Jtinchingbrooke fochool
Inspiring excellence Fulfilling potential

Hinchingbrooke Transition Year 6 Get Ahead Booklet

Summer 2017

Hello!
On behalf of the Year 7 team, welcome to Hinchingbrooke school! We hope you will enjoy your time here and that you are ready to take advantage of all that our school has to offer.

The more you put in to life at Hinchingbrooke, the more you will get back from it. We want you to feel ready and prepared for secondary school life and as part of this, we would like you to complete a few tasks between now and september.

These tasks will help you to prepare for some of your new lessons and introduce you to some of the topics you will be studying.

Your teachers for English, Maths, science, History and Geography will ask to see this work in your first week and you will stick it in to your new exercise books so please complete all work on paper and keep it safe until september. You can produce work by hand or do it on a computer and print it out.

If you have any questions about the tasks you can email lowerschool@hinchble.cambs.sch.uk or alternatively ask any of our teachers when they come to visit. You will also meet some teachers on Taster Day so could ask questions then too.

To help us to get to know you better, we would also like you to complete a couple more tasks over the summer holidays, which you will need to bring with you on your first day in september:

## "All About Me Capsule"

On your first day in September bring a shoebox or equivalent with your name and form group written clearly on it. Inside place a few things that tell people about you. You could also
 decorate the box if you wish. Please make sure you do not place anything valuable in the box or anything that you do not wish to risk being lost or damaged.
We will be using these boxes as part of a form time activity and House Points will be awarded for the best boxes


Again, if you have any questions you can speak to your Form Tutor or any of the Lower School team on Taster Day.

## English

## These tasks will help to prepare you for your Year 7 English by focusing on reading and writing skills you will use in lessons

## Summer Reading Challenge

## Read at least 3 books from the following:

> A book you own but haven't read
> A book that was made into a movie A book you pick solely for the cover

A book your friend loves
A book with a colour in the title
A book you loved...read it again
A book based on a true story
A book with a Lion, Witch or Wardrobe
A book by an author you have read before
A book published this year
A book of poems
A book that is more than 10 years old
A book "everyone" but you has read
A Diary
A book with a cat on the cover
A book your parents read when they were your age
A book that is first in a series
A book that takes place in another country
A book with someone's name in the title
A book that you think looks boring

## Writing

## Complete at least one of the following tasks:

- Write a review of one of the books you have read for the Reading Challenge
- Keep a diary for a week
- Creative Writing. Write either:


## An acrostic poem OR

A short story (no more than 1 side of $A 4$ )

Your poem or story should be entitled either 'LEAVING' or 'NEW BEGINNINGS'

## What will I study in Year 7 English?

|  | Term 1 |  | Term 2 |  | Term 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & N \\ & \underset{\pi}{\pi} \\ & \underset{\sim}{2} \end{aligned}$ | Myths/ Legends \& Beowulf <br> Writing task: Create your own myth | The Arthurian Legend <br> Writing task: Screenplay for new Merlin episode | Shakespearean Comedy <br> Reading task: 'How he made them laugh'. How does Shakespeare create humour in his comedies? | The Romantics Reading task: 'From Daffodils to the Guillotine': the Romantic Poets and the French Revolution | Victorian Monsters <br> 1. Writing task: HBK Horror! Create and describe your own <br> Jothic ghoul <br> 2. Speaking task (role play): <br> Interview with Jekyll to show his split personality | Sherlock Holmes <br> Writing task: Continuing Conan! Write a Sherlock style narrative in the style of Arthur Conan Doyle |

## History

## King Canute

In 1016, the Danish (or Viking) King Sweyn died and his son Canute became King. Canute became king of England, Denmark, Norway and southern Sweden. Canute brought peace and prosperity to England. He supplied a firm, fair government and maintained an army. Canute said: "I have vowed to God to govern my kingdoms with equity and to act fairly in all things". Although he was a Dane (a Viking), Canute tried to please the English people he was ruling and did everything he could to bring the English people and the Danes together in harmony. He even chose Englishmen for the Church and for his court. Two of his sons succeeded him as kings in 1035 and 1042: Harold I, known as Harefoot, and Harthacanute.

