**I know number bonds to 20.**

By the end of this half term, children should know the facts in the first 3 columns below. The aim is for them to recall these facts **instantly.** They should also be able to work out other number facts within 20 like the ones shown in the final column.

| | | | |
|---|---|---|---|
| 0 + 20 = 20 | 16 + 4 = 20 | 20 – 6 = 14 | 3 + 11 = 14 |
| 1 + 19 = 20 | 15 + 5 = 20 | 20 – 7 = 13 | 11 + 3 = 14 |
| 2 + 18 = 20 | 14 + 6 = 20 | 20 – 8 = 12 | 14 – 11 = 3 |
| 3 + 17 = 20 | 13 + 7 = 20 | 20 – 9 = 11 | 14 – 3 = 11 |
| 4 + 16 = 20 | 12 + 8 = 20 | 20 – 10 = 10 | 11 = 14 - 3 |
| 5 + 15 = 20 | 11 + 9 = 20 | 20 – 20 = 0 | 3 = 14 – 11 |
| 6 + 14 = 20 | 20 – 0 = 20 | 20 – 19 = 1 | |
| 7 + 13 = 20 | 20 – 1 = 19 | 20 – 18 = 2 | 6 + 13 = 19 |
| 8 + 12 = 20 | 20 – 2 = 18 | 20 – 17 = 3 | 13 + 6 = 19 |
| 9 + 11 = 20 | 20 – 3 = 17 | 20 – 16 = 4 | 19 – 6 = 13 |
| 10 + 10 = 20 | 20 – 4 = 16 | 20 – 15 = 5 | 19 – 13 = 6 |
| 20 + 0 = 20 | 20 – 5 = 15 | 20 – 14 = 6 | 13 = 19 – 6 |
| 19 + 1 = 20 | | 20 – 13 = 7 | 6 = 19 - 13 |
| 18 + 2 = 20 | | 20 – 12 = 8 | |
| 17 + 3 = 20 | | 20 – 11 = 9 | |

**Key Vocabulary**

What do I **add** to 5 to make 20?

What is 20 **take away** 6?

What is 3 **less than** 20?

**How many more** than 16 is 20?

What is 15 **take away** 7?

**How many more** than 11 is 19?

They should be able to answer these questions in any order, including missing number questions e.g. 17 + ◯ = 20 or 20 - ◯ = 12. Given a number fact such as: 5 + 12 = 17, they should be able to give related facts e.g. 12 + 5 = 17, 17 – 5 = 12, 5 = 17 – 12 etc.

## Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these KIRFs 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. If you would like more ideas, please speak to your child's teacher.

Use what you already know – Use number bonds to 10 (e.g. 6 + 4 = 10) to work out related number bonds to 20 (e.g. 16 + 4 = 20).

Use practical resources – Make collections of 20 objects. Ask questions such as, "How many more conkers would I need to make 20?"

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making 20.

Play games – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.