Spotlight 5: a learning check

Is not systematic when sharing into equal groups using a 'one for you' approach; does not use the language of division to describe the process

Opportunity for: discussing and explaining

Pirate gold

Time 10–15 minutes

Resources

- Cards with the key vocabulary words and any other words for division used by the child
- Yellow or orange cubes
- Number cards: 6, 8, 9, 10, 12, 15 (Resource sheets 1 and 2)
- At least one other child to play

Check: does the child use key vocabulary?

share between
share into
divide between
divide into
equal groups
same number in each group
fair
half
halving

Teaching activity

'Today we are going to play a game called **Pirate gold**, and we are going to see who wins the most gold. To win gold you must say the division sentences correctly, so this game will help you to be good at talking about division.'

Choose about four or six word cards and read them with the children. Put these cards face up on the table. You can add more cards as the children become more confident.

Note: Emphasise that the amount must be divided *equally* to make it fair.

divided into two	divided into three
divided between two	divided between three

Put the number cards face down on the table and spread them out so that they can be turned over one at a time. When they are turned back, they should be put in the same place as before. Put word cards face up.

How to play

The aim of the game is to win as many pieces of pirate gold (cubes) as possible.

1. Players take turns to turn over a number card and read the number. They then choose one of the word cards (thinking carefully which one is the best for them) and read the whole number sentence. For example:

12	divided between two

'Twelve divided between two makes six in a group.'

The players work out the number sentence using the gold pieces. They must say the sentence correctly – everyone else in the group must listen very carefully to what they say.

2. If everyone agrees that the sentence has been said properly and that the numbers are correct, that player wins all of the pirate gold pieces from one of the answer groups, six in the example given above.

   If they say the sentence incorrectly they don't win anything!

   They also don't win anything if, when they divide up the gold pieces equally, they find they have gold pieces left over. So they need to think very carefully whether they want to divide by two or by three.

3. The 12 card is turned back carefully so that it stays in the same place on the table.

   Warn the players that they will find it helps them if they remember where that 12 is – and any of the other numbers displayed.

   The aim of the game is to win as many pieces of pirate gold as they can, and players will find that some numbers are more useful than others.

If a child is finding the game hard, support them when they choose a suitable card to divide between, and also as they use cubes to work out how many gold pieces in each group.
For example:

? **How many groups do you have to divide the twelve between?**

? **Have you got two equal groups? How do you know?**

After a few turns you could ask the children to stop and reflect on what is happening.

? **To win more gold, which are the best number cards to use? Those with larger or smaller numbers?**

Establish that they will win more gold with twelve divided into two than six divided into two.

? **When Dan said his sentence, do you think he said it correctly? What else could he have said?**

? **Ali, can you say the sentence that Dan just said?**

? **When Lisa said 'shared between two' was that right?**

Variation

- It can turn into more of a game of chance if the number cards and the word cards are put into two shuffled piles and players take the top one of each pile and then return that card to the bottom of the pile. Doing this, some of the divisions won't work out without having a remainder, so the player will win nothing.

Learning outcomes

By the end of this set of activities, children should be able to:

- tackle related learning tasks with increased motivation and confidence;
- use and understand connected mathematical vocabulary;
- be systematic when sharing into equal groups using a 'one for you' approach;
- begin to have more efficient strategies for sharing, such as sharing out two or more at a time;
- begin to remember some division facts;
- use the language of division to describe the process;
- begin to show some understanding of estimating before dividing;
- check calculations by counting in increasingly efficient steps.