

Dr Fog Presents

Division of larger numbers

Year 5 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)



Resources

- Multiplication grids



Mental Learning Objective

- I can practice the four operations.



Mental Learning Task

- I am going to write 5 digits on the board, the four operation signs and a target number.
- You can use each digit once
- You have to use all the digits if you don't want to.
- Who can get nearest to the target number?



Mental Learning Task

Target : 100

2 5 3 7 1

+ - \times \div



Mental Learning Task

- Who got the closest?
- Show your solutions on the board.



Mental Learning Objective

- I can practice the four operations.



Main Learning Objective

- I can estimate the size of answers.
- I can use informal methods of division.
- I can record my work
- I can use quick informal methods for division and checking work.



Key idea

**I can compare
formal and
informal methods**



Main Learning Task

- Today you are going to look at ways of dividing three-digit numbers by one-digit numbers using mental methods as well as written ones.



Main Learning Task

- I am going to give you some sums.
- Write down the approximate answers.

$$175 \div 5 =$$

$$384 \div 3 =$$

$$284 \div 7 =$$

$$351 \div 6 =$$



Main Learning Task

- What range of estimates are there?

$$175 \div 5 =$$

$$384 \div 3 =$$

$$284 \div 7 =$$

$$351 \div 6 =$$



Main Learning Task

- Solve this questions on the board.

$$175 \div 5 =$$



Main Learning Task

- Recording may not be needed for small numbers or simple problems.
- It is important for keeping track when dealing with more complex calculations.



Main Learning Task

- Sometimes we need to make informal jottings.
- Other times we need to be more careful so we can check our ideas and to share it with someone else.



Main Learning Task

- Solve the other division questions:-
- Make an estimate then check your results.

$$384 \div 3 =$$

$$284 \div 7 =$$

$$351 \div 6 =$$



Main Learning Task

- Simplification:-
- Provide a multiplication grid. Children can work with two-digit numbers divided by one-digit numbers and three-digit multiples of 10.



Main Learning Task

- Challenge:-
- Challenge children to find a quick and efficient way to solve the problem.



Main Learning Objective

- I can estimate the size of answers.
- I can use informal methods of division.
- I can record my work
- I can use quick informal methods for division and checking work.



Plenary

$$384 \div 3 =$$

- Write your working on the board.
- Go through your thinking.
- What does it look like with the standard method?



Review of Key Idea

- I can compare informal and formal methods.
- Did you learn how to do this in this lesson?



Where Can I Find More Resources Like This?

- You can now visit my teaching resource website at <http://www.DrFog.co.uk>
- You can [click here](#) to search for more of my teaching resources.
- [Click here](#) to visit my **YES** shop!

