I know number bonds to 100.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

Some examples:

- \( 60 + 40 = 100 \)
- \( 40 + 60 = 100 \)
- \( 100 - 40 = 60 \)
- \( 100 - 60 = 40 \)
- \( 75 + 25 = 100 \)
- \( 25 + 75 = 100 \)
- \( 100 - 25 = 75 \)
- \( 100 - 75 = 25 \)
- \( 37 + 63 = 100 \)
- \( 63 + 37 = 100 \)
- \( 100 - 63 = 37 \)
- \( 100 - 37 = 63 \)
- \( 48 + 52 = 100 \)
- \( 52 + 48 = 100 \)
- \( 100 - 52 = 48 \)
- \( 100 - 48 = 52 \)

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. \( 49 + \square = 100 \) or \( 100 - \square = 72 \).

**Top Tips**

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

**Fact families** - If your child knows one fact (e.g. \( 8 + 5 = 13 \)), can they tell you the other three facts in the same fact family?

**Use number bonds to 10** - How can number bonds to 10 help you work out number bonds to 100?

**Play games** – There are missing number questions at [www.conkermaths.com](http://www.conkermaths.com). See how many questions you can answer in just 90 seconds. There is also a number bond pair game to play.
I can recall facts about durations of time.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

- There are 60 seconds in a minute.
- There are 60 minutes in an hour.
- There are 24 hours in a day.
- There are 7 days in a week.
- There are 12 months in a year.
- There are 365 days in a year.
- There are 366 days in a leap year.

Children also need to know the order of the months in a year. They should be able to apply these facts to answer questions, such as:

- What day comes after 30\textsuperscript{th} April?
- What day comes before 1\textsuperscript{st} February?

**Top Tips**

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

Use rhymes and memory games – The rhyme, *Thirty days hath September*, can help children remember which months have 30 days. There are poems describing the months of the year in order.

Use calendars – If you have a calendar for the new year, your child could be responsible for recording the birthdays of friends and family members in it. Your child could even make their own calendar.

How long is a minute? – Ask your child to sit with their eyes closed for exactly one minute while you time them. Can they guess the length of a minute? Carry out different activities for one minute. How many times can they jump in sixty seconds?
Key Instant Recall Facts

Year 6 – 6C

I can tell the time.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

Children need to be able to tell the time using a clock with hands. This target can be broken down into several steps.

- I can tell the time to the nearest hour.
- I can tell the time to the nearest half hour.
- I can tell the time to the nearest quarter hour.
- I can tell the time to the nearest five minutes.
- I can tell the time to the nearest minute.

Key Vocabulary

Twelve o’clock
Half past two
Quarter past three
Quarter to nine
Five past one
Twenty-five to ten

Top Tips

The secret to success is practising little and often. Use time wisely.

Talk about time - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands. Once your child is confident telling the time, see if you can find more challenging clocks e.g. with Roman numerals or no numbers marked.

Ask your child the time regularly – You could also give your child some responsibility for watching the clock:
“The cakes need to come out of the oven at twenty-two minutes past four exactly.”
“We need to leave the house at twenty-five to nine.”
I can recognise decimal equivalents of fractions.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>½</td>
<td>0.5</td>
</tr>
<tr>
<td>¼</td>
<td>0.25</td>
</tr>
<tr>
<td>⅓</td>
<td>0.333</td>
</tr>
<tr>
<td>⅔</td>
<td>0.666</td>
</tr>
<tr>
<td>⅘</td>
<td>0.8</td>
</tr>
<tr>
<td>⅚</td>
<td>0.75</td>
</tr>
<tr>
<td>⅚</td>
<td>0.666</td>
</tr>
<tr>
<td>⅞</td>
<td>0.875</td>
</tr>
<tr>
<td>⅚</td>
<td>0.75</td>
</tr>
<tr>
<td>⅞</td>
<td>0.888</td>
</tr>
<tr>
<td>⅚</td>
<td>0.666</td>
</tr>
</tbody>
</table>

Key Vocabulary

How many tenths is 0.8?
How many hundredths is 0.12?
Write 0.75 as a fraction?
Write ¼ as a decimal?

Children should be able to convert between decimals and fractions for ½, ¼, ⅓ and any number of tenths and hundredths.

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: start with tenths before moving on to hundredths.

