

Double numbers to 20

National Curriculum attainment target

- Solve problems with addition and subtraction: applying their increasing knowledge of mental methods

Lesson objective

- Double numbers to 20

Previous related lessons

None

Prerequisites for learning

Pupils need to:

- recall doubles facts for numbers 1–10
- confidently identify tens and ones in two-digit numbers
- distinguish odd and even numbers

Vocabulary

double, add, addition, plus, times, multiplied by, equals, twice

Future related lessons

Unit 11, Week 1, Lessons 2 & 4; Unit 11, Week 2, Lessons 3 & 4

Success criteria

Pupils can:

- relate addition and multiplication to doubles
- use doubles facts for numbers 1–10 to work out doubles facts for numbers 11–20
- use the fact that all doubles are even numbers to check their work



Getting Started

- Choose an activity from Number – Addition and subtraction.
- Choose a game or activity from *Fluency in Number Facts: Y1/Y2 – Addition and subtraction*.

Collins
Connect

Year 2, Unit 5,
Week 2

Teach

Resources

0–9 number fan (per child); mini whiteboard, pen and eraser (per pair)



1



2



3–10

11



13–14

- Say: **Today we are going to be doubling numbers to 20.**
- Ask: **What does the word 'double' mean?** (twice as much) Ask: **What calculations could we do to work out double four?** ($4 + 4$, 4×2 or 2×4)
- Display: Slide 1 and say: **Here is one eye.** Give each child a number fan to show their answers and ask: **What is double one?** (2) Click to reveal two eyes and the number 2.
- Ask: **What addition and multiplication number sentences could we write to show double one?** ($1 + 1 = 2$, $1 \times 2 = 2$, $2 \times 1 = 2$) Write the number sentences on the board.
- Display: Slide 2 and say: **Here are two wheels.** Ask: **What is double two?** (4) Click to reveal a second bicycle giving a total of four wheels.
- Ask: **What addition and multiplication number sentences could we write to show double two?** ($2 + 2 = 4$, $2 \times 2 = 4$) Write the number sentences on the board.
- Display: Slides 3–10. Repeat for each number up to and including ten.
- Say: **Now we are going to use the doubles facts we know for numbers to ten to help us work out and learn doubles facts for numbers from 11 to 20.**
- Display: Slide 11. Ask: **How could you use doubles facts for one to ten to help you work out double 11?**
- Say: **We could double the ten and then double the one.** Click to reveal the doubling. Say: **Double ten equals 20. Double one equals two. Add the two answers together to give a total of 22. Double 11 is 22.**
- Display: Slide 12. Say: **Use this method to work out the answer to double 12 on your whiteboards.** Invite children to share their work with the rest of the class. Agree the correct answer, using Slide 12 to demonstrate.
- Repeat for double 13 and 14, using Slides 13 and 14.



- Say: **Now use the same method for calculating the answer to double 15 on your whiteboards.**
- Ask: **What difference is there compared to doubling 11, 12, 13 or 14?** (double five makes ten rather than a one-digit number) Invite children to share their work with the rest of the class. Agree the correct answer, using Slide 15 to demonstrate.
- Repeat for double 16, 17, 18, 19 and 20 using Slides 16 to 20.
- Display: Slide 21 to show all doubles for numbers 1–20. Ask: **What do you notice about each of the doubles?** (they are all even numbers because they end in 0, 2, 4, 6 or 8) If necessary, prompt children to look carefully at the number of ones in the doubles. Emphasise that doubling always results in an even number and that this information can be used to check answers.

Individualised Learning

Refer to Activity 3 from the Learning activities on page 237.

Activity Book 2B: – Page 8: Double up

Progress Guide 2: – Support, Year 2, Unit 5, Week 2, Lesson 3:
Ladybird doubles

Plenary

Resources

mini whiteboard, pen and eraser (per pair)



- Say: **I am going to ask you to double a number between one and 20. I would like you to work in pairs to write one addition and one multiplication number sentence to calculate the answer.**
- Ask: **What is double six? What addition and multiplication could you do to work out the answer?** Say: **Write your number sentences and answers on your whiteboards.**
- Check children's answers and take the opportunity to identify and tackle any remaining misconceptions.
- Repeat for other numbers from one to 20, quickening the pace to encourage children to develop rapid recall of doubles to 20.