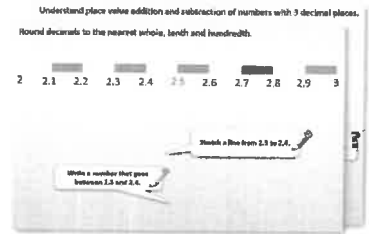


Week 5, Day 1

Short multiplication

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.

Practice Sheet 2 (2016)

Practice Sheet 2 (2016)

Place value addition and subtraction

| | |
|---------------|---------------|
| 4 538 + 0.2 | 4 538 + 0.02 |
| 4 538 + 0.004 | 4 538 + 0.02 |
| 6 231 + 0.11 | 6 231 + 101 |
| 7 021 + 0.01 | 8 846 + 2.11 |
| 5 846 + 0.1 | 8 846 + 0.013 |
| 5 846 + 0.204 | 12 789 + 2.03 |

Start at 4.342

Add tens and approximate to make an addition stop ending with the number 4.67

Answer is 4.672

Subtract tens and approximate to make a subtraction stop ending with the number 9.12

3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck**?

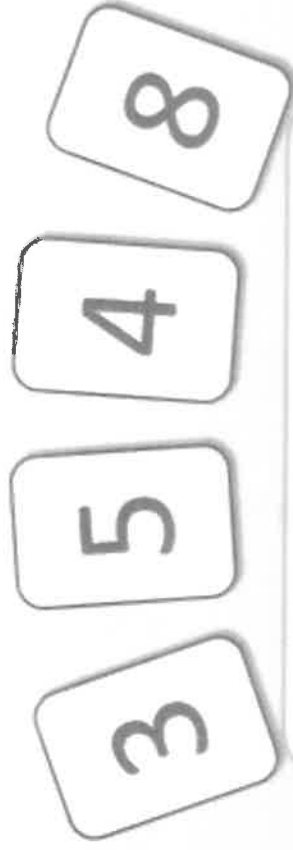
[illegible]

4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation...**

Learning Reminders

Use short **multiplication** to multiply 4-digit numbers by 1-digit numbers.

2341 5372 4278 6143



Target 20,000

Decide which 4-digit number to multiply by a number card.

You are aiming for an answer as close to 20,000 as possible. You can use short multiplication or the grid method....

How close to 20,000 were you?

How did you decide which 4-digit number to use?
Did rounding help?

Learning Reminders

Use short multiplication to multiply 4-digit numbers by 1-digit numbers.

$$\begin{array}{r} 2341 \\ \times 5372 \\ \hline 6143 \end{array}$$



$$\begin{array}{r} 2341 \\ \times 8 \\ \hline 18728 \end{array}$$

| | | | | |
|---|-------|------|-----|-------|
| x | 2000 | 300 | 40 | 1 |
| 8 | 16000 | 2400 | 320 | 8 |
| | | | | 18728 |

Learning Reminders

Use short multiplication to multiply 4-digit amounts of money by single-digit numbers; Use rounding to approximate.



**Sony MDR-ZX100
Outdoor Headband
Headphones**
Black by Sony
(25 Mar 2011)

£23.67

Roughly how much would it
cost to buy 3 of these?
Round to the nearest pound
to estimate the cost.

3 x £23.67

| | | | | |
|---|-----|----|-------|--------|
| x | £20 | £3 | 60p | 7p |
| 3 | £60 | £9 | £1.80 | 21p |
| | | | £1.80 | £71.01 |

3 x 60p = £1.80

Add the pounds, and
then the pence.

$$\begin{array}{r} \text{£ } 23.67 \\ \times \quad 3 \\ \hline \text{£ } 71.01 \end{array}$$

3 x 60p + 20p = £2

Practice Sheet Mild

Money multiplication practice

Use a written method to calculate the answers, but watch out for a few where you could use a mental method instead.

1. $3 \times \text{£}5.28$ 2. $5 \times \text{£}2.99$ 3. $4 \times \text{£}5.79$

4. $4 \times \text{£}4.16$ 5. $3 \times \text{£}2.63$ 6. $8 \times \text{£}4.43$

7. $7 \times \text{£}5.87$ 8. $3 \times \text{£}25.01$ 9. $6 \times \text{£}46.14$

10. $4 \times \text{£}25.42$ 11. $8 \times \text{£}63.54$ 12. $5 \times \text{£}32.45$

13. $4 \times \text{£}11.11$ 14. $8 \times \text{£}52.69$ 15. $7 \times \text{£}86.74$

Challenge

Which will have a larger total? $\text{£}34.34 \times 4$ or $\text{£}43.43 \times 3$
Can you say before you work them out to check?
Were you correct?

Practice Sheet Hot

Multiplying amounts of money

Choose a number from 3 to 9.

Choose one of these prices to multiply by your chosen single-digit number.

£45.19 £26.47 £53.28 £42.75

You are aiming for an answer as close to £200 as possible!

Repeat, with a different single-digit number each time.

Which answer was closest to £200?

Practice Sheet Answers

Money multiplication practice (mild)

1. $3 \times \text{£}5.28 = \text{£}15.84$
2. $5 \times \text{£}2.99 = \text{£}14.95$
3. $4 \times \text{£}5.79 = \text{£}23.16$
4. $4 \times \text{£}4.16 = \text{£}16.64$
5. $3 \times \text{£}2.63 = \text{£}7.89$
6. $8 \times \text{£}4.43 = \text{£}35.44$
7. $7 \times \text{£}5.87 = \text{£}41.09$
8. $3 \times \text{£}25.01 = \text{£}75.03$
9. $6 \times \text{£}46.14 = \text{£}276.84$
10. $4 \times \text{£}25.42 = \text{£}101.68$
11. $8 \times \text{£}63.54 = \text{£}508.32$
12. $5 \times \text{£}32.45 = \text{£}162.25$
13. $4 \times \text{£}11.11 = \text{£}44.44$
14. $8 \times \text{£}52.69 = \text{£}421.52$
15. $7 \times \text{£}86.74 = \text{£}607.18$

Challenge

$4 \times \text{£}34.34 = \text{£}137.36$ and $3 \times \text{£}43.43 = \text{£}130.29$ so the first is larger.

Multiplying amounts of money (hot)

e.g. $8 \times \text{£}26.47 = \text{£}211.76$

Can you get an answer closer to £200?

A Bit Stuck? Aim for 2000

Work in pairs, but record your work on your own sheet

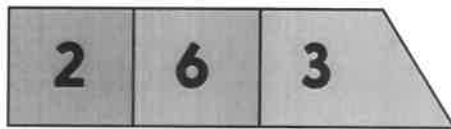
Things you will need:

- 100s, 10s and 1s place value cards
- A pencil



What to do:

- Spread out the 100, 200, 300, 400, 500 and 600 cards.
Spread out the 10, 20, 30, 40, 50 and 60 cards. Spread out the 1, 2, 3, 4, 5 and 6 cards.
- Choose one card from each group to make a 3-digit number.
- Use the grid method to multiply this by any number you choose from 2 to 9.
You are aiming to get an answer near 2000.
- Repeat.
- How close to 2000 can you get?



| | | | | |
|---|------|-----|----|------|
| | | | | |
| | | | | |
| x | 200 | 60 | 3 | |
| 9 | 1800 | 540 | 27 | 2367 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

S-t-r-e-t-c-h:

Use the grid method to work out 5×2346 and 4×4271 .

Learning outcomes:

- I can use the grid method to multiply 3-digit numbers by 1-digit numbers.
- I am beginning to estimate the answers.
- I am beginning to multiply 4-digit numbers by 1-digit numbers.

1 0 0

6 0 0

2 0 0

3 0 0

4 0 0

5 0 0

1 0

6 0

5

2 0

1

6

3 0

2

4 0

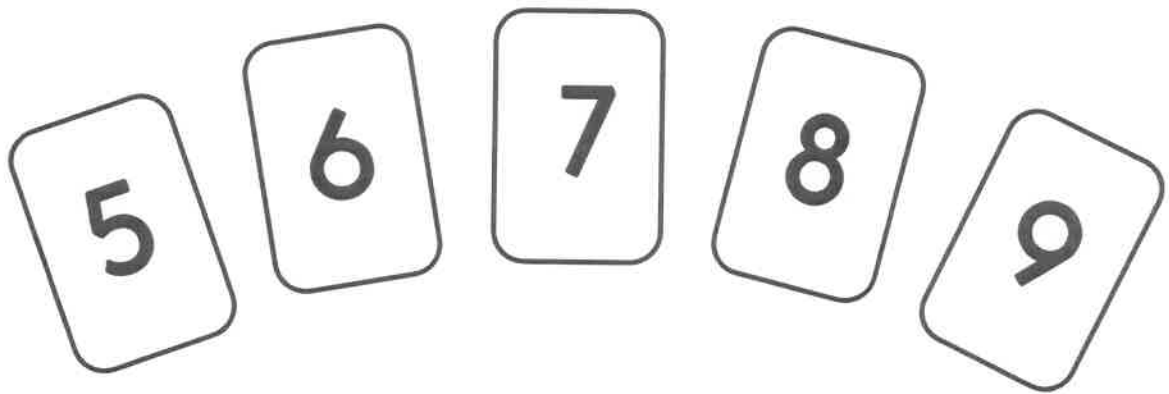
3

5 0

4

Investigation

Aim for 60,000



- Use the digits 5, 6, 7, 8 and 9 to create 4-digit by 1-digit multiplications.

$$\square\square\square\square \times \square$$

- Aim for an answer as close to 60,000 as possible.

What will be your strategy to get started?

How will you keep track of combinations of digits you've tried?

| | | | | | |
|--|---|---|---|---|---|
| | 5 | 6 | 7 | 8 | 9 |
| | | | | | |
| | 7 | 9 | 6 | 5 | 8 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

7 x 8569 = 59,983 is the closest you can get.

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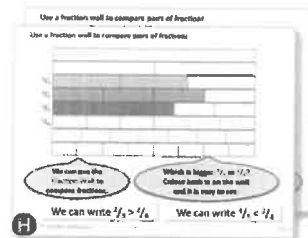
Explore more Hamilton Trust Learning Materials at <https://wrht.org.uk/hamilton>

Week 5, Day 2

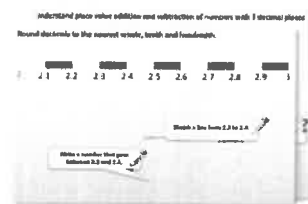
Short division

Each day covers one maths topic. It should take you about 1 hour or just a little more.

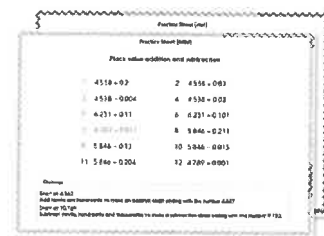
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the Learning Reminders.



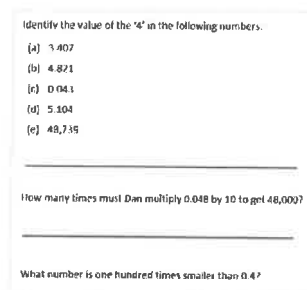
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



Learning Reminders

Use short division to divide 4-digit numbers by 1-digit numbers; Divide remainders to give fractions/decimals, round up or down.

$$2537 \div 3$$

$$\begin{array}{r} 3 \overline{) 2537} \end{array}$$

? About how many 3s are in 2537?

$800 \times 3 = 2400$,
so the answer
must be a bit
more than 800.

Learning Reminders

We are going to move a sticky note along to hide and reveal each column in turn.

3 2

? How many 3s in 2? None, so move the sticky.

8, and 1 left over.
We write 8 in the 100s column as we are dividing the 100s, then 1 hundred in front of the 10s digit.

8

3 2 5¹

? How many 3s in 25?

4, and 1 left over.
We write 4 in the 10s column as we are dividing the 10s, then 1 ten in front of the 1s digit.

8 4

3 2 5¹³¹

? How many 3s in 13?

5, and 2 left over.
We write 5 in the 1s column.

