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

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 10000
- understand the place value of five-digit numbers **Vocabulary**

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

Lesson objective

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

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



Collins Connect

Year 5, Unit 9, Week 1

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

h II.

●₩●

b III.

mini whiteboard, pen and eraser (per child)

- 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 56872, 365712, 366742, and 365743. 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 516076, 515265, 516706, 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: 256872, 853450, 570133, 907533, 101500, 472399, 987422, and 466904. 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

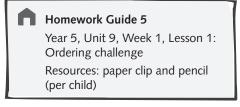
Plenary

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.



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.