Using your own research and the information above, complete the following tasks:

1. Add as many different points as you can to the spider diagram below. One has been done for you.

2. Using information from the paragraph above, write an answer to the following question.

## "Why was King Canute powerful?" (You can use the sentences below if you get stuck)

King Canute was a powerful ruler.
For example he...
This made him powerful because...
He also ...
This gave him power because...
3. Using books or the web, research and explain one
interesting fact about King Canute.

I found out that...


## WANT TO IMPRESS?

You could begin by visiting this website (http://www.historyextra.com/article/bbc-history-magazine/8-things-you-probably-didn\�\�\�t-know-about-king-cnut-viking) and could display your fact creatively as a poster!

## What will I study in Year 7 History?

|  | Term 1 |  | Term 2 |  | Term 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Norman Conquest | Medieval Middleswell | Wars of the Roses | The Tudors | Civil War and Revolution | Industrial <br> Revolution |

If you would like to find out more about History at Hinchingbrooke, please use the link below to access our department website.
http://www.hinchingbrookeschool.co.uk/history/year7and8\ history.htm

## Geography

## These tasks will help to prepare you for your Year 7 Geography lessons by focusing on knowledge and skills you will use in lessons.

## Task: Mapping the location of volcanoes.

You should complete this task on one piece of A4 plain paper. You could complete this work on the computer, but it is not essential! To see an example of this work, use the link at the bottom of this page.

1. Add a title to your work: Mapping the location of volcanoes.
2. Add a world map to your work.
3. Find out where the following volcanoes are located and put a dot to show their location on your world map: Mount St Helens, Mount Vesuvius, Mount Etna, Mount Pinatubo, Eyjafjallajökull, Nevado del Ruiz, Soufrière Hills, Popocatépetl, Cotopaxi and Mount Nyiragongo.
4. Around the edge of your map, add a 'fact file' box for each volcano. Each box should include;

- The name of the volcano
- Which continent it is in
- Which country it is in
- The last time it erupted

5. Add an arrow to connect the dot on the map to the volcano's fact file box.

## Taking it further...

For an extra level of challenge, you could complete research about the Yellowstone supervolcano and answer the questions below;

1. Where is the Yellowstone supervolcano located?
2. How does a supervolcano look different to a normal volcano?
3. How often do supervolcanoes (e.g. Yellowstone supervolcano) erupt?
4. What would be the likely effects if a supervolcano erupted?

## What will I study in Year 7 Geography?

|  | Term 1 |  | Term 2 |  | Term 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Earthquakes and Volcanoes | Japan | Energy and Sustainability | Brazil | Geographical Skills | Coasts and Tourism |
|  |  |  |  |  |  |  |

If you need any help with this work, or would like to find out more about Geography at Hinchingbrooke, please use the link below to access our department website. There is a specific page for Year 6 Transition Work.

## Science



If you wanted to build a Lego house, you would use lots of different pieces: roof tiles, doors, window and plain bricks. When you put them together you can makes something amazing!

Living animals and plants are just like Lego houses; they are made of lots of smaller pieces which, when put together, make something amazing. But what are living things made of?


They are made of cells!


These are human cheek cells you will get to see these under the microscope when you come to Hinchingbrooke in Year 7.

## Find out more about animal cells.

You are made of cells, so you are going to find out why they are so important. Below are three tasks: bronze, silver and gold. Everyone needs to do the bronze task. You can then choose to move onto silver, or to complete all three tasks. If you complete the gold task, take a picture of your work and e-mail it to me: eco@hinchbk.cambs.sch.uk. The best will win a small prize when you start in Year 7.

