Dr Fog Presents

Solving Word Problems

Year 3 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)
Resources

• Loop cards (Available from www.Primaryresources.co.uk)
• Word problems (Available from www.primaryresources.co.uk)
• Individual number lines (Optional)
• 100-grids (optional)
Mental Learning Objective

- I can complete mental addition and mental subtraction problems.
Mental Learning Task

• Play a game of 'I have... who has'

• This is a loop game. The first person reads their card, the words indicate the next card to be read.

• See how fast you can play it.
Mental Learning Objective

• I can complete mental addition and mental subtraction problems.
Main Learning Objective

• I can pay attention to how an answer should be answered.

• I can separate out the calculation from the answer to the word problem.
Key idea

I can sort out how to answer a question from the actual solution to the question.
Main Learning Task

• Today we are looking at how to answer word questions.
Main Learning Task

• When we solve a word problem, we have to do two things:-

• We have to choose and do the calculations.

• We then use the result of our sum to answer the problem.
Main Learning Task

- Sit in pairs.
- I have a problem for you to solve.
- Lets read it first as a class.....

Question
Sam and Kim are twins. On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

Calculation

Answer to the problem
Main Learning Task

- Discuss with your partner how you will solve it.

Question

Sam and Kim are twins.
On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

Calculation

Answer to the problem
Sam and Kim are twins. On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

**Main Learning Task**

- What information is not important?
- Cross it out

**Question**

Sam and Kim are twins. On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

**Calculation**

**Answer to the problem**
Main Learning Task

• We don’t need to know they are twins.

Question

Sam and Kim are twins.

On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

Calculation

Answer to the problem
Sam and Kim are twins.

On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

• What calculation do we need to use?
  • As it says 'Altogether', we know it is an adding problem.

Answer to the problem
Main Learning Task

• We have now done the calculation but we haven’t yet got the answer to the question. What was the question?

Question

Sam and Kim are twins.
On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

Calculation

49

Answer to the problem
Main Learning Task

• So what’s the answer?

• £49

Question

Sam and Kim are twins.

On their birthday, Sam got £22 and Kim got £27. How much money did they get all together?

Calculation

49

Answer to the problem
Main Learning Task

- Here is another to solve

Question

Toni, Mark and Raj are saving up to buy a computer game together.

Toni has £8, Mark has £6 and Raj has 9

How much have they saved together?

Calculation:-

Answer to problem:-
Main Learning Task

- Here is another to solve.
- What calculation do we need?
- What is the answer?

Question

Joe is 8 years old. He has a sunflower 103 cm tall. His David is only 4. David’s sunflower is 98 cm tall.

How much shorter is David’s sunflower than Joe’s?

Calculation:-

Answer to problem:-
Main Learning Task

• Here is another to solve.
• What calculation do we need?
• What is the answer?

Question

Anne weighs 22kg. Anne’s brother is called Harry.
Harry weighs 17kg.

How much more does Anne weigh than Harry?

Calculation:-
Answer to problem:-
Main Learning Task

• Complete the word problems worksheets.
Main Learning Task

- **Simplification:**
- Encourage them to discuss the problems.
- Act out or draw the situations described.
- Provide number lines, 100-grids, or other apparatus to help children with the calculations.
Main Learning Task

• Challenge:
  
• Write your own word problems for your friends to solve.
Main Learning Objective

- I can pay attention to how an answer should be answered.
- I can separate out the calculation from the answer to the word problem.
Plenary

• Go over some of the problems.

• Has one of the high attainers written one of their own for the class to solve?

• What is the solution?
Plenary

• Some homework...

• Make up some problems like you had today to try on your maths partners in another maths lesson.
Review of Key Idea

• I can sort out how to answer a question from the actual solution to the question.

• Did you learn how to do this today?
Where Can I Find More Resources Like This?

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