8 4 5 r 2

3 2 5¹³¹⁷

? How many 3s in 17?

We can divide the remainder 2 by 3.

The exact answer is $845\frac{2}{3}$.

Learning Reminders

Use short division to divide 4-digit numbers by 1-digit numbers; Divide remainders to give fractions/decimals, round **up or down**.

One answer needs us to round up, one to round down the answer, another to divide the remainder to give a fraction and another to write the equivalent decimal.

Round down.

1. How many whole weeks are there in 365 days?
2. How many packets of 4 chocolate bars can be made using 535 bars?
3. How many boxes of 6 eggs must be bought if we need 253 eggs?
4. A piece of material 562cm long is used to make curtains. It is cut into 4 equal lengths. How long is each curtain?

Give remainder as a fraction.

Round up.

Give remainder as a decimal.

Practice Sheet Mild

Short division

Divide any remainders to give fractions.

1. $733 \div 3$

2. $946 \div 6$

3. $4783 \div 4$

4. $6326 \div 4$

5. $3142 \div 4$

6. $3784 \div 5$

7. Exactly how many weeks are there in 365 days?

8. How many packs of 4 chocolate bars can be made using 535 bars?

9. How many packs of 6 eggs need to be bought if 253 eggs are needed?

10. If a piece of material measuring 562cm long is divided into 4 equal lengths to make curtains, how long is each length?

Practice Sheet Hot

Short division

Divide any remainders to give fractions.

1. $7133 \div 3$
2. $1946 \div 6$
3. $3183 \div 4$
4. $9326 \div 7$
5. $2442 \div 11$
6. $4752 \div 11$
7. $3784 \div 12$
8. $9524 \div 12$
9. There are 12 months in a year, 365 days. If each month was an equal number of days, exactly how many days would there be in a month? How long would each month be in a leap year of 366 days?
10. How many packs of 5 chocolate bars can be made using 1453 bars?
11. How many packs of 12 eggs need to be bought if 253 eggs are needed?
12. If a piece of material measuring 962cm long is divided into 8 equal lengths to make curtains, how long is each length?

Use multiplication to check three of your answers. What do you need to do with the remainder?

Practice Sheet Answers

Short division (mild)

1. $733 \div 3 = 244 \frac{1}{3}$
2. $946 \div 6 = 157 \frac{2}{3}$
3. $4783 \div 4 = 1195 \frac{3}{4}$
4. $6326 \div 4 = 1581 \frac{1}{2}$
5. $3142 \div 4 = 785 \frac{1}{2}$
6. $3784 \div 5 = 756 \frac{4}{5}$
7. $365 \div 7 = 52 \frac{1}{7}$
8. $535 \div 4 = 133 \frac{3}{4}$
9. $253 \div 6 = 42 \frac{1}{6}$ 43 packs of eggs must be bought
10. $562 \div 4 = 140 \frac{1}{2}$ cm

Short division (hot)

1. $7133 \div 3 = 2377 \frac{2}{3}$
2. $1946 \div 6 = 324 \frac{1}{3}$
3. $3183 \div 4 = 795 \frac{3}{4}$
4. $9326 \div 7 = 1332 \frac{2}{7}$
5. $2442 \div 11 = 222$
6. $4752 \div 11 = 432$
7. $3784 \div 12 = 315 \frac{4}{12}$ ($315 \frac{1}{3}$)
8. $9524 \div 12 = 793 \frac{8}{12}$ ($793 \frac{2}{3}$)
9. $365 \div 12 = 30 \frac{5}{12}$ $366 \div 12 = 30 \frac{6}{12}$ ($30 \frac{1}{2}$)
10. $1453 \div 5 = 290 \frac{3}{5}$ packs
11. $253 \div 12 = 21 \frac{1}{12}$ packs 22 packs need to be bought
12. $962 \div 8 = 120 \frac{2}{8}$ cm ($120 \frac{1}{4}$ cm)

A Bit Stuck? Any left?

Work in pairs

What to do:

1. Calculate the answers to:

$$10 \times 5 = \quad 20 \times 5 = \quad 30 \times 5 = \quad 40 \times 5 = \quad 50 \times 5 = \quad 60 \times 5 = \quad 70 \times 5 = \quad 80 \times 5 = \quad 90 \times 5 = \quad 100 \times 5 =$$

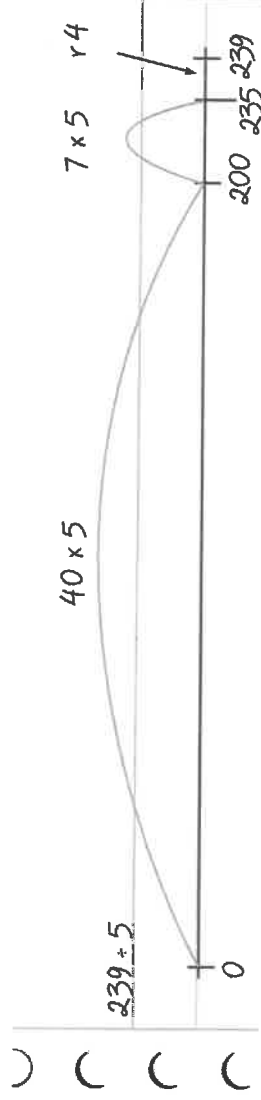
Now use your answers to help work out the answers to at least two of these divisions.

You score 10 points for each correct answer BUT you will score 10 bonus points if the division has a remainder.

$$239 \div 5 \quad 162 \div 5 \quad 365 \div 5 \quad 235 \div 5 \quad 414 \div 5$$

Things you will need:

- A pencil



2. Calculate the answers to:

$$10 \times 4 = \quad 20 \times 4 = \quad 30 \times 4 = \quad 40 \times 4 = \quad 50 \times 4 = \quad 60 \times 4 = \quad 70 \times 4 = \quad 80 \times 4 = \quad 90 \times 4 = \quad 100 \times 4 =$$

Now use your answers to help work out the answers to at least two of these divisions.

You score 10 points for each correct answer BUT you will score 10 bonus points if the division has a remainder.

$$143 \div 4 \quad 249 \div 4 \quad 326 \div 4 \quad 371 \div 4 \quad 208 \div 4$$

S-t-r-e-t-c-h:

Use chunking to work out $254 \div 6$ and $378 \div 6$.

What multiplications facts could you list to help?

Learning outcomes:

- I can use chunking to divide, using lists of multiples of 10 of the divisor to help.
- I am beginning to write my own lists of multiples to help.

Check your understanding

Questions

If Sally multiplies a number by 12 she gets 9,432. What was her starting number?

Tom multiplies his number by 9 and gets 7074. What was his starting number?

Calculate $1575 \div 6$.

- A piece of ribbon 1575cm long is cut into six equal pieces. How long is each piece?
- 1575 eggs are needed to make breakfast at a hotel. The eggs are in boxes of 6. Exactly how many boxes of eggs will be used?
- The school needs 1575 pens. The pens come in packs of 6. How many packs need to be bought?
- There are 1575 oranges. They are put into bags of 6 oranges. How many bags can be packed?

Fold here to hide answers

Check your understanding

Answers

If Sally multiplies a number by 12 she gets 9,432. What was her starting number? 786.

Tom multiplies his number by 9 and gets 7074. What was his starting number? 786.

Solved by division – for some children ‘multiplies’ is a trigger to do just that, rather than the division (as the reverse of multiplication) needed to solve these.

Calculate $1575 \div 6$.

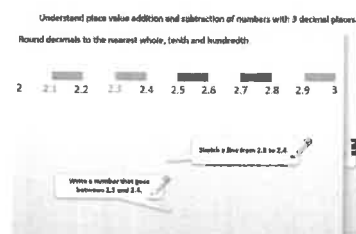
- A piece of ribbon 1575cm long is cut into six equal pieces. How long is each piece? 262.5cm
- 1575 eggs are needed to make breakfast at a hotel. The eggs are in boxes of 6. Exactly how many boxes of eggs will be used? $262\frac{1}{2}$
- The school needs 1575 pens. The pens come in packs of 6. How many packs need to be bought? 263
- There are 1575 oranges. They are put into bags of 6 oranges. How many bags can be packed? 262

Week 5, Day 3

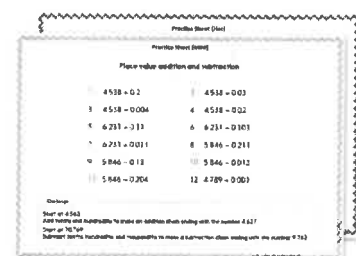
Fractions and percentages

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



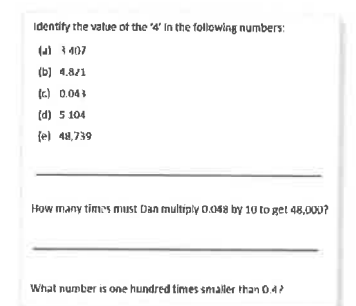
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild (easier)** or **Hot (harder)**! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Find **percentages**, link to **proportion**.

We can use fractions or percentages to describe a proportion.

In one group of 10 children, 3 prefer cycling and 7 prefer swimming.

10 children

$\frac{3}{10}$ 30%
3 children
prefer cycling

$\frac{7}{10}$ 70%
7 children prefer swimming

30 children are asked. The same proportion of children prefer cycling. How many children is this?

30 children

$\frac{3}{10}$ 30%
9 children
prefer cycling

$\frac{7}{10}$ 70%
21 children prefer swimming

If 60 children were asked. How would we change the bar model diagram? Double the numbers of children.

? If the same proportion preferred cycling, how many would this be?

Learning Reminders

Find percentages, link to proportion.

**40 children were asked and 75% preferred swimming.
The rest preferred cycling.**

Let's draw a bar model diagram to show this.

What is the fraction of children who chose swimming rather than cycling?

How many children choose swimming? And cycling?

| 40 children | | |
|---------------|----------|----------------------------|
| $\frac{1}{4}$ | 25% | ? children prefer cycling |
| ? | children | |
| $\frac{3}{4}$ | 75% | ? children prefer swimming |

Practice Sheet Mild

Equivalent fractions and percentages

30 children were asked to vote for cycling, swimming or football as their favourite weekend activity.

| Fraction | Percentage | Number of children |
|---|------------|--------------------|
| $\frac{1}{2}$ of children prefer swimming | | |
| $\frac{3}{10}$ of children prefer cycling | | |
| The rest prefer football | | |

30 children were asked to vote for dogs, cats or rabbits as their ideal pet.

| Fraction | Percentage | Number of children |
|---------------------------------------|------------|--------------------|
| $\frac{1}{2}$ of children prefer dogs | | |
| $\frac{1}{5}$ of children prefer cats | | |
| The rest prefer rabbits | | |

30 children were asked to vote for oranges, bananas or apples as their favourite fruit.

| Fraction | Percentage | Number of children |
|--|------------|--------------------|
| $\frac{2}{3}$ of children prefer bananas | | |
| $\frac{3}{10}$ of children prefer apples | | |
| The rest prefer oranges | | |

Practice Sheet Hot

Equivalent fractions and percentages

40 children were asked to vote for cycling, swimming or football as their favourite weekend activity.

| Fraction | Percentage | Number of children |
|---|------------|--------------------|
| <input type="checkbox"/> preferred swimming | 20% | |
| <input type="checkbox"/> preferred cycling | | 20 |
| The rest preferred football | | |

50 children were asked to vote for oranges, bananas or apples as their favourite fruit.

| Fraction | Percentage | Number of children |
|--|------------|--------------------|
| <input type="checkbox"/> preferred oranges | | 5 |
| <input type="checkbox"/> preferred bananas | | |
| The rest preferred apples | 30% | |

60 children were asked to vote for dogs, cats or rabbits as their ideal pet.

| Fraction | Percentage | Number of children |
|---|------------|--------------------|
| <input type="checkbox"/> preferred dogs | | |
| $\frac{3}{10}$ preferred cats | | |
| The rest preferred rabbits | | 12 |

Practice Sheets Answers

Equivalent fractions and percentages (mild)

| | |
|--------------|-------------|
| Swimming 50% | 15 children |
| Cycling 30% | 9 children |
| Football 20% | 6 children |

| | |
|-------------|-------------|
| Bananas 40% | 12 children |
| Apples 30% | 9 children |
| Oranges 30% | 9 children |

| | |
|-------------|-------------|
| Dogs 50% | 15 children |
| Cats 20% | 6 children |
| Rabbits 30% | 9 children |

Equivalent fractions and percentages (hot)

| | | | |
|----------|---------------|-----|-------------|
| Swimming | $\frac{1}{5}$ | 20% | 8 children |
| Cycling | $\frac{1}{2}$ | 50% | 20 children |
| Football | | 30% | 12 children |

| | | | |
|---------|----------------|-----|-------------|
| Oranges | $\frac{1}{10}$ | 10% | 5 children |
| Bananas | $\frac{3}{5}$ | 60% | 30 children |
| Apples | | 30% | 15 children |

| | | | |
|---------|---------------|-----|-------------|
| Dogs | $\frac{1}{2}$ | 50% | 30 children |
| Cats | | 30% | 18 children |
| Rabbits | | 20% | 12 children |

A Bit Stuck? Emojis



7 out of 10 faces are happy. This is $\frac{7}{10}$ or 70%.