## Bronze task:

Label the diagram of the animal cell.


| Nucleus | cell membrane | cytoplasm | mitochondria |
| :--- | :--- | :--- | :--- |

## Silver task:

Research what each of these four things do. Be careful not to make your answer too complicated; use KS2 or KS3 websites.

| Part of the cell | What it does |
| :--- | :--- |
| Nucleus |  |
| Cell membrane |  |
| Cytoplasm |  |
| Mitochondria |  |

## Gold task:

Make a 3-D model of an animal cell and label the four parts you have investigated above.

## Maths

The focus of the following tasks is to further embed your numeracy skills and to help you develop your problem solving skills and resilience. We want our students at Hinchingbrooke to not only be able to 'do the maths' but to now start building on figuring out what maths the question wants them to do.

Numeracy is the foundation of all maths and is effectively your passport to the world! Solid numeracy skills will enable you to access any problem solving type questions as once you have figured out what maths the question wants you to do you can then use and apply your numeracy skills to solve the problem.

These tasks will also build on your resilience. You might not get the answer correct first time, it might not be obvious to you what maths, method or approach you should use. But you must not give up! Try different strategies; for example get a friend or someone at home to check your work.

Once you believe that you have either got the correct answer or you have tried more than two strategies or approaches, click on the 'Youtube' link to watch a video showing you what the correct answer is and a suggested approach.

You are not expected to try every single question but we would strongly recommend choosing at least three numeracy skills to work on and then three problem solving questions to work on. If you want a challenge then please have a go at completing six problem solving questions.

Good luck and enjoy it!

| Numeracy Skills | Problem - Solving Questions |
| :--- | :--- |
| BIDMAS | Use each number once |
| Column Method | Money problems |
| Long Multiplication | Working backwards |
| Division | Proportion and ratio |
| Place Value | Problem solving (general) |
| Multiply by 10, 100, 1000 |  |
| Fractions, decimals and percentage |  |
| equivalence |  |



## 1)DMAS

1). $7+6 \times 2$
2). $5 \times 3+4$
3). $9 \div 3+5$
4). $7-10 \div 2$
5). $7+12 \div 4$
6). $21 \div 7-2$
7). $12-42 \div 6$
8). $14+30 \div 5$
9). $19-15 \div 3$
10). $12+18 \div 6$
11). $(3+5) \times 2$
12). $12 \div(7-3)$
13). $15 \times(9-7)$
14). $(16-13) \div 3$
15). $(11+9) \div 4$
16). $7+24 \div 6$
17). $22-6 \times 3$
18). $4 \times 5-12$
21). $4+3^{2}$
25). $(3+2)^{2}$
22). $17-4^{2}$
29). $(2 \times 4)^{2}$
26). $(14 \div 2)^{2}$
19). $40 \div(12-4)$
20). $(24-9) \div 3$
23). $10-2^{3}$
27). $(6-2)^{2}$
24). $7+5^{2}$
30). $10+7^{2}$
31). $3^{3}-7$
28). $6-2^{2}$
34). $20 \div 2^{2}$
38). $(4+6)^{3}$
35). $36-3^{2}$
32). $7^{2}-20$
33). $3 \times 4^{2}$
37). $6^{2} \div 4$
42). $(3+9) \div(2+1)$
39). $4^{3} \div 8$
36). $(16 \div 8)^{2}$
41). $6+12 \div 4-2$
46). $5 \times(2+3)-4$
43). $6+4 \div 2+3^{2}$
40). $4 \times 5^{2}$
44). $(6+2)^{2}-1$
47). $36 \div(6 \div 2)^{2}$
48). $(8 \div 4) \times 3-2^{2}$

| Q.g. |  |  |
| :--- | ---: | :--- |
|  | $\frac{(8 \div 4) \times 3-2^{2}}{2 \times 3-\frac{2^{2}}{2}}$ | do brackets first |
|  | $\frac{2 \times 3-4}{6}-4$ | do indices next |
|  | 2 | do subtract last |
| RINAL ANSWER $=2$ |  |  |

## Answers below









Using the same rule, write in the missing numbers.


