

Six-digit ordering

National Curriculum attainment target

- Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit

Lesson objective

- Read, write, order and compare numbers to 1 000 000 and determine the value of each digit

Previous related lessons

Unit 1, Week 1, Lesson 1; Unit 1, Week 1, Lesson 2;
Unit 5, Week 1, Lesson 1

Prerequisites for learning

Pupils need to:

- understand that numbers extend beyond 10 000
- understand the place value of five-digit numbers

Vocabulary

place value, digit, hundred thousands, ten thousands,
thousands, hundreds, tens, ones (units)

Future related lessons

None

Success criteria

Pupils can:

- identify the thousands digits and their value
- identify the hundreds, tens and ones digits and their value
- use the value of the digits to order the numbers



Getting Started

- Choose an activity from Number – Number and place value
- Choose a game or activity from *Fluency in Number Facts Y5/Y6*: – Number and place value.

Teach

Resources

mini whiteboard, pen and eraser (per child)

**Collins
Connect**
Year 5, Unit 9,
Week 1



- Display: the Place Value tool showing the numbers 600 000, 50 000, 2000, 800, 50, 6.
- Ask: **What number will be made when the thousands, hundreds, tens and ones are put together?** Ask a pair to share their number. Repeat for a few more numbers.
- Ask: **What do we need to do when we order six-digit numbers?** Ask a pair to share their ideas. Ask other pairs to contribute. Establish that the most significant digit – the hundred thousands digit – is the one to look at first. Then the ten thousands, thousands, hundreds, tens, and ones, in that order.
- Display: the Number Card tool showing cards for 56 872, 365 712, 366 742, and 365 743. Read the numbers as a class. Point to the digits as children say the numbers.
- Write on the board: the numbers 1–8 with space around them for the Number cards to be dragged and dropped beside them.
- Say: **Put these numbers in order, smallest to largest.**
- Drag the numbers in order from smallest to largest as a class, asking different pairs to explain where each number should go.
- Display: the Number Card tool showing cards for 516 076, 515 265, 516 706, and 515 356. Read the numbers as a class.
- Say: **Put these numbers in order from smallest to largest.**
- Ask a child to share their order, and as they do order the numbers on the board. The rest of the class should check their order as you do this.
- Say: **We are going to use our knowledge of ordering six-digit numbers to work out an ordering problem.**
- Display: the Number Card tool showing the following cards but only generating one at a time: 256 872, 853 450, 570 133, 907 533, 101 500, 472 399, 987 422, and 466 904. Say: **We need to put some numbers in order on this list, smallest to largest. The problem is we only see the numbers one-at-a-time and we do not know what the other numbers will be. Once we have put a number on the list, it cannot be moved.**



- Write on the board: the numbers 1–8 with space around them for the Number cards to be dragged and dropped beside them.
- Show the first number. Ask: **Where shall we put this number on our list?** Ask some pairs to share their ideas. Ask them to clearly explain their reasons. Decide as a class where to put the number.
- Show the next number. Ask: **Where do you think this number should go?** Ask some children to explain where and why they think it should be placed.
- Repeat with the other numbers. If a number cannot be put in order, then put it by the side of the list.
- When all the numbers are ordered, look at how many the class have managed to get in order.
- Ask: **Did we make good decisions, or should we have made a different choice about any of the numbers?**

Individualised Learning

Refer to Activity 1 from the Learning activities on page 352.

Pupil Book 5C: – Page 4: Six-digit ordering

Resource 43: Guess the order, two small pieces of paper (per child)

Progress Guide 5: – Extension, Year 5, Unit 9, Week 1, Lesson 1: Six-digit puzzle

Plenary

Resources

6 mini white boards, pens and erasers (per class)



- Ask: **Did your ordering improve? What did you need to think about to be successful?** Discuss this as a class, asking different pairs to share their ideas.
- Ask six children to come to the front of the class. Tell them to secretly write a six-digit number on a mini whiteboard.
- Ask the first child to show their number. Ask: **Do you think the next number will be higher or lower? If you think higher, put your hands on your heads. If you think lower, put your hands behind your back.**
- Tell the child to show the number. Repeat until all the numbers have been shown.



Homework Guide 5

Year 5, Unit 9, Week 1, Lesson 1: Ordering challenge

Resources: paper clip and pencil (per child)

Overcoming Barriers

- Children will find six-digit numbers challenging if they are not really secure with five-digit numbers. Focus on five-digit numbers and the place value of each digit.