For each row of emojis write how many are happy, what fraction this is and what percentage this is equivalent to.



Check your understanding

Questions

Complete the bar models.

| 32 children | |
|------------------------|------------------------|
| $\frac{1}{4}$? chn | $\frac{3}{4}$? chn |

| 40 children | |
|--------------|--------------|
| 40% ? chn | 60% ? chn |

If 6 children in a class do not like sport, and there are 30 children in the class, what proportion *do* like sport?

Give your answer as a fraction *and* as a percentage.

Fold here to hide answers

Check your understanding

Answers

Complete the bar models.

| 32 children | |
|------------------------|-------------------------|
| $\frac{1}{4}$ 8 chn | $\frac{3}{4}$ 24 chn |

| 40 children | |
|---------------|---------------|
| 40% 16 chn | 60% 24 chn |

If 6 children in a class do not like sport, and there are 30 children in the class, what proportion *do* like sport?

Give your answer as a fraction *and* as a percentage.

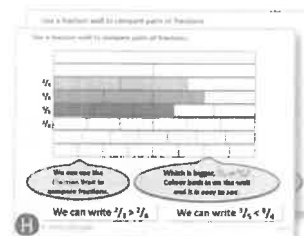
24 like sport which is $\frac{24}{30}$ or $\frac{4}{5}$ as a fraction and 80% as a percentage.

Week 5, Day 4

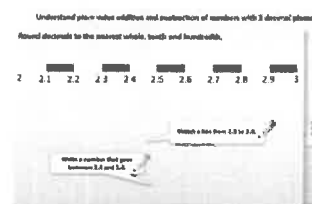
Algebra (1)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

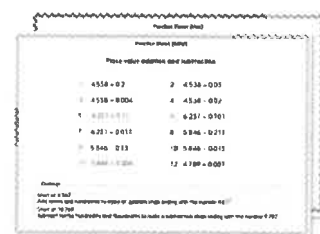
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



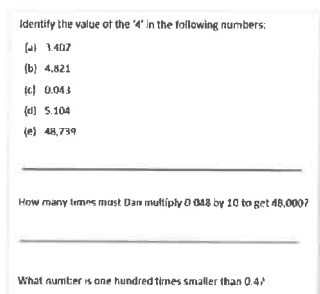
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



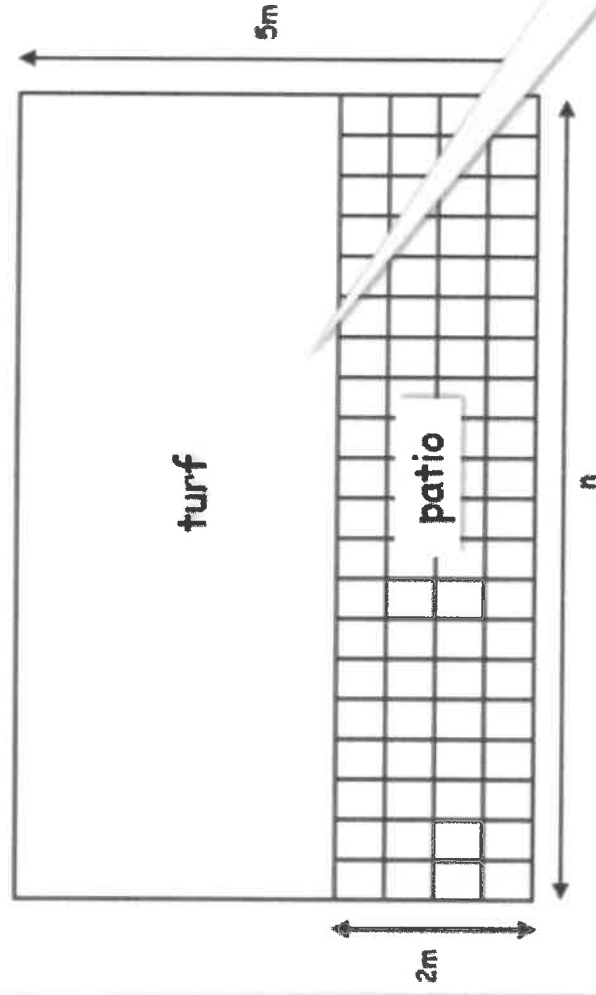
4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Understand and use simple formulae.

Garden sketch



Houses are built on different plots. The back gardens are 3 metres long but they will be different widths.

Each will have a patio area, the width of the plot and 2 metres deep. The rest of the garden will be turfed.

We can use ' n ' to stand for the width of the garden, so the patio area is $2 \times n$ metres squared, which we can write as $2n \text{ m}^2$ for short.

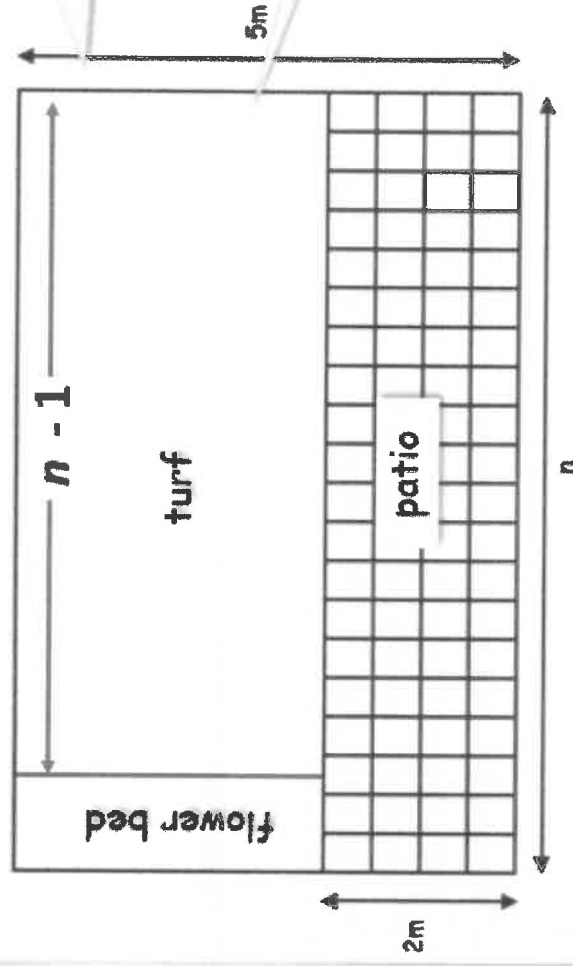
Write a formula for the area of the turf.

$3n$ square metres or $3n \text{ m}^2$

Learning Reminders

Understand and use simple formulae.

Garden sketch



What would be the area of the turf if they left a border of 1m along each side?

3 times $(n - 2)$ square metres
or $3(n - 2) \text{ m}^2$

Practice Sheet Mild

Algebra ages

David is 7, his sister Annie is 2 years older than him. How old will Annie be when David is 10? 20? 50?
Write a formula for Annie's age where n is David's age.

David's brother is 3 years older than Annie. How old will his brother be when David is 10? 20? 50?
Write a formula to find the brother's age, where n is David's age.

David has a sister who is 4 years younger than him. Write a formula to find the sister's age where n is David's age.

David was born on 5th September, so on 5th December he is his age in years plus 3 months. This Christmas he will be 7 years old, so how can we calculate his age in months?
What will be his age in months next December?
What will his age be in months the December after he has his 10th birthday?
What about when he is n years old?

Write a formula that could be used to calculate *your* own age in months.

Practice Sheet Hot

Write a formula

Discuss how these prices/amounts would be worked out with a partner, and then write a formula using n . Make $n=5$ in each example to see if the answer makes sense using your formula.

1. Stamps cost 52p each. The cost of n stamps is...
2. The number of wheels on n cars is...
3. The number of months in n number of years is...
4. For n fence panels, ... fence posts are needed.
5. The change from £10 after buying n apples at 25p each is...
6. The time to cook a chicken weighing n kg, at 45 minutes per kilogram and 20 minutes extra is...
7. The distance travelled when a bike wheel turns 20 times and the circumference of the wheel is n , is...
8. The price of an item costing n pounds after VAT of 20% added.

Practice Sheets Answers

Algebra ages (mild)

How old will Annie be when David is 10? 12 20? 22 50? 52

Write a formula for Annie's age where n is David's age. $n + 2$

How old will his brother be when David is 10? 15 20? 25 50? 55

Write a formula to find the brother's age, where n is David's age. $n + 5$

Write a formula to find the sister's age where n is David's age. $n - 4$

David was born on 5th September, so on 5th December he is his age in years plus 3 months. This Christmas he will be 7 years old, so how can we calculate his age in months?

$$7 \times 12 = 84 \quad 84 + 3 = 87 \text{ months}$$

What will be his age in months next December?

$$8 \times 12 = 96 \quad 96 + 3 = 99 \text{ months}$$

What will his age be in months the December after he has his 10th birthday?

$$10 \times 12 = 120 \quad 120 + 3 = 123 \text{ months}$$

What about when he is n years old?

$$12n + 3$$

Write a formula (hot)

1. The cost of n stamps is $52n$ (in pence) or $0.52n$ (in pounds).
2. The number of wheels on n cars is $4n$.
3. The number of months in n years is $12n$.
4. For n fence panels, $n + 1$ fence posts are needed.
5. The change from £10 after buying n apples at 25p each is $\pounds(10 - 0.25n)$.
6. The time to cook a chicken weighing n kg, at 45 minutes per kilogram and 20 extra minutes is $45n + 20$ minutes.
7. The distance travelled when a bike wheel turns 20 times and the circumference of the wheel is n , is $20n$.
8. The price of an item cost n pounds after VAT of 20% added is $\pounds 1.2n$.

A Bit Stuck? Using formulas

There are 6 eggs in a box. So, in n boxes there are $6n$ eggs.
How many eggs are in 5 boxes? 10 boxes? 100 boxes?

The perimeter of a regular octagon is $8n$, where n is the length of one side in centimetres.

What is the perimeter of an octagon whose sides are 5cm long? 10cm long? 20cm long?

The number of fence posts needed for n fence panels is $n + 1$.

How many fence posts are needed for 4 fence panels? 10 fence panels? 20 fence panels?

Tickets to see a band are priced £15. There is a one-off booking fee of £3.

So, the cost in pounds of tickets to see the band is $15n + 3$.

How much would it cost to buy 2 tickets? 5 tickets? 10 tickets?

Esme has £10 in her savings account. Each week she saves another £5.

After n weeks, the number of pounds she has in her account is $5n + 10$.

How much is in her savings account after 4 weeks? After 10 weeks?

After a year (52 weeks)?

Dylan has £100 in his savings account. He decides to spend £5 a month on a magazine. He doesn't spend anything else from his savings account.