3 Circle the number that is closest to 300

You Tube $338 \quad 3030 \quad 288 \quad 313$

130
12
These are the prices of cheese in a shop.


Cottage cheese 45p for 100 grams

Mina buys $\mathbf{2 0 0} \mathbf{g}$ of Cheddar cheese and $\mathbf{1 5 0} \mathrm{g}$ of Edam cheese.



He gives 18 of the chocolates to his friends.

How many chocolates are left in the box?

Holly has a box of mints.
She has 10 friends.

She gives them 5 mints each.


She has 13 mints left.

How many mints were in the box at the start?


4 Liam, Sarah and Amy buy lunch at a salad bar.

## 2010A KS2 Q4

salad bar

| Salads |  | Desserts |  |
| :--- | ---: | :--- | ---: |
| cheese | $£ 1.20$ | banana | $25 p$ |
| egg | $90 p$ | apple pie | $50 p$ |
| tuna | $£ 1.60$ | yogurt | $35 p$ |

Liam has $£ 2.50$ to spend.
He buys a tuna salad and an apple pie.

How much money has he got left?

Dev and Joe each buy a book.
Dev pays with a $£ 5$ note and gets $£ 1.05$ change.
Joe's book costs £7

How much more does Joe's book cost than Dev's book?


Amy chooses two of these cards.


2
She adds the numbers on her two cards together. She rounds the result to the nearest 10

Her answer is 60

## 2010A KS2 Q2

Which two cards did Amy choose?


Sarah buys a cheese salad and a yogurt.

Amy buys an egg salad.

How much more does Sarah pay than Amy?


Kirsty sold her 12 toffee apples for 50p each.

How much money did she collect?

## You <br> Tubl

Calculate $560 \times 28$


2012A KS2 Q18


## You <br> Tube



Calculate $602 \times 57$



Calculate $417 \times 20$



## Division



Seb buys some cottage cheese for $£ 1.35$

How many grams of cottage cheese does he get?

## You Tule

Calculate $144 \div 6$
2012A KS2 Q14


One rack holds 25 CDs.

David has 83 CDs.

How many racks does he need to hold all his CDs?


You Table

$$
\text { Calculate } 900 \div(45 \times 4)
$$



You Tube A packet contains 1.5 kilograms of guinea pig food. Remi feeds her guinea pig $\mathbf{3 0}$ grams of food each day.

## 2003A KS2 Q19

> How many days does the packet of food last?


11 Calculate $847 \div 7$
How many bricks does he use?

## 2003A KS2 Q11

Each brick is 12 cm long.

## 2004A KS2 Q21

Martin makes a line of bricks 132 cm long



22 Write in the missing number.
You
2003A KS2 Q22

$$
50 \div \square=2.5
$$

Circle the number that is closest to 300

## You

Tube
$\begin{array}{lllll}338 & 3030 & 288 & 313 & 130\end{array}$

## 2011A KS2 Q1

Holly made a number using these digit cards.


The hundreds digit is greater than 4 Holly's number is odd.

What number did Holly make?


2008A KS2 Q14 Here are four digit cards


Use each digit card once to make the decimal number nearest to 20


2012A KS2 Q2
Write these prices in order, starting with the smallest.

smallest


## 2010A KS2 Q1

Write these prices in order, starting with the smallest.
$\begin{array}{lllll}72 p & £ 2.70 & £ 0.27 & £ 2.20\end{array}$

smallest

## 2007A KS2 Q16

Tube

Circle all the numbers that are greater than 0.6
0.5
0.8
0.23
0.09
0.67

Write these numbers in order of size, starting with the smallest.

901
1091
190

smallest

## 2002A KS2 Q9

Tuhe


Choose three of these number cards to make an even number that is greater than 400


This chart shows the amount of money spent in a toy shop in three months.


[^0]2005A KS2 Q9

## Here are some digit cards.



Write all the three-digit numbers, greater than 500 , that can be made using these cards.