Play games - Make some cards with pairs of equivalent fractions and decimals. Use these to play the memory game or snap. Or make your own dominoes with fractions on one side and decimals on the other.
Key Instant Recall Facts

Year 6 – 6E

I know decimal number bonds to 1 and 10.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

Some examples:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6 + 0.4 = 1</td>
<td>3.7 + 6.3 = 10</td>
</tr>
<tr>
<td>0.4 + 0.6 = 1</td>
<td>6.3 + 3.7 = 10</td>
</tr>
<tr>
<td>1 − 0.4 = 0.6</td>
<td>10 − 6.3 = 3.7</td>
</tr>
<tr>
<td>1 − 0.6 = 0.4</td>
<td>10 − 3.7 = 6.3</td>
</tr>
<tr>
<td>0.75 + 0.25 = 1</td>
<td>4.8 + 5.2 = 10</td>
</tr>
<tr>
<td>0.25 + 0.75 = 1</td>
<td>5.2 + 4.8 = 10</td>
</tr>
<tr>
<td>1 − 0.25 = 0.75</td>
<td>10 − 5.2 = 4.8</td>
</tr>
<tr>
<td>1 − 0.75 = 0.25</td>
<td>10 − 4.8 = 5.2</td>
</tr>
</tbody>
</table>

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. 0.49 + □ = 10 or 7.2 + □ = 10.

Key Vocabulary

- What do I add to 0.8 to make 1?
- What is 1 take away 0.06?
- What is 1.3 less than 10?
- How many more than 9.8 is 10?
- What is the difference between 0.92 and 10?

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

Fact families- If your child knows one fact (e.g. 8 + 5 = 13), can they tell you the other three facts in the same fact family?

Use number bonds to 10 - How can number bonds to 10 help you work out number bonds to 100?

Play games – There are missing number questions at www.conkermaths.com. See how many questions you can answer in just 90 seconds. There is also a number bond pair game to play.
Key Instant Recall Facts

Year 6 – 6J

I know the multiplication and division facts for all times tables up to 12 × 12.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

Please see separate sheet for all times table facts.

This is a chance for Year 6 children to consolidate their knowledge of multiplication and division facts and to increase their speed of recall.

They should be able to answer these questions in any order, including missing number questions e.g. 7 × ⃝ = 28 or ⃝ ÷ 6 = 7.

Children who have already mastered their times tables should apply this knowledge to answer questions including decimals e.g. 0.7 × ⃝ = 4.2 or ⃝ ÷ 60 = 0.7

Key Vocabulary
- What is 12 multiplied by 6?
- What is 7 times 8?
- What is 84 divided by 7?

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact family of the day.

Speed Challenge – Take two packs of playing cards and remove the kings. Turn over two cards and ask your child to multiply the numbers together (Ace = 1, Jack = 11, Queen = 12). How many questions can they answer correctly in 2 minutes? Practise regularly and see if they can beat their high score.

Online games – There are many games online which can help children practise their multiplication and division facts. www.conkermaths.org is a good place to start.

Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.
I can recall metric conversions.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

- 1 kilogram = 1000 grams
- 1 kilometre = 1000 metres
- 1 metre = 100 centimetres
- 1 metre = 1000 millimetres
- 1 centimetre = 10 millimetres
- 1 litre = 1000 millilitres

They should also be able to apply these facts to answer questions.

e.g. How many metres in 1½ km?

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

Look at the prefixes – Can your child work out the meanings of kilo-, centi- and milli-?

What other words begin with these prefixes?

Be practical – Do some baking and convert the measurements in the recipe.

How far? – Calculate some distances using unusual measurements. How tall is your child in mm? How far away is London in metres?
Key Instant Recall Facts

Year 6 – 6L

I can recall square numbers up to $12^2$ and their square roots.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

<table>
<thead>
<tr>
<th>Square Number</th>
<th>Calculation</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1^2$</td>
<td>$1 \times 1$</td>
<td>1</td>
</tr>
<tr>
<td>$2^2$</td>
<td>$2 \times 2$</td>
<td>4</td>
</tr>
<tr>
<td>$3^2$</td>
<td>$3 \times 3$</td>
<td>9</td>
</tr>
<tr>
<td>$4^2$</td>
<td>$4 \times 4$</td>
<td>16</td>
</tr>
<tr>
<td>$5^2$</td>
<td>$5 \times 5$</td>
<td>25</td>
</tr>
<tr>
<td>$6^2$</td>
<td>$6 \times 6$</td>
<td>36</td>
</tr>
<tr>
<td>$7^2$</td>
<td>$7 \times 7$</td>
<td>49</td>
</tr>
<tr>
<td>$8^2$</td>
<td>$8 \times 8$</td>
<td>64</td>
</tr>
<tr>
<td>$9^2$</td>
<td>$9 \times 9$</td>
<td>81</td>
</tr>
<tr>
<td>$10^2$</td>
<td>$10 \times 10$</td>
<td>100</td>
</tr>
<tr>
<td>$11^2$</td>
<td>$11 \times 11$</td>
<td>121</td>
</tr>
<tr>
<td>$12^2$</td>
<td>$12 \times 12$</td>
<td>144</td>
</tr>
</tbody>
</table>

Children should also be able to recognise whether a number below 150 is a square number or not.