After n months, the number of pounds he has left is $100 - 5n$.

How much does he have left after 4 weeks? 10 weeks?

If he kept doing this, how long would be before he ran out of money?

$n - \square$ months

Check your understanding

Questions

If the perimeter of a regular shape is $5 \times n$, where n is the length of a side, what is the shape?
Find the perimeter when $n = 6.5$ cm.

Darren draws a function machine. It trebles a number and then subtracts 6. Sophie sees that one of the outputs is 15. What was the input?
Then Darren inputs 11. What output will Sophie see?
Write the formula for Darren's machine.

Formula A is $3n$.

Formula B is $n + 6$.

What number can n represent which will make these two formulae equal the same amount?

Fold here to hide answers

Check your understanding

Answers

If the perimeter of a regular shape is $5 \times n$, where n is the length of a side, what is the shape? The shape is a pentagon.

Find the perimeter when $n = 6.5$ cm. $5 \times 6.5 = 32.5$ cm

Darren draws a function machine. It trebles a number and then subtracts 6. Sophie sees that one of the outputs is 15. What was the input? 7 Use inverse operations adding 6 to 15 then dividing by 3.

Then Darren inputs 11. What output will Sophie see? 27

Write the formula for Darren's machine. $3n - 6$

Formula A is $3n$.

Formula B is $n + 6$.

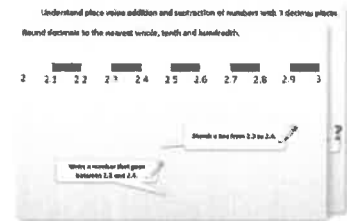
What number can n represent which will make these two formulae equal the same amount? $n = 3$

Week 5, Day 5

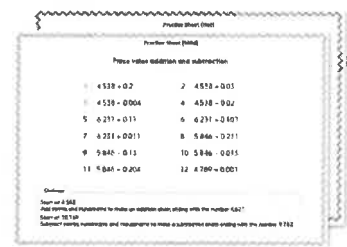
Algebra (2)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild (easier)** or **Hot (harder)**! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation...**

Learning Reminders

Make generalisations; Understand and use simple formulae.

do fit function rule

do not fit function rule

input output

2 5

3 7

10 21

100 201

input values

output values

check values

Input 2 numbers and try to guess the rule of the function machine.

This machine does two things, one after the other, to each input.

Someone has tested some inputs and outputs. Look at them and see if you can work out what the machine is doing...

Learning Reminders

Make generalisations; Understand and use simple formulae.

do not fit function rule

do not fit function rule

| input | output |
|-------|--------|
| 2 | 19 |
| 3 | 29 |
| 5 | 49 |
| 10 | 99 |

input 3 digits

output 3 digits

input values

output values

check values

This machine does two things, one after the other, to each input.

Someone has tested some inputs and outputs. Look at them and see if you can work out what the machine is doing...

Input 2 numbers and try to guess the rule of the function machine.

Learning Reminders

Make generalisations; Understand and use simple formulae.

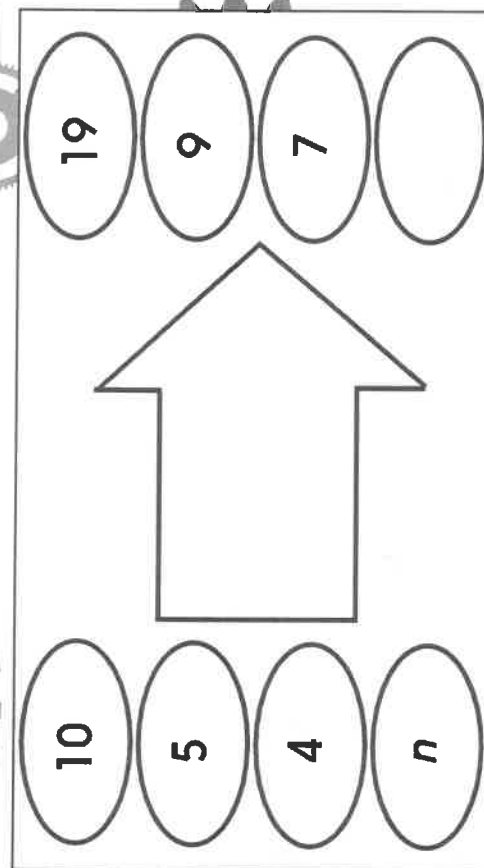
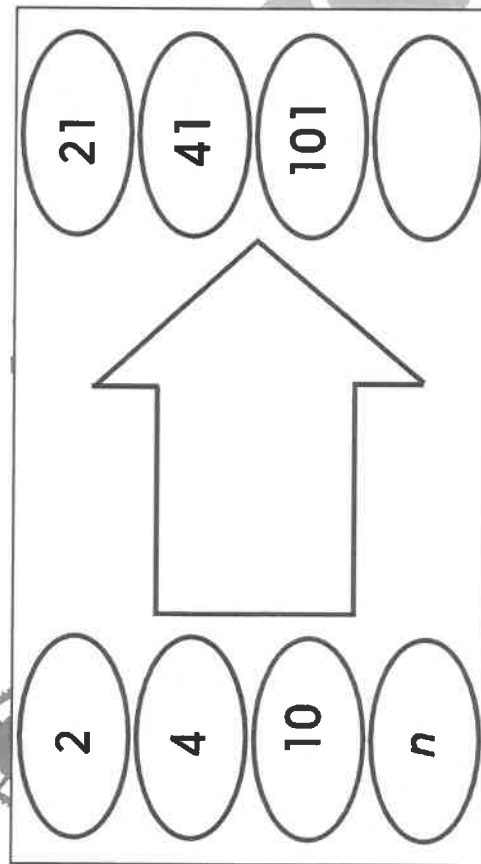
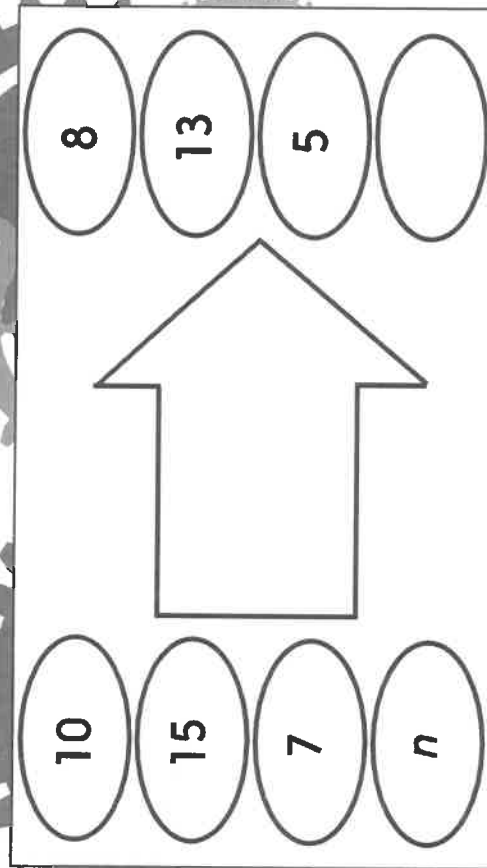
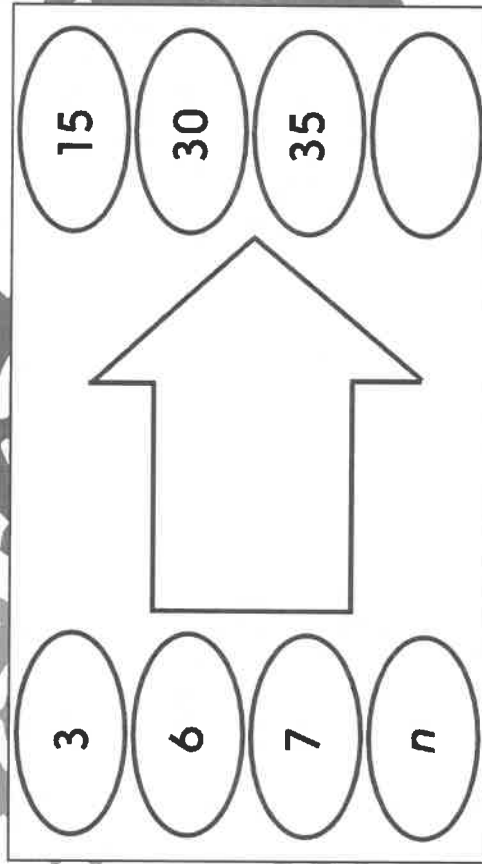
Function machine rules

- The first function machine: $\times 2, + 1$. If n is the input, the number we put into the machine, we can write the output as $2n + 1$, which means we double the input, then add 1.
- The second function machine: $\times 10, - 1$. If n is the input, we can write the output as $10n - 1$.

Practice Sheet Mild

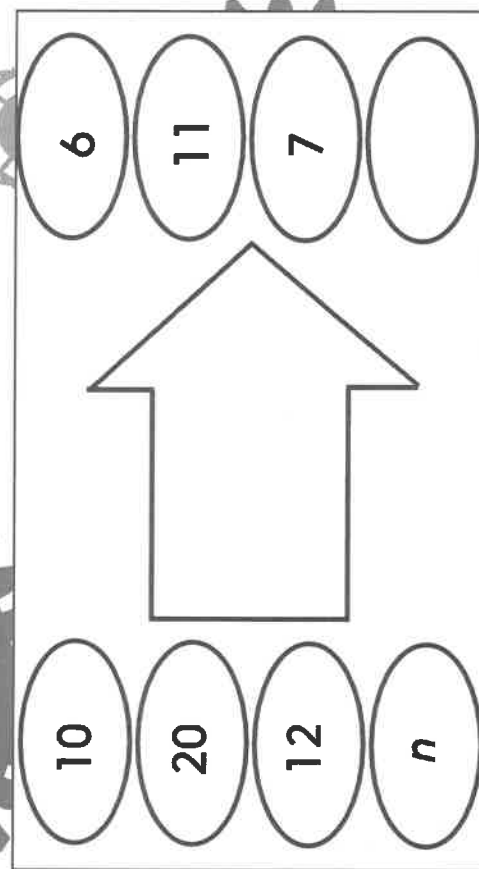
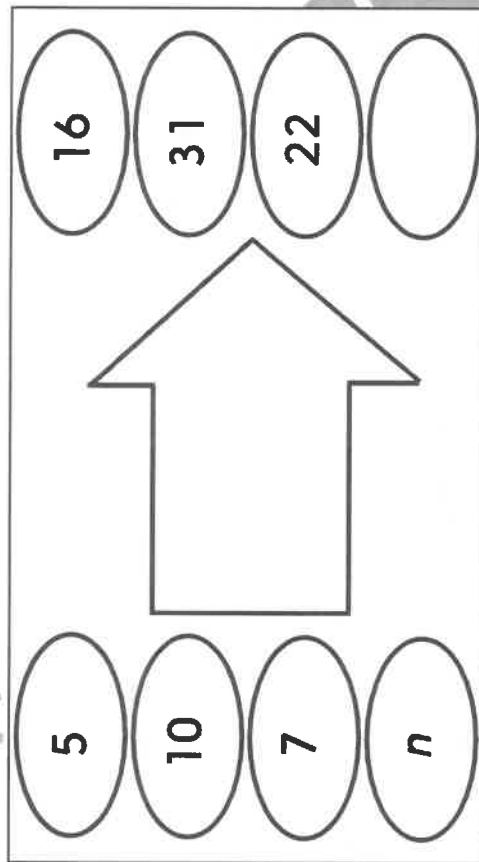
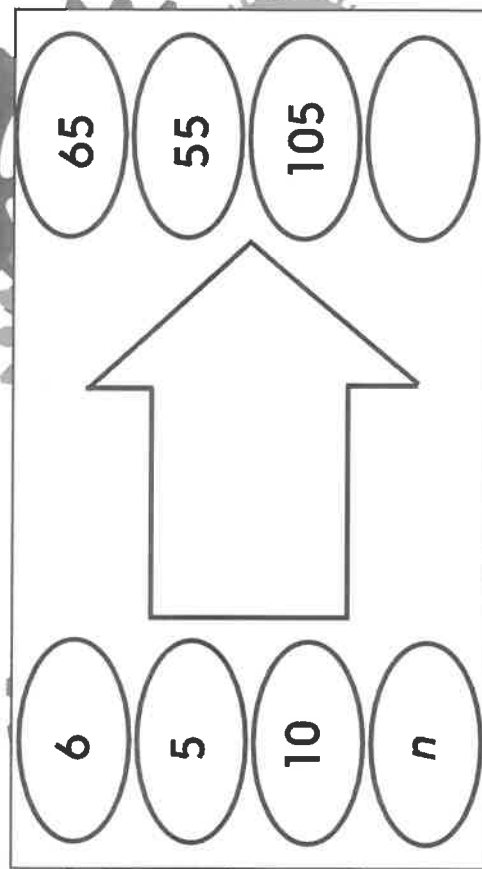
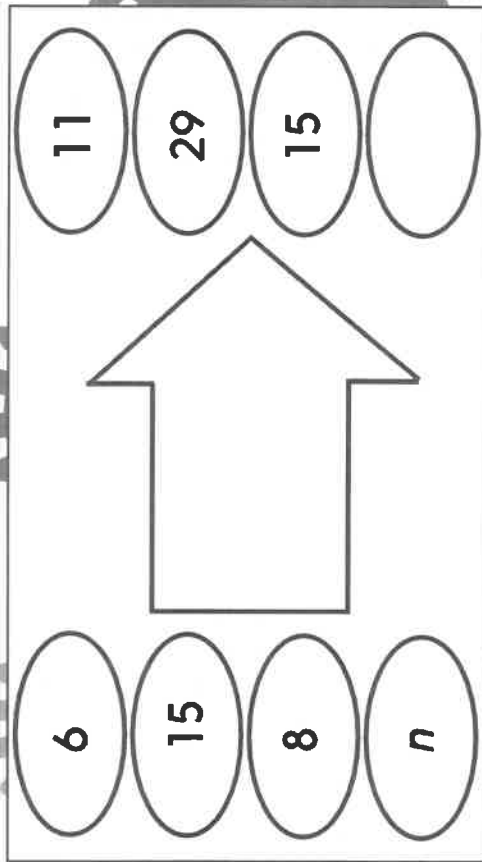
Function machines