One has been done for you.
626

## 2001A KS2 Q2



Write these amounts of money in order of size, starting with the smallest amount.

smallest

## 2000A KS2 Q18

Circle two different numbers which multiply together to make 1 million.

$$
\text { * } \begin{array}{lllll}
10 & 100 & 1000 & 10000 & 100000
\end{array}
$$

Stepan says,
'In November there was a 100\% increase on the money spent in October'.

```
Is he correct?
Circle Yes or No.
Yes / No
```

Explain how you can tell from the chart.


More practice with the multiply symbol
1). $6 \times \ldots=60 \quad$ 2). $\_$_ $\times 100=500$ 3). $9 \times 1000=$ $\qquad$
4). $\ldots \times 10=70 \quad 5)$. $3 \times$ $\qquad$ $=3000 \quad 6$ ).
_ $\times 10000=80000$
7). $\left.16 \times 1000=\_\quad 8\right)$.
_ $\times 100=5000$
9). $73 x \quad=730$
10). $\left.\left.\_\times 100=5600 \quad 11\right) \cdot 68 \times 1000=\ldots \quad 12\right) . \_\times 1000=93000$
13). $4.7 \times 10000=$
14). $\quad \times 10=67$
15). 9.7 x
_ $=97000$
16). $0.8 \times \underset{x}{ }=800$
17). $1.7 \times 1000=$ $\qquad$ 18). $6.3 x \quad-=63$
19). $31.3 \times \ldots=313020$ ). $\ldots \times 100=123021$ 21). $\ldots 1000=89300$
22). $47.5 x \neq 475$ 23). $0.5 x \neq 5000 \quad 24) .2 .1 \times 100=\ldots$
25). $3.42 \times 1000=$ $\qquad$ 26). $5.62 \times$ $\qquad$ $=562$
27). $9.03 \times \ldots=9030$
28). $-\quad x 100=341 \quad 29$ ). $\qquad$ $\times 10=3.4 \quad 30) .6 .01 \times 1000=$ $\qquad$ 31). $0.67 x \quad=6700 \quad 32$ ). _ $\times 10=6 \quad 33$ ).
$\ldots \times 1000=70$

1）． $60 \div-=6$
2）．$\ldots \div 100=5$
3）． $9000 \div 1000=$
4）．$-\div 10=70$
7）． $1600 \div 1000=\_$8）．$\quad \_\div 100=5.6$ 9）． $7300 \div \_=730$
$\qquad$
5）． $3000 \div-=30$
6）．$-\div 100=80$

10）．$\ldots \div 100=720$
11）． $680 \div 1000=$
12）．$\ldots \div 1000=9.3$
13）． $47 \div 100=$ $\qquad$ 14）．$\_\div 10=0.6$
15）． $970 \div \ldots=9.7$
16）． $800 \div \ldots=0.8 \quad$ 17）． $170 \div 1000=$
18）． $6.3 \div-=0.63$
19）． $313 \div-=3.13$
20）． $\qquad$

$$
\div 100=12.3
$$

$$
\text { 21). } \ldots \div 1000=89.3
$$

22）． $475 \div-=47.5$
23）． $50 \div-=0.5$
26）． $562 \div-=56.2$
27）． $903 \div$ $\qquad$ $=9.03$
25）． $34.2 \div 1000=$
29）．$-\div 10=3.4$
30）． $601 \div 100=$ $\qquad$
28）．$\ldots \div 100=34.1$
32）．$\ldots \div 10=6$
33）．$-\div 1000=70$
31）． $67 \div \ldots=0.67$ 32）．$\ldots \div 10=6 \quad 33$ ）．$\ldots \div 1000=70$