**Key Vocabulary**
- What is $8$ squared?
- What is $7$ multiplied by itself?
- What is the square root of $144$?
- Is $81$ a square number?

**Top Tips**

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

**Cycling Squares** – At [http://nrich.maths.org/1151](http://nrich.maths.org/1151) there is a challenge involving square numbers. Can you complete the challenge and then create your own examples?

**Use memory tricks** – For those hard-to-remember facts, [www.multiplication.com](http://www.multiplication.com) has some strange picture stories to help children remember.
I can identify prime numbers up to 50.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

A prime number is a number with no factors other than itself and one.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19, 23,
27, 29, 31, 37, 41, 43, 47

A composite number is divisible by a number other than 1 or itself.

The following numbers are composite numbers:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20,
22, 24, 25, 26, 27, 28, 30, 32, 34, 35, 36,
38, 39, 40, 42, 44, 45, 46, 48, 49, 50

Children should be able to explain how they know that a number is composite.

E.g. 39 is composite because it is a multiple of 3 and 13.

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: perhaps you could have a fact of the day.

It’s really important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 50. How many correct statements can your child make about this number using the vocabulary above?

Make a set of cards for the numbers from 2 to 50. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers?
I can identify common factors of a pair of numbers.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

*The factors of a number are all numbers which divide it with no remainder.*

E.g. the factors of 24 are 1, 2, 3, 4, 6, 8, 12, and 24. The factors of 56 are 1, 2, 4, 7, 8, 14, 28 and 56.

*The common factors of two numbers are the factors they share.*

E.g. the common factors of 24 and 56 are 1, 2, 4 and 8.

*The greatest common factor of 24 and 56 is 8.*

Children should be able to explain how they know that a number is a common factor.

E.g. 8 is a common factor of 24 and 56 because 24 = 8 × 3 and 56 = 8 × 7.

**Top Tips**

The secret to success is practising *little* and *often*. Use time wisely. Can you practise these key facts while walking to school or during a car journey? If your child is not yet confident with identifying factor pairs of a number, you may want to refer to the Year 5 Summer 2 sheet to practise this first.

There are many online games to practise finding the greatest common factor, for example: http://www.fun4thebrain.com/beyondfacts/gcfsketch.html

Choose two numbers. Take it in turns to name factors. Who can find the most?
Key Instant Recall Facts

Year 6 – 6O

I can convert between decimals, fractions and percentages.

Children in Year 6 should know the following facts. The aim is for them to recall these facts instantly.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>0.5</td>
<td>50%</td>
</tr>
<tr>
<td>1/3</td>
<td>0.33</td>
<td>33.33%</td>
</tr>
<tr>
<td>1/4</td>
<td>0.25</td>
<td>25%</td>
</tr>
<tr>
<td>1/5</td>
<td>0.2</td>
<td>20%</td>
</tr>
<tr>
<td>1/10</td>
<td>0.1</td>
<td>10%</td>
</tr>
<tr>
<td>1/20</td>
<td>0.05</td>
<td>5%</td>
</tr>
<tr>
<td>4/10</td>
<td>0.4</td>
<td>40%</td>
</tr>
<tr>
<td>6/10</td>
<td>0.6</td>
<td>60%</td>
</tr>
<tr>
<td>7/10</td>
<td>0.7</td>
<td>70%</td>
</tr>
<tr>
<td>8/10</td>
<td>0.8</td>
<td>80%</td>
</tr>
<tr>
<td>9/10</td>
<td>0.9</td>
<td>90%</td>
</tr>
</tbody>
</table>

Key Vocabulary

How many tenths is 0.8?
How many hundredths is 0.12?
Write 0.75 as a fraction?
Write ¼ as a decimal?

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these key facts while walking to school or during a car journey? You don’t need to practise them all at once: start with tenths before moving on to hundredths.

Play games - Make some cards with pairs of equivalent fractions and decimals. Use these to play the memory game or snap. Or make your own dominoes with fractions on one side and decimals on the other.