Work out what each function machine does. Write the output when n is the input.



Practice Sheet Hot Function machines

Work out what each function machine does. Write the output when n is the input.



Challenge

Create your own two step function machine. Choose 3 inputs and find their outputs, swap with a partner. Can you discover each other's secret function?

Practice Sheets Answers

Function machines (mild)

$$3 \times 5 = 15$$

$$6 \times 5 = 30$$

$$7 \times 5 = 35$$

$$5n$$

$$10 - 2 = 8$$

$$15 - 2 = 13$$

$$7 - 2 = 5$$

$$n - 2$$

$$2 \times 10 + 1 = 21$$

$$4 \times 10 + 1 = 41$$

$$10 \times 10 + 1 = 101$$

$$10n + 1$$

$$10 - 1 + 10 = 19$$

$$5 - 1 + 5 = 9$$

$$4 - 1 + 4 = 7$$

$$2n - 1$$

unction machines (hot)

$$6 - 1 + 6 = 11$$

$$15 - 1 + 15 = 29$$

$$8 - 1 + 8 = 15$$

$$2n - 1$$

$$6 \times 10 + 5 = 65$$

$$5 \times 10 + 5 = 55$$

$$10 \times 10 + 5 = 105$$

$$10n + 5$$

$$5 \times 3 + 1 = 16$$

$$10 \times 3 + 1 = 31$$

$$7 \times 3 + 1 = 22$$

$$3n + 1$$

$$10 \div 2 + 1 = 6$$

$$20 \div 2 + 1 = 11$$

$$12 \div 2 + 1 = 7$$

$$n \div 2 + 1$$

A Bit Stuck? Function detectives

Look at the inputs and outputs. What calculation(s) is each machine doing?

| | |
|-----|-----|
| 3 | 15 |
| 4 | 20 |
| 10 | 50 |
| 100 | 500 |

| | |
|----|----|
| 2 | 13 |
| 3 | 14 |
| 5 | 16 |
| 10 | 21 |

| | |
|----|----|
| 10 | 3 |
| 20 | 13 |
| 15 | 8 |
| 7 | 0 |

| | |
|----|-----|
| 2 | 40 |
| 3 | 60 |
| 4 | 80 |
| 5 | 100 |
| 10 | 200 |

S-t-r-e-t-c-h:

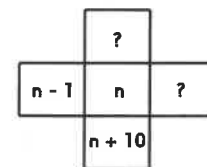
Can you write a formula for each machine where n is the input?

Investigation Stars and crosses

1. Ring a number on the 1-100 grid that is not in a row or column on the edge of the square.
2. Ring the number below, the number above, the number to the left and the number to the right to form a cross.
3. Find the total of the five numbers and make a record of this along with the central number of the cross.
4. Repeat elsewhere on the grid. Can you see a relationship between the central number and the sum of the five numbers in the cross?
5. Why do you think that this relationship holds? Write a formula for finding the total of the five numbers in any cross laid out like this.
6. Now ring numbers in a bigger cross with nine, thirteen or even more numbers! See if you can predict the total. You may want to use a calculator to speed up the process if your cross is really big.

| | | |
|----|----|----|
| 13 | 14 | 15 |
| 23 | 24 | 25 |
| 33 | 34 | 35 |

| |
|------------|
| 14 |
| 23 |
| 24 |
| 25 |
| + 34 |
| <u>120</u> |
| 24 |



| | | | | |
|----|----|----|----|----|
| 13 | 14 | 15 | 16 | 17 |
| 23 | 24 | 25 | 26 | 27 |
| 33 | 34 | 35 | 36 | 37 |
| 43 | 44 | 45 | 46 | 47 |
| 53 | 54 | 55 | 56 | 57 |

Can you write formula for finding the total of ANY cross that will fit on the grid?
What if this was not a 1-100 grid, but a 1-81 grid, arranged in nine rows of 9?

Challenge

Choose one of the shapes below, and try and find a way of finding the total of numbers in that shape anyway or anywhere on the grid. Or make up your own shape!

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

Investigation Stars and crosses

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Investigation Stars and crosses

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 |
| 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
| 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read and watch a poem

- Read *What do you want to be?* Can you find its rhythm as you read? Try reading in your head and then out loud.
- Now watch the poet perform his poem:
<https://www.youtube.com/watch?v=GGXCSulVamo>
- Did the poem sound like you expected to? What did you notice about Wilf Merttens' performance?

2. Think about the poem

- Read the *Poetry Questions* and think about your answers.
- Write your answers in clear sentences.

3. Now for some writing

- Write a *Letter to Wilf Merttens*. Tell him about the poem – what you liked about it (and what you disliked), ask him any questions that you have and tell him about what you want to be.

Try the Fun-Time Extra

- Read this article about unusual jobs.
<https://www.independent.co.uk/news/business/news/the-unusual-jobs-you-didnt-know-existed-a6743331.html>
- Which of these jobs would best suit you? Which would best suit someone in your family? Why?

What do you want to be?

What do you want to *be*?

What do *you* want to be?

What do you want to be?

Hey listen kid, you don't have to tell me—

I'm just here to read some poetry.

You can leave now if you want.

You're completely free, you see.

But, before you go, let me tell you

I'm not here to tell you about birds and bees
and trees

and bananas and farmers and poetry things.

This poem is a question,

and I'm asking what you dream and feel and things.



You see, maybe you want to be famous.

Maybe you want to be an astronaut and explore Uranus.

Maybe you want to be the craziest stunt lady Hollywood's ever seen.

Maybe you want to buy some flashy mansion
and spend all your time keeping it clean.

Maybe you're a dancer and Bollywood's more your scene.

Maybe you're a natural,

Maybe you're going to have work hard at it.

Maybe you're a punk singer and you want to smash...it...up.

Maybe you like nice stuff.

Maybe to get it you're going to act all tough.

Maybe you're going to be sweet.

Maybe you're going to meet and greet.

Maybe you just want to help people.

Or maybe you want to be a success, like prove that you're the best.

Maybe you want to be a celebrity, or an important politician,
shake the hands of the mayor.
Then again, maybe you just don't care.
Maybe you're in it for the money.
Now *that's* a sweet honey.
People don't find anything funny when they're racing to be rich.
Maybe you want to be surrounded by iPhones and quick fixes,
Maybe your heart tremors and twitches round diamond rings and bling.
Maybe you want to see all the precious things that eBay can bring,
Or wear so many jewels you look like a King.
Maybe you just want to sing in the shower
and that's what makes you feel free.
Maybe all you need is the moon and a tree to feel happy.
Maybe you're a natural.
Maybe you're a doctor, a tinker, a tailor, an architect of bad behaviour.
You could be a soldier or a spy.
You could be the kind of guy who wonders why
the world is just as it is
Or how the plane can stay in the sky.
Maybe you're an expert at stopping a baby crying.
Maybe you'll be found frying a rich man's breakfast
in a gourmet restaurant.
Maybe you're a killer chef or an amazing painter.
You don't have to know now;
you can find out later what it is you really want to be.
Because maybe you just want to see the world.
Maybe you want to travel around and live out of a backpack.
Maybe you want to be a goth, wearing nothing but black
'cos maybe being blue just ain't you.
Maybe you just have to find out what's true and what's a lie in the
newspaper.
Maybe you'd make a kiss-ass journalist.
Then again maybe all that writing would turn you mentalist.

Maybe you want to make your own zombie movies,
spray ketchup all over your mate's face for fake blood,
Maybe you want to be a dirt biker all covered in mud,
or a rescue woman saving people in a flood.
Maybe you want to be a boxer, landing punches with a thud.
Maybe you want to do very little,
live life quietly up a mountain someplace,
stay up all night staring into space.
Maybe you want to raise a family.
Maybe you want to devote your life to a god.
Maybe you want to live in a caravan on the sea, serving cod and chips.
Maybe you'll be eternally swell if you can just kiss a sweet pair of lips

Whatever your dream, I'm just here to remind you that you can be whatever
you want to be and you can have *anything*, you see.
Now if you're like me you're going to want it all for free.
But like me and like lots of other people like me,
in the end you're going to see
that if you want to be what you want to be
then you are going to have believe
and work real hard.
Unless you just want to be a nobody, which is real easy.
But don't worry, 'cos this crazy game is not a race,
and it's not up to me or school or TV to tell you your place.
We don't know your dream, or even what you really mean
when you say what you want to be.
It's up to you.
You've got to decide for yourself you see.
Now, tell me - what do you want to be?