## More practice－multiply ANSWERS

| 800 | $\cdot(9 \mathcal{L}$ | 080S | －（¢¢ | $00 \mathcal{L}$ | $\cdot(t \varepsilon$ | LOO | $\cdot(\mathcal{E}$ | 90 | $\cdot(\tau \varepsilon$ | 0000I | $\cdot($ IE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0109 | －（0¢ | 七E゙0 | －（6Z | เゼを | $\cdot(8 乙$ | 000I | $\cdot(L Z$ | 00I | $\cdot(9 z$ | 0ZセE | $\cdot\left(¢ \_\right.$ |
| 01Z | $\cdot(\downarrow$ ¢ | 0000I | $\cdot(\varepsilon z$ | 0I | $\cdot($ こと | E． 68 | －（IZ | \＆゙ZI | $\cdot(0 z$ | 00I | $\cdot(6 \mathrm{I}$ |
| 0I | －（8I | 00LI | $\cdot($ I | 000I | $\cdot(91$ | 0000I | －（¢ I | L＇9 | $\cdot(\downarrow \mathrm{I}$ | 000Lt | $\cdot(\varepsilon I$ |
| E6 | ＇（ZI | 00089 | $\cdot(\mathrm{II}$ | 95 | －（0I | 0I | ＇（6） | 0 S | ＇（8） | 0009I | $\cdot(L$ |
| 8 | －（9 | 000I | $\cdot$（¢ | $L$ | $\cdot(t$ | 0006 | － $\mathcal{E}$ | S | $\cdot(\tau$ | 0I | ＇（ ${ }^{\text {l }}$ |

## More practice－divide ANSWERS







Circle the fraction that is greater than $\frac{1}{2}$ but less than $\frac{3}{4}$
2010A KS2 Q20

$$
\begin{array}{lllll}
\frac{7}{8} & \frac{2}{5} & \frac{1}{3} & \frac{5}{8} & \frac{3}{6}
\end{array}
$$

Two of the fractions below are equivalent.

Circle them.
$\frac{2}{3}$
$\frac{6}{10}$
$\frac{9}{12}$
$\frac{10}{15}$
$\frac{16}{20}$

This pie chart shows the ingredients to make a food mixture for wild birds.


Estimate the percentage of mixture that is suet.


Mina uses 100 grams of millet in the mixture.

Estimate how many grams of sunflower seeds she should use.



What percentage of the children predicted that Stefan would win?


10 children predicted the winner of the race correctly.


This pie chart shows how the children in Class 6 best like their potatoes cooked.

## You Tube



32 children took part in the survey.
Look at the four statements below.

## 2006A KS2 Q20



The children counted 60 ash trees.

Use the pie chart to estimate the number of beech trees they counted.

```
For each statement put a tick (\checkmark) if it is correct.
Put a cross (x) if it is not correct.
```

10 children like chips best.
$25 \%$ of the children like mashed potatoes best. $\frac{1}{5}$ of the children like roast potatoes best.

12 children like jacket potatoes best.


The four sums below can be completed using only the numbers 1 to 8

Use each number once to complete the sums.
One sum has been done for you.

$$
\begin{aligned}
& 1 \begin{array}{c}
1 \\
3
\end{array} 4 \quad 5 \quad \not 8 \quad 7 \quad 8 \\
& 1+\begin{array}{|}
5 \\
& +5 & =12
\end{array}
\end{aligned}
$$

$$
\mathbb{N}_{2}+\square+\square=12
$$

$$
3+\square+\square=12
$$

$$
6+\square+\square=12
$$

2008A KS2 Q14
Here are four digit cards.


Use each digit card once to make the decimal number nearest to 20



2007 A KS2 Q2

## You

 TubeCircle one number in each box to make a total of 1000

| 150 |
| :--- |
| 250 |
| 350 |
| 450 |

## 2004A KS2 Q5

Use each number card once to make the answer to each calculation an even number.


$9+$


## EsE Problem' <br> 

Megan and Chen are washing cars.

Megan gets $£ 39$ and Chen gets $£ 55$

## You

 TubsThey share what they get equally between them.

How much does each of them get?


