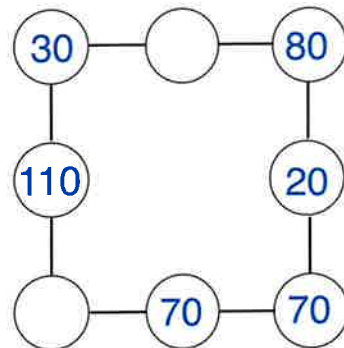**3rd February**

$32 \div 4$

3×12

3 pens cost 60p

Find the cost of 1 pen

In the diagram, the three circles in each straight line **must add to the same number**

Write in the missing numbers

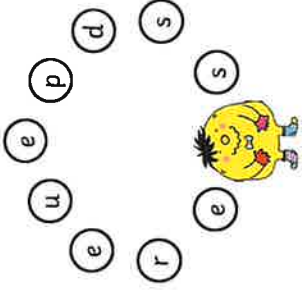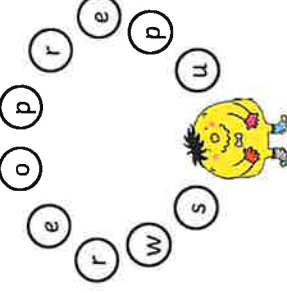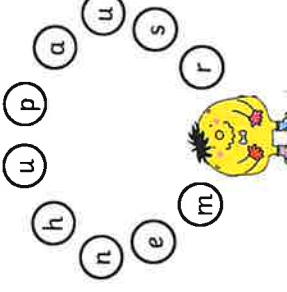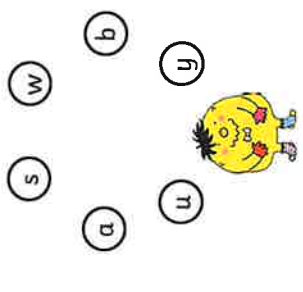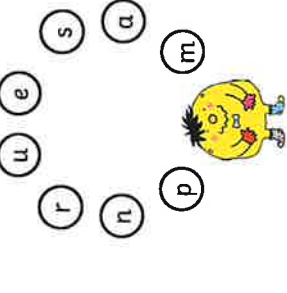Rosie does her maths and science homework.
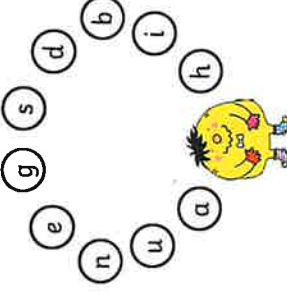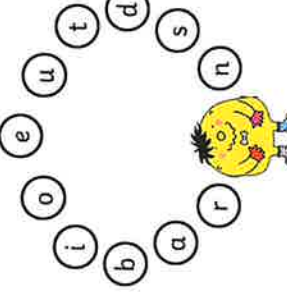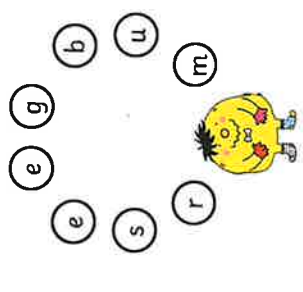
It takes her a total of **two hours**

She spends **90** minutes doing her maths homework.

How many **minutes** does she spend doing her science homework?

Mr Whoops' Juggling Muddle!

Clumsy Mr Whoops has been juggling with this week's super- and sub- prefix words and he's got in a real juggling muddle!
Could you help him to unjumble each word using the clues to help?

To take the place of something old	A special talent that can't be explained	A person with extraordinary powers	An underground tunnel
A male who can save the world	A section of non-fiction writing	A lower position (or in English – a less important clause)	To plunge below water

Decimals and Fractions Unit 5

Problem solving and reasoning questions

Always true, sometimes true or false?

- One half is zero point five

- A number of fifths can be written as an equivalent number of tenths

- A number of tenths can be written as an equivalent number of fifths

- $^4/_5$ is less than $^4/_{10}$

- Counting in tenths is the same as counting in 0.1s

- If I count on in steps of 0.1, the number after *zero point nine* is *zero point ten.*

These questions should be provided for children to do once the unit has been completed. They assess the children's mastery of the skills and concepts in this unit.

Sticky tenths

Focus of activity: Consolidating understanding of tenths as fractions and as decimals.

Working together: conceptual understanding

- Lay out three tenths fraction strips (see child instructions). Point out that each strip is split into ten equal pieces. *What do we call each piece?* A <u>tenth.</u> Remind children that we can write <u>one tenth</u> as $^1/_{10}$ or <u>0.1</u>, i.e. a fraction or a decimal. *How many tenths are in one whole?*
- Count along the three strips in tenths: *one tenth, two tenths, three tenths… nine tenths, one whole, one and one tenth, one and two tenths…* Repeat. This time counting in steps of 0.1: *zero point one, zero point two… zero point nine, one, one point one, one point two…*
- Ask a child to cut one of the strips into tenths.
- Write $1^4/_{10}$ and 1.4. Ask for a volunteer to use the strips to show this amount.
- Sketch a place value grid and ask a volunteer to write 1.4 in it:

1s	•	0.1s $^1/_{10}$s
1	•	4

- *We have one whole strip, so write 1 in the 1s column. We have four tenths, so we write 4 in the tenths column.* Point out that the <u>decimal point</u> separates the wholes from the decimal part of the number.
- Write 2.7. Ask a child to show this with strips and another to write the number in the place value grid, taking through the value of each digit.
- Repeat, this time asking a child to show 0.6, then write it in the place value grid. *This time we have no whole strips so we write a 0 in the 1s column.*

Up for a challenge?
Write 1.2 and 2.1. *Which number is bigger? How do you know?* Show both with the strips. Write 1.7, 2.3 and 0.9. Ask children to write the three numbers in order of size, smallest first.

Now it's the children's turn:

- Children use their fraction strips to represent given numbers and write them in a place value grid.
- Go round the group and mark their work, checking that they understand that the little pieces are tenths of one whole.

S-t-r-e-t-c-h:
If children cope well, ask them to write all their numbers in order from smallest to largest.

Things to remember

Remember that we can write one tenth either as 0.1 or $^1/_{10}$, and ten tenths make one whole. Ask children to write three numbers with one decimal place between 1 and 2. Sketch a line from 1 to 2, drawing marks to show tenths. Help children to mark their numbers on this line.
You may want to add something that has emerged from the activity. This may refer to misconceptions or mistakes made.

Resources	Outcomes
- Fraction strips (see child instructions) - Scissors - Glue sticks	1. Children can understand the value of each digit in numbers with one decimal place. 2. Children begin to order numbers with one decimal place.

Sticky tenths

Work in pairs, but stick your fraction strips into your own book/on paper.

Things you will need:
- Tenths strips
- Scissors
- Glue sticks
- A pencil

What to do:
- Choose at least three numbers less than 1 and at least three numbers more than 1 to show using your tenths strips.
- Write the number and stick the strips by the side.
- Each time, write the number in the place value grid below.
  Remember to draw the decimal point each time.

1.1, 0.8, 1.6, 2.1, 1.2, 0.1, 0.3, 2.5, 0.5, 2.2

1s	0.1s ¹⁄₁₀s

S-t-r-e-t-c-h:
Write all your numbers in order from smallest to largest.

Learning outcomes:
- I can understand the value of each digit in numbers with one decimal place.
- I am beginning to order numbers with one decimal place.

Sticky tenths