Wilf Merttens

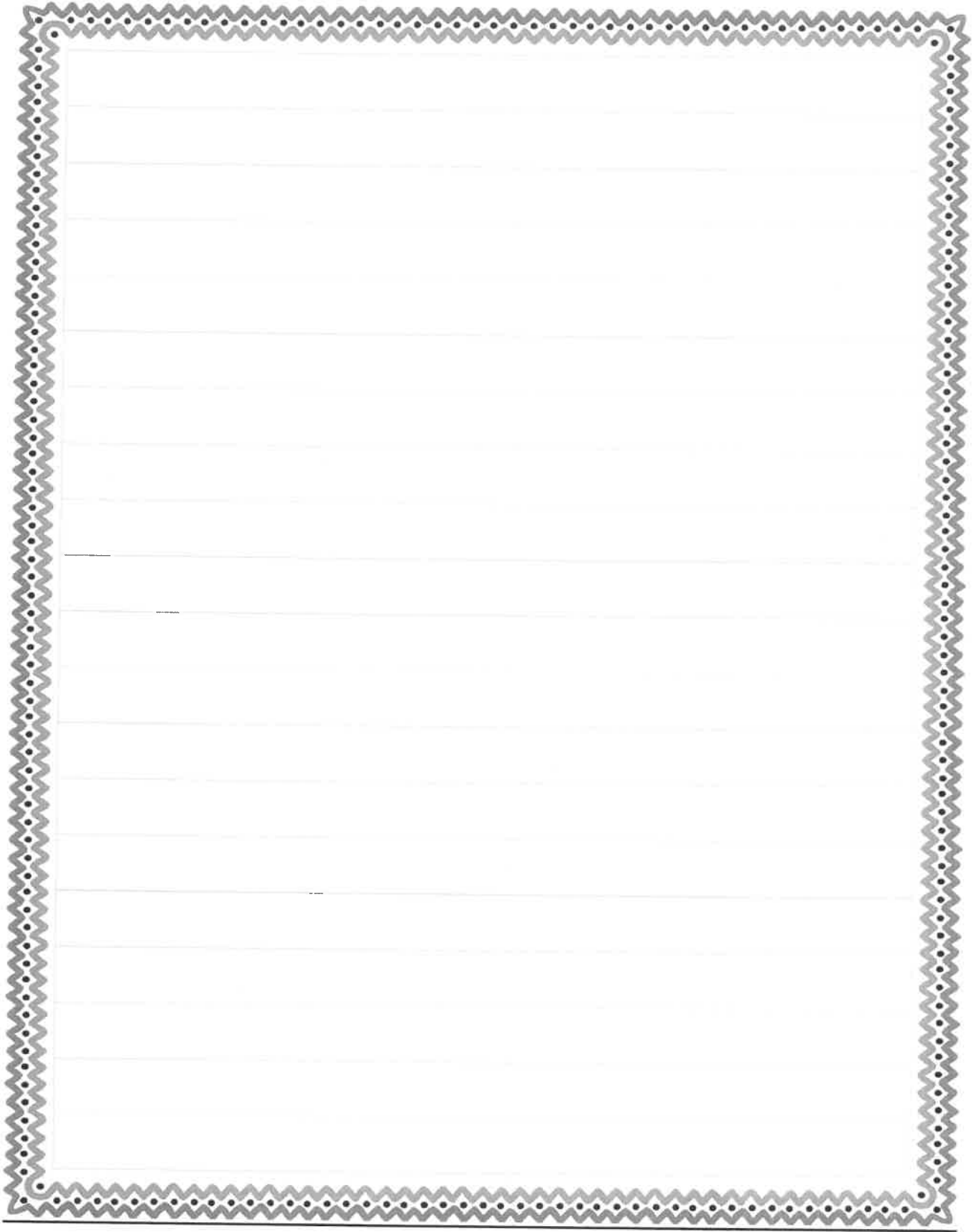
Poetry Questions

| | |
|---|--|
| What do you like about this poem? Is there anything that you dislike why? | What are some of the messages of this poem? |
| What patterns can you find in this poem? Are there rhymes or alliteration? Is there assonance? What can you say about the rhythm of the poem? | What puzzles or questions does this poem give you? |

Letter to Wilf Merttens

Write a letter to Wilf Merttens. Tell him what you thought of his poem, ask any questions and tell him what you would like to be.

A large rectangular area with a decorative border and horizontal lines for writing a letter. The border is a grey zigzag line with small black dots. The interior is white with horizontal lines.



What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read a poem

- Read the poem: *Mother to Son*. What message is there in the poem?
- Listen to the poem being performed. Does it sound like you expected?
<https://www.youtube.com/watch?v=NX9tHuI7zVo>

2. Answer questions about poems

- Read *Keep on Keepin On* and answer the *Questions*.
- Challenge yourself to read *Don't Quit* and to answer its *Questions*.

Well done! Share your answers with a grown-up. Look at the poems together and explain your answers to them.

3. Choose some quotations

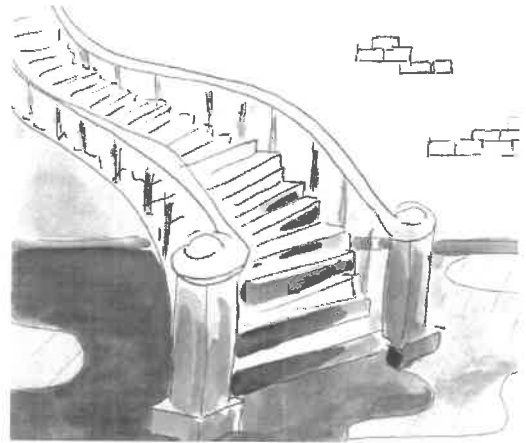
- Go through the three poems and choose your favourite lines. Underline these.
- Choose one of your favourite lines and make it into a poster to inspire you or somebody in your family.

Try the Fun-Time Extras

- Find out more about Langston Hughes. What can you learn about him or his poems?
- Send an inspirational line of poetry or a copy of a whole poem to somebody that you haven't seen recently. Write to them to explain why you have chosen it for them.

Mother to Son

Well, son, I'll tell you:
Life for me ain't been no crystal stair.
It's had tacks in it,
And splinters,
And boards torn up,
And places with no carpet on the floor—
Bare.
But all the time
I've been a-climbin' on,
And reachin' landin's,
And turnin' corners,
And sometimes goin' in the dark
Where there ain't been no light.
So boy, don't you turn back.
Don't you set down on the steps
'Cause you finds it's kinder hard.
Don't you fall now—
For I've still goin', honey,
I've still climbin',
And life for me ain't been no crystal stair.



Langston Hughes,
The Collected Poems of Langston Hughes,
Vintage, 1995

Keep On Keeping On

We've all had times when the going gets tough
The smooth ride suddenly feels bumpy and rough
The good times are gone, it's all rather gruff
You let out a sigh and exclaim– "I've had enough"

We are all entitled at times, to gripe and to moan
What's happened to my life, you say with a groan?
My backpack seems weighed down by a very big stone
How do I move away from this miserable zone?

When a curved ball hits you, through a trick or a con
Remember the good days, when the sun always shone
Go forward with the belief that you already have won
The best advice I can give is to keep on–keeping on

Michael Sage



Questions about Keep On Keeping On

1. What does *gruff* (line 3) mean?
2. There is no sentence-end punctuation at the finish of the line in verse 1 which closes, ...*I've had enough*. Which sentence-end punctuation do you think might work best here? Why do you think that?
3. Quote the line in the poem that suggests that, from time to time, everybody has the right to moan about things that are frustrating them.
4. In verse 2 the poet talks of a backpack *weighed down by a very big stone*. What do you think the poet means by this?
5. Can you give an example of the kind of thing that the poet might be suggesting is *a very big stone*?
6. Would you say the overall mood of the poem is optimistic or pessimistic? Why do you think that?
7. In your own words, say what you think Michael Sage's main message in the poem is.

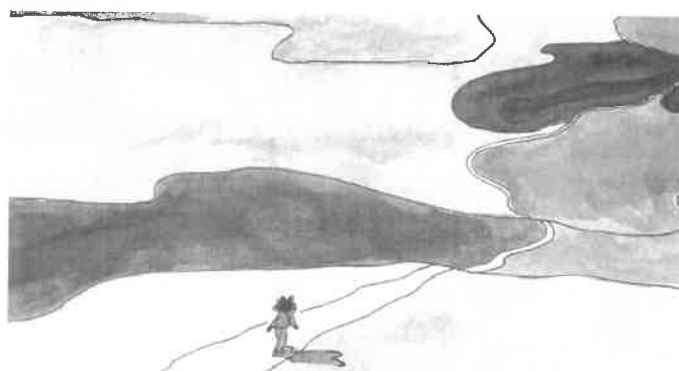
Don't Quit

When things go wrong, as they sometimes will,
When the road you're trudging seems all uphill,
When the funds are low and debts are high,
And you want to smile but have to sigh,
When care is pressing you down a bit,
Rest, if you must, but don't you quit.

Life is queer with its twists and turns,
As everyone of us sometimes learns,
And many a failure turns about,
When he might have won if he'd stuck it out,
Don't give up though the pace seems slow,
You might succeed with another blow.

Often the struggler has given up,
When he might have captured the victor's cup.
And he learned too late, when the night slipped down,
How close he was to the golden crown,

Success is failure turned inside out,
The silver tint of clouds of doubt,
And you never can tell how close you are,
It may be near when it seems afar,
So stick to the fight when you're hardest hit,
It's when things seem worst that you mustn't quit.



Anon,
<http://www.all-creatures.org/poetry/dontquit.html>

Questions about Don't Quit

1. The poet uses the verb *trudging* on line 2: can you suggest a synonym for this verb?
2. Quote the two lines in verse 2 which suggest that, when faced with a problem, you should never give up just because nothing seems to be happening, as you may find that with your very next try, things completely change.
3. Judging from the poem, which of these words best sums up the way the poet thinks we should be in the face of problems—*reckless*, *undaunted* or *despondent*? What in the poem tells you this?
4. Explain in your own words what the poet means by the lines: *Often the struggler has given up,
When he might have captured the victor's cup.*
5. Imagine a person or a group of people to whom this poem would be really good advice and say why you think it might help them.
6. No-one is sure who wrote *Don't Quit*. What kind of person do you think they would have been and why?

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Read a poem

- Read **Hold Fast to Dreams**. What is the message of this poem?
- Re-read it, really thinking about each line.
- What do you like about this poem? Is there anything that you dislike?
What patterns can you spot?

2. Revise metaphors

- Use the *Revision Card* to remind yourself about metaphors and similes.
- Write a sentence to remind yourself what a metaphor is and a sentence to remind yourself what a simile is.

3. Plan and write a Poem.

- Plan a poem called, 'Life Without Dreams'.
- On the *Planning Frame* write metaphors for a life without dreams and verbs that could show dreams ending. Use the *Ideas Sheets* or think of your own ideas.
- Now try turning your ideas into a poem. Choose your favourite ideas and see how they could fit and flow together.

Well done. Share your poems with a grown-up. Show them the verbs that you have chosen and the metaphors that you have used.

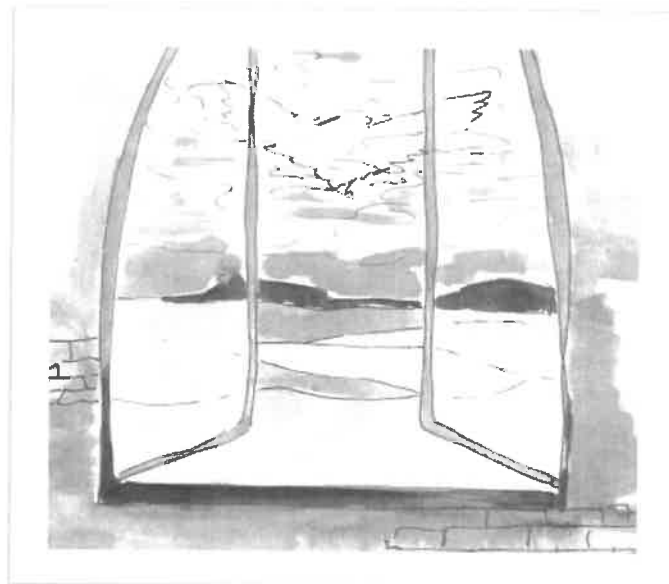
Try the Fun-Time Extras

- Share your poem with somebody else. Send it to them or make a recording so they can hear you or watch you.
- Make an illustration for your poem.
- Read Langston Hughes's Poem – *A Dream Deferred*. What do you think deferred must mean?

Hold Fast to Dreams

Hold fast to dreams
For if dreams die
Life is a broken-winged bird
That cannot fly.

Hold fast to dreams
For when dreams go
Life is a barren field
Frozen with snow.



Langston Hughes,
The Collected Poems of Langston Hughes,
Vintage, 1995

REVISION CARD: Metaphors

A metaphor is a comparison in which a place, person or thing is described as if it was another entirely different but similar thing.

Ben is a greedy pig.

Ben is not actually a pig - he's a boy - but the comparison to a greedy pig is very effective in telling us that Ben obviously tucks into his food like a farm animal at meal times!

