 100 is equal to 12

5000 **divided by** 100 equals 50

What is 0.56 **multiplied** by 1000?

What is 100 **times** 2.7?

What is 700 **divided by** 1000?

KIRF Key Instant Recall Facts — Converting fractions, decimals and percentages

Year 5 - Focus 4

Learn these facts off by heart

0.25 = 25% = $\frac{1}{4}$

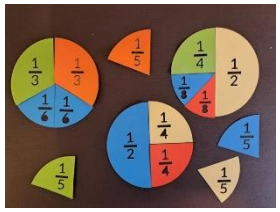
0.2 = 20% = $\frac{1}{5}$

0.5 = 50% = $\frac{1}{2}$

0.1 = 10% = $\frac{1}{10}$

1 = 100% = $\frac{1}{1}$

What does this look like?



Concrete Representation

Hundred Square	Fractions	Decimals	Percentages
	1/2	0.5	50%
	1/4	0.25	25%
	1/10	0.1	10%
	1/100	0.01	1%

Pictorial Representation

Abstract Representation

What to do at home

Decimal, Fraction & Percentage Snap!

You'll need:

- Decimal cards: 0.25, 0.5, 0.75
- Fraction cards: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- Percentage cards: 25%, 50%, 75%

How to Play: Shuffle all the cards together. Deal all cards equally between players. Players take turns flipping one card at a time into a shared pile. If two or more cards in the pile show equivalent values (e.g. 0.25, $\frac{1}{4}$, 25%), the first to shout "SNAP!" wins the whole pile. The player with the most cards at the end wins!

Key Vocabulary

0.1 is **equivalent** to **one tenth** or **10%**

0.01 is **equivalent** to **one hundredth** or **1%**

0.25 is **equivalent** to **one quarter** or **25%**

0.5 is **equivalent** to **one half** or **50%**

KIRF — Convert between different units of metric measures

Year 5 - Focus 5

Learn these facts off by heart

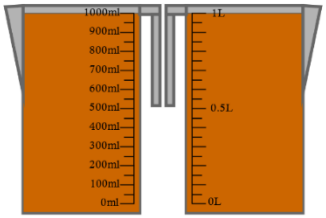
1 KG = 1000g

1 L = 1000ml

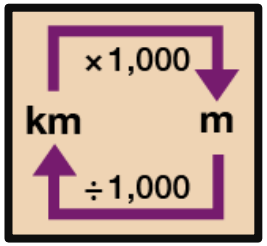
1m = 100cm

1 cm = 10mm

What does this look like?



Pictorial Representation



Abstract Representation

What to do at home

Measure up: measure the length, mass and volume of different items in your home. Show the measurements in different units of measures.

Ready steady cook: help out in the kitchen to follow a recipe. Can you convert the units of measures?

Key Vocabulary

Measure	Metric Units
Length	millimetres (mm) centimetres (cm) metres (m) kilometres (km)
Weight	grams (g) kilograms (kg)
Capacity	millilitres (ml) litres (L)

KIRF Key Instant Recall Facts

Doubles of multiples of 10 & 100 & corresponding halves

Year 5 - Focus 6

Learn these facts off by heart

ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN	EIGHT	NINE	TEN	ELEVEN	TWELVE
1 x 1 = 1	2 x 1 = 2	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5	6 x 1 = 6	7 x 1 = 7	8 x 1 = 8	9 x 1 = 9	10 x 1 = 10	11 x 1 = 11	12 x 1 = 12
1 x 2 = 2	2 x 2 = 4	3 x 2 = 6	4 x 2 = 8	5 x 2 = 10	6 x 2 = 12	7 x 2 = 14	8 x 2 = 16	9 x 2 = 18	10 x 2 = 20	11 x 2 = 22	12 x 2 = 24
1 x 3 = 3	2 x 3 = 6	3 x 3 = 9	4 x 3 = 12	5 x 3 = 15	6 x 3 = 18	7 x 3 = 21	8 x 3 = 24	9 x 3 = 27	10 x 3 = 30	11 x 3 = 33	12 x 3 = 36
1 x 4 = 4	2 x 4 = 8	3 x 4 = 12	4 x 4 = 16	5 x 4 = 20	6 x 4 = 24	7 x 4 = 28	8 x 4 = 32	9 x 4 = 36	10 x 4 = 40	11 x 4 = 44	12 x 4 = 48
1 x 5 = 5	2 x 5 = 10	3 x 5 = 15	4 x 5 = 20	5 x 5 = 25	6 x 5 = 30	7 x 5 = 35	8 x 5 = 40	9 x 5 = 45	10 x 5 = 50	11 x 5 = 55	12 x 5 = 60
1 x 6 = 6	2 x 6 = 12	3 x 6 = 18	4 x 6 = 24	5 x 6 = 30	6 x 6 = 36	7 x 6 = 42	8 x 6 = 48	9 x 6 = 54	10 x 6 = 60	11 x 6 = 66	12 x 6 = 72
1 x 7 = 7	2 x 7 = 14	3 x 7 = 21	4 x 7 = 28	5 x 7 = 35	6 x 7 = 42	7 x 7 = 49	8 x 7 = 56	9 x 7 = 63	10 x 7 = 70	11 x 7 = 77	12 x 7 = 84
1 x 8 = 8	2 x 8 = 16	3 x 8 = 24	4 x 8 = 32	5 x 8 = 40	6 x 8 = 48	7 x 8 = 56	8 x 8 = 64	9 x 8 = 72	10 x 8 = 80	11 x 8 = 88	12 x 8 = 96
1 x 9 = 9	2 x 9 = 18	3 x 9 = 27	4 x 9 = 36	5 x 9 = 45	6 x 9 = 54	7 x 9 = 63	8 x 9 = 72	9 x 9 = 81	10 x 9 = 90	11 x 9 = 99	12 x 9 = 108
1 x 10 = 10	2 x 10 = 20	3 x 10 = 30	4 x 10 = 40	5 x 10 = 50	6 x 10 = 60	7 x 10 = 70	8 x 10 = 80	9 x 10 = 90	10 x 10 = 100	11 x 10 = 110	12 x 10 = 120
1 x 11 = 11	2 x 11 = 22	3 x 11 = 33	4 x 11 = 44	5 x 11 = 55	6 x 11 = 66	7 x 11 = 77	8 x 11 = 88	9 x 11 = 99	10 x 11 = 110	11 x 11 = 121	12 x 11 = 132
1 x 12 = 12	2 x 12 = 24	3 x 12 = 36	4 x 12 = 48	5 x 12 = 60	6 x 12 = 72	7 x 12 = 84	8 x 12 = 96	9 x 12 = 108	10 x 12 = 120	11 x 12 = 132	12 x 12 = 144

What to do at home

What's my number: Call out a multiple of 10 or 100, and others race to shout double or halve that number. Make it competitive or play in teams.

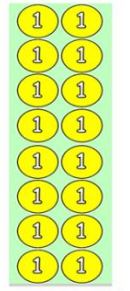
Websites: Times Tables Rock Stars and Timestables.co.uk

Key Vocabulary

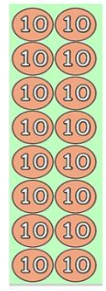
8 **multiplied by** 12 is **equal to** 2 **multiplied by** 48

What does this look like?

80 x 2 = ?



8 x 2 =16



80 x 2 = ?

We can calculate 80 x 2 using the multiplication tables fact 8 x 2 = 16 and place value.

80 x 2 = 8 x 10 x 2

80 x 2 = 16 x 10

80 x 2 = ?