2013A KS2 Q8
The table shows the cost of a new football kit.

| Item | Cost |
| :--- | :---: |
| Shirt | $£ 8.75$ |
| Shorts (1 pair) | $£ 5.95$ |
| Socks (1 pair) | $£ 4.15$ |

Altogether, how much does the complete football kit cost?

## You Tube



## 2013A KS2 Q9

## 2013A KS2 Q16

Alfie buys two books, each at the same price.

He pays with a $£ 10$ note and gets $£ 2.30$ change.

One has been done for you.
$£ 1.03$ can be made with exactly 1 coin.
$£ 1.03$ can be made with exactly 2 coins.
$£ 1.03$ can be made with exactly 3 coins.

$£ 1.03$ can be made with exactly 4 coins.

## 2012A KS2 Q2

Write these prices in order, starting with the smallest.

## 2010A KS2 Q1

Write these prices in order, starting with the smallest.
72p
£2.70
£0.27
£7.20
£2.07

$\Sigma$
smallest

£20.05

$\square$
$\square$
$\square$

## 2012A KS2 Q12

These are the prices of cheese in a shop.


Mina buys $\mathbf{2 0 0} \mathbf{g}$ of Cheddar cheese and $\mathbf{1 5 0} \mathbf{g}$ of Edam cheese.
How much does she pay altogether?


Seb buys some cottage cheese for $£ 1.35$

How many grams of cottage cheese does he get?


Sarah buys a cheese salad and a yogurt.

Amy buys an egg salad.

How much more does Sarah pay than Amy?

## How much money has he got left?

Liam has $£ 2.50$ to spend.
He buys a tuna salad and an apple pie.
Liam, Sarah and Amy buy lunch at a salad bar.

| salad bar |  |  |  |
| :--- | ---: | :--- | :--- |
| Salads |  | Desserts |  |
| cheese | $£ 1.20$ | banana | $25 p$ |
| egg | $90 p$ | apple pie | $50 p$ |
| tuna | $£ 1.60$ | yogurt | $35 p$ |




RECOMIIIENDED - mental wathe TES mesource Interactive + SeLfillarking GLIK HERE

The numbers in the two trianales add up to the number in the square.


Using the same rule, write in the missing numbers.


## 2010A KS2 Q23

## You Tuhe

Write the missing number to make this calculation correct.

# Working Backwards 



2013A KS2 Q12

Complete these calculations.


Holly takes half an hour to walk from home to school.

She arrives at school at 8:25am.

At what time did she leave home?


Dev leaves school at half past three
He arrives home at ten past four.


How many minutes did it take him to get home?

'double the number in the square and add the number in the triangl to make the number in the circle'.


## 2004A KS2 Q1

Write in the missing numbers.

## 2002A KS2 Q2

Write in the missing numbers.
$\square+85=200$
$4 \times \square=120$
$120-51=\square$
$5 \times 70=$
$4 \times$
$=200$



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## 2013A KS2 Q15

Four children are in a race.

Chen is 2 metres ahead of Alfie.

Nina is 5 metres behind Megan.

Alfie is 3 metres behind Megan.

Write the names of the runners in order, starting with the child who is furthest ahead.
furthest
ahead

## 2012A KS2 Q21

## You

 TubeMina has 5 more marbles than Kirsty.

Kirsty has 2 more marbles than Seb.

Altogether they have $\mathbf{3 0}$ marbles.
How many marbles does each child have?



## 2013A KS2 Q24



A cake costs 15 p more than a biscuit.
Megan bought a cake and two biscuits for 90 p.

How much do a cake and a biscuit each cost?


## 2010A KS2 Q15

An iced cake costs 10p more than a plain cake.

Sarah bought two of each cake.

They cost $£ 1$ altogether.


What is the cost of an iced cake?


## 2006A KS2 Q23

2004A KS2 Q22
$\boldsymbol{k}$ stands for a whole number.
$\boldsymbol{k}+\mathbf{7}$ is greater than 100
$\boldsymbol{k}-\mathbf{7}$ is less than 90
Liam thinks of a