Metaphors very often contain the verbs is or are, was or were.

The stars were jewels in the night sky.

Life is a journey.

The children in my class are a dream.

He was a big baby, moaning about the weather like that.

Metaphors are different to similes

Similes describe people, places, situations or things by comparing them to something that they are like.

Similes either contain the word like or the phrase as...as...

Ben ate like a snuffling pig.

Ben was as greedy as a pig.

*In **Hold Fast to Dreams**, Langston Hughes uses two metaphors to describe a life without dreams as if it is something else.*

a broken-winged bird
a barren field, frozen with snow

Planning Frame

Verbs for dreams ending

Metaphors for a life without dreams

Ideas Sheet

Possible verbs

wither decay bleed break shatter rupture implode
collapse break apart shrivel fracture crack fade
empty dry up blanch ossify calcify darken close
shut down evaporate disperse scatter are extinguished

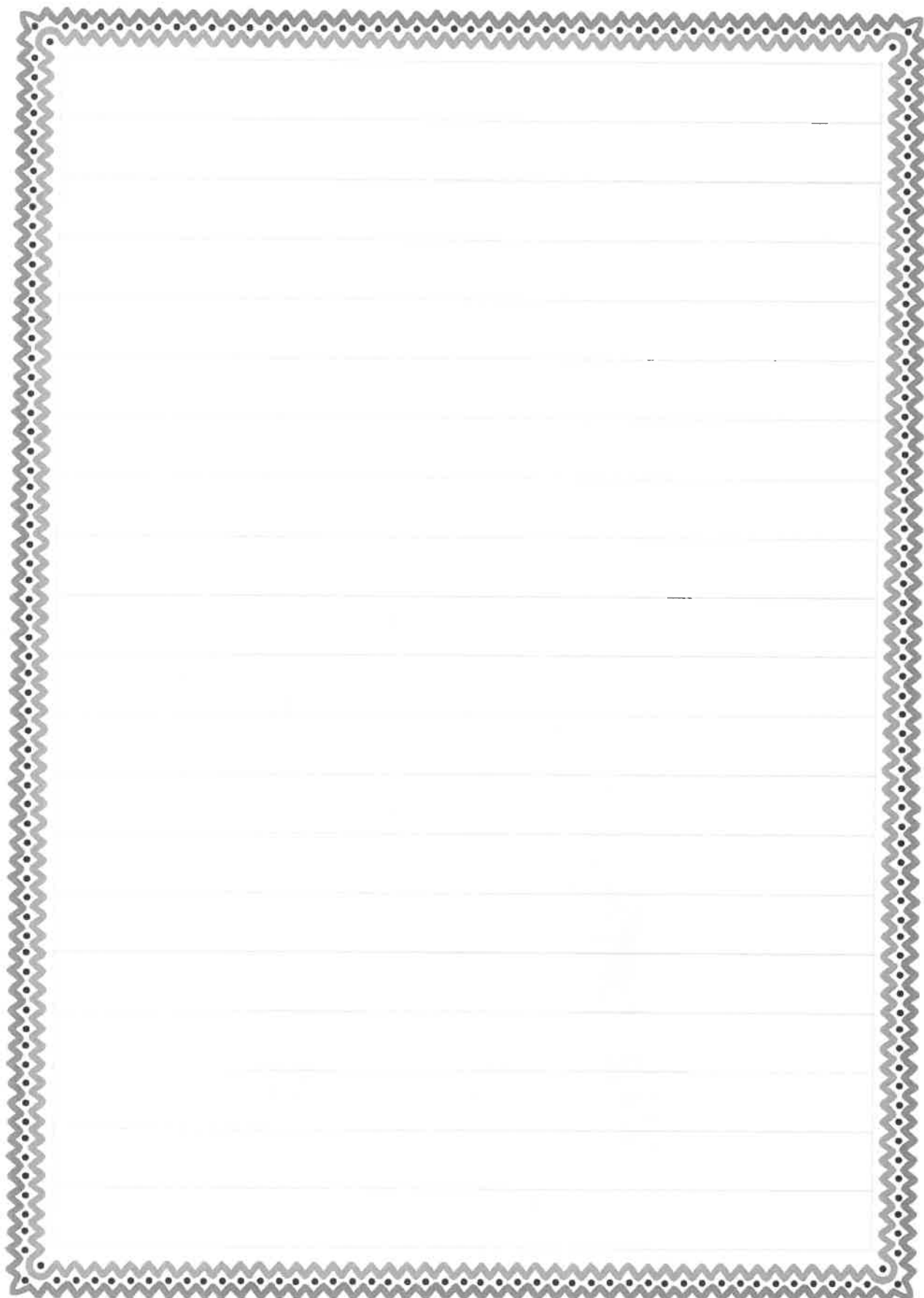
Possible metaphors

Something...

deserted poisoned abandoned shuttered broken
cracked homeless leafless sunless empty splintered
unloved cheerless unfinished lost smashed snuffed
out frozen buried



Life Without Dreams

A large rectangular area with a decorative border and horizontal lines for writing. The border is a grey zigzag line with small black dots at the peaks and valleys. Inside the border, there are 20 horizontal grey lines for writing, spaced evenly.

A Dream Deferred (Harlem)

What happens to a dream deferred?

Does it dry up

Like a raisin in the sun?

Or fester like a sore—

And then run?

Does it stink like rotten meat?

Or crust and sugar over

Like a syrupy sweet?

Maybe it just sags like a heavy load.

Or does it explode?

Langston Hughes,
The Collected Poems of Langston Hughes,
Vintage, 1995

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Re-read and watch a poem

- Watch Wilf Merttens perform his poem:
<https://www.youtube.com/watch?v=GGXCSulVamo>
- What does Wilf Merttens do when he performs his poem? Make a note of three things that you spot.
- If you haven't read the poem, re-read it.

2. Revise modal verbs

- Use the *PowerPoint on modal verbs* and listen to the teaching. If this is not possible, remind yourself using the *Revision Card*.
- Go through the poem: *What do you want to be?* and see if you can spot and highlight any modal verbs. There are only a few examples so look carefully.

3. Now for some writing

- Write *Sets of Three*. Write about your future using different modal verbs to show how certain you are.

Well done. Share your sentences with a grown-up and explain the modal verbs that you have chosen to use.

Try the Fun-Time Extras

- Practise performing *What do you want to be?* Try using some of the techniques that you saw Wilf Merttens use. Can you start to learn any of the poem off by heart?
- Share your performance with somebody else.

What do you want to be?

What do you want to *be*?

What do *you* want to be?

What do you want to be?

Hey listen kid, you don't have to tell me—

I'm just here to read some poetry.

You can leave now if you want.

You're completely free, you see.

But, before you go, let me tell you

I'm not here to tell you about birds and bees
and trees

and bananas and farmers and poetry things.

This poem is a question,

and I'm asking what you dream and feel and things.

You see, maybe you want to be famous.

Maybe you want to be an astronaut and explore Uranus.

Maybe you want to be the craziest stunt lady Hollywood's ever seen.

Maybe you want to buy some flashy mansion

and spend all your time keeping it clean.

Maybe you're a dancer and Bollywood's more your scene.

Maybe you're a natural,

Maybe you're going to have work hard at it.

Maybe you're a punk singer and you want to smash...it...up.

Maybe you like nice stuff.

Maybe to get it you're going to act all tough.

Maybe you're going to be sweet.

Maybe you're going to meet and greet.

Maybe you just want to help people.

Or maybe you want to be a success, like prove that you're the best.

Maybe you want to be a celebrity, or an important politician,
shake the hands of the mayor.
Then again, maybe you just don't care.
Maybe you're in it for the money.
Now *that's* a sweet honey.
People don't find anything funny when they're racing to be rich.
Maybe you want to be surrounded by iPhones and quick fixes,
Maybe your heart tremors and twitches round diamond rings and bling.
Maybe you want to see all the precious things that eBay can bring,
Or wear so many jewels you look like a King.
Maybe you just want to sing in the shower
and that's what makes you feel free.
Maybe all you need is the moon and a tree to feel happy.
Maybe you're a natural.
Maybe you're a doctor, a tinker, a tailor, an architect of bad behaviour.
You could be a soldier or a spy.
You could be the kind of guy who wonders why
the world is just as it is
Or how the plane can stay in the sky.
Maybe you're an expert at stopping a baby crying.
Maybe you'll be found frying a rich man's breakfast
in a gourmet restaurant.
Maybe you're a killer chef or an amazing painter.
You don't have to know now;
you can find out later what it is you really want to be.
Because maybe you just want to see the world.
Maybe you want to travel around and live out of a backpack.
Maybe you want to be a goth, wearing nothing but black
'cos maybe being blue just ain't you.
Maybe you just have to find out what's true and what's a lie in the
newspaper.
Maybe you'd make a kiss-ass journalist.
Then again maybe all that writing would turn you mentalist.

Maybe you want to make your own zombie movies,
spray ketchup all over your mate's face for fake blood,
Maybe you want to be a dirt biker all covered in mud,
or a rescue woman saving people in a flood.
Maybe you want to be a boxer, landing punches with a thud.
Maybe you want to do very little,
live life quietly up a mountain someplace,
stay up all night staring into space.
Maybe you want to raise a family.
Maybe you want to devote your life to a god.
Maybe you want to live in a caravan on the sea, serving cod and chips.
Maybe you'll be eternally swell if you can just kiss a sweet pair of lips

Whatever your dream, I'm just here to remind you that you can be whatever
you want to be and you can have *anything*, you see.
Now if you're like me you're going to want it all for free.
But like me and like lots of other people like me,
in the end you're going to see
that if you want to be what you want to be
then you are going to have believe
and work real hard.
Unless you just want to be a nobody, which is real easy.
But don't worry, 'cos this crazy game is not a race,
and it's not up to me or school or TV to tell you your place.
We don't know your dream, or even what you really mean
when you say what you want to be.
It's up to you.
You've got to decide for yourself you see.
Now, tell me - what do you want to be?

Wilf Merttens

Revision Card – Modal Verbs

Modal Verbs

We can use modal verbs to help us express how likely something is.

I might become a teacher.

I could learn to play an instrument.

The opportunities available to me may be different in the future.

I will choose the things that I do.

Modal Verbs

Modal verbs are placed before the verb they are **modifying**.



The opportunities
available **may change**.

Indicating Degrees of **Certainty** using Modal Verbs



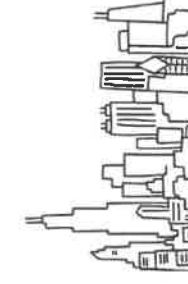
I might **play** for Manchester United.

I could **play** professionally.

I will **play** the best I can always. ✓

Which sentence is *most certain*?

Using Modal Verbs **negatively**



I might not live in this city.

I cannot **live** in this city.

I will not **live** in this city.

I may not **live** in this city.

Sets of Three

Write sentences about your future using different modal verbs.

| | Possible <i>e.g. I might play for Southampton.</i> | Possible <i>e.g. I could play professionally.</i> | Certain <i>e.g. I will always make time for football.</i> |
|--------------------------------|--|---|---|
| What job you will do | | | |
| What hobby you will have | | | |
| The place you will live | | | |
| Your greatest achievement | | | |
| The kind of person you will be | | | |

What do you want to be? – Modal Verbs

Answers

What do you want to *be*?

What do *you* want to be?

What do you want to be?

Hey listen kid, you don't have to tell me—

I'm just here to read some poetry.

You can leave now if you want.

You're completely free, you see.

But, before you go, let me tell you

I'm not here to tell you about birds and bees
and trees

and bananas and farmers and poetry things.

This poem is a question,

and I'm asking what you dream and feel and things.

You see, maybe you want to be famous.

Maybe you want to be an astronaut and explore Uranus.

Maybe you want to be the craziest stunt lady Hollywood's ever seen.

Maybe you want to buy some flashy mansion
and spend all your time keeping it clean.

Maybe you're a dancer and Bollywood's more your scene.

Maybe you're a natural,

Maybe you're going to have work hard at it.

Maybe you're a punk singer and you want to smash...it...up.

Maybe you like nice stuff.

Maybe to get it you're going to act all tough.

Maybe you're going to be sweet.

Maybe you're going to meet and greet.

Maybe you just want to help people.

Or maybe you want to be a success, like prove that you're the best.

Maybe you want to be a celebrity, or an important politician,

shake the hands of the mayor.
Then again, maybe you just don't care.
Maybe you're in it for the money.
Now *that's* a sweet honey.
People don't find anything funny when they're racing to be rich.
Maybe you want to be surrounded by iPhones and quick fixes,
Maybe your heart tremors and twitches round diamond rings and bling.
Maybe you want to see all the precious things that eBay can bring,
Or wear so many jewels you look like a King.
Maybe you just want to sing in the shower
and that's what makes you feel free.
Maybe all you need is the moon and a tree to feel happy.
Maybe you're a natural.
Maybe you're a doctor, a tinker, a tailor, an architect of bad behaviour.
You could be a soldier or a spy.
You could be the kind of guy who wonders why
the world is just as it is
Or how the plane can stay in the sky.
Maybe you're an expert at stopping a baby crying.
Maybe you'll be found frying a rich man's breakfast
in a gourmet restaurant.
Maybe you're a killer chef or an amazing painter.
You don't have to know now;
you can find out later what it is you really want to be.
Because maybe you just want to see the world.
Maybe you want to travel around and live out of a backpack.
Maybe you want to be a goth, wearing nothing but black
'cos maybe being blue just ain't you.
Maybe you just have to find out what's true and what's a lie in the newspaper.
Maybe you'd make a kiss-ass journalist.
This is a shortened form of: Maybe you would make a kiss-ass journalist

Then again maybe all that writing would turn you mentalist.
Maybe you want to make your own zombie movies,
spray ketchup all over your mate's face for fake blood,

Maybe you want to be a dirt biker all covered in mud,
or a rescue woman saving people in a flood.
Maybe you want to be a boxer, landing punches with a thud.
Maybe you want to do very little,
live life quietly up a mountain someplace,
stay up all night staring into space.
Maybe you want to raise a family.
Maybe you want to devote your life to a god.
Maybe you want to live in a caravan on the sea, serving cod and chips.
Maybe you'll be eternally swell if you can just kiss a sweet pair of lips
This is a shortened form of 'Maybe you will be eternally swell...'

Whatever your dream, I'm just here to remind you that you can be
whatever you want to be and you can have *anything*, you see.
Now if you're like me you're going to want it all for free.
But like me and like lots of other people like me,
in the end you're going to see
that if you want to be what you want to be
then you are going to have believe
and work real hard.
Unless you just want to be a nobody, which is real easy.
But don't worry, 'cos this crazy game is not a race,
and it's not up to me or school or TV to tell you your place.
We don't know your dream, or even what you really mean
when you say what you want to be.
It's up to you.
You've got to decide for yourself you see.
Now, tell me - what do you want to be?

Wilf Merttens

What to do today

IMPORTANT Parent or Carer – Read this page with your child and check that you are happy with what they have to do and any weblinks or use of internet.

1. Watch and join in with a poem.

- Watch Wilf Merttens perform his poem and try to join in, now that you know it so well. *You should have studied it earlier this week. (Days 1&4)*
<https://www.youtube.com/watch?v=GGXCSuIVamo>
- Which part of the poem do you find it easiest to speak out loud? Which are the trickiest parts?

2. Plan and write a poem

- Use the *Poem Planner* to help you think of ideas for a new version of the poem. Read the prompts and note your ideas down.
- Write your poem out.

3. Practise a performance

- Practise performing your new poem. Think about the speed that you read, the rhythm of your poem, your expression and any actions.

Well done. Now share your performance with somebody else. What do they notice and like best about your poem?

Try the Fun-Time Extras

- Highlight the lines in your poem that you think could best have a matching picture and then make your illustrations.
- Record your performance of your poem and share it with somebody else.

What do you want to be?

What do you want to *be*?

What do *you* want to be?

What do you want to be?

Hey listen kid, you don't have to tell me—

I'm just here to read some poetry.

You can leave now if you want.

You're completely free, you see.

But, before you go, let me tell you

I'm not here to tell you about birds and bees
and trees

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This poem is a question,

and I'm asking what you dream and feel and things.

You see, maybe you want to be famous.

Maybe you want to be an astronaut and explore Uranus.

Maybe you want to be the craziest stunt lady Hollywood's ever seen.

Maybe you want to buy some flashy mansion

and spend all your time keeping it clean.

Maybe you're a dancer and Bollywood's more your scene.

Maybe you're a natural,

Maybe you're going to have work hard at it.

Maybe you're a punk singer and you want to smash...it...up.

Maybe you like nice stuff.

Maybe to get it you're going to act all tough.

Maybe you're going to be sweet.

Maybe you're going to meet and greet.

Maybe you just want to help people.

Or maybe you want to be a success, like prove that you're the best.

Maybe you want to be a celebrity, or an important politician,

shake the hands of the mayor.
Then again, maybe you just don't care.
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Now *that's* a sweet honey.
People don't find anything funny when they're racing to be rich.
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Maybe you want to see all the precious things that eBay can bring,
Or wear so many jewels you look like a King.
Maybe you just want to sing in the shower
and that's what makes you feel free.
Maybe all you need is the moon and a tree to feel happy.
Maybe you're a natural.
Maybe you're a doctor, a tinker, a tailor, an architect of bad behaviour.
You could be a soldier or a spy.
You could be the kind of guy who wonders why
the world is just as it is
Or how the plane can stay in the sky.
Maybe you're an expert at stopping a baby crying.
Maybe you'll be found frying a rich man's breakfast
in a gourmet restaurant.
Maybe you're a killer chef or an amazing painter.
You don't have to know now;
you can find out later what it is you really want to be.
Because maybe you just want to see the world.
Maybe you want to travel around and live out of a backpack.
Maybe you want to be a goth, wearing nothing but black
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But like me and like lots of other people like me,
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then you are going to have believe
and work real hard.
Unless you just want to be a nobody, which is real easy.
But don't worry, 'cos this crazy game is not a race,
and it's not up to me or school or TV to tell you your place.
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It's up to you.
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Wilf Merttens

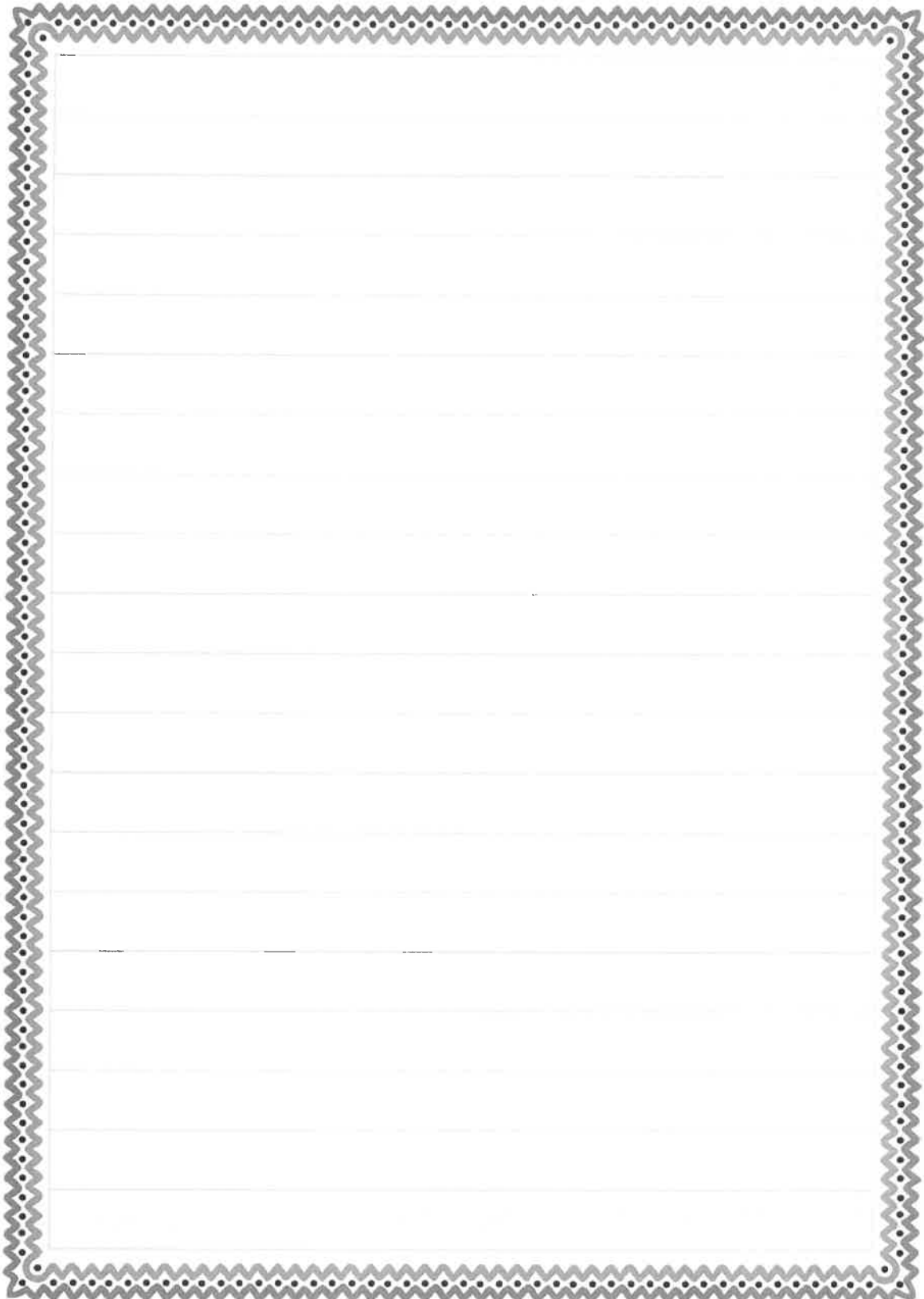
Poem Planner

| Checklist <i>In my poem I need to...</i> | <i>My ideas and plans</i> |
|---|---------------------------|
| Compose an intro line like <i>What do YOU want to be?</i> | |
| <div>Section 1</div> <p>Compose 6 high quality <i>Maybe you...</i> lines, detailing the jobs or things someone might want to do</p> <p>Alliterate a profession and its descriptive adjective in two of the lines (<i>Maybe you want to be an audacious actor, Maybe you want total control of a Massey Ferguson tractor</i>)</p> <p>Consider including superheroes, impressive and not so impressive: Wonder Woman...but also Odd Socks Matching Up Woman, etc.</p> <p>Rhyme at least two pairs of your 3 pairs of lines <i>Maybe you want to reach up, up and out to the stars</i> <i>Or maybe you want to lovingly smooth the dents out of vintage cars</i></p> | |

| | | |
|-----------|---|--|
| Section 2 | <p>Compose a line like, <i>But whatever you do, you've got to dream big, because life without dreams is...</i></p> <p>Write 2 powerful lines describing life without dreams using metaphors (...<i>a broken bottle, its precious contents spilt upon the step</i>)</p> | |
| Section 3 | <p><i>Some people say...</i></p> <p>Use the modal verbs of obligation in sentences saying what parents or teachers might tell someone they had to do:</p> <p>You should...</p> <p>You ought to...</p> <p>You must...</p> <p><i>But don't worry about what others tell you to do:</i></p> <p>Use the modal verbs of ability</p> <p>Instead,</p> <p>You can</p> <p>You could</p> <p>You might</p> | |
| | Compose an outro line like, <i>Remember you're free to choose - what do YOU want to be?</i> | |

A New Poem

Write your poem here.

A large rectangular box designed for writing a poem. It features a decorative border with a repeating zigzag and dot pattern. Inside the box, there are 15 horizontal lines for writing, with a slightly larger margin at the top for a title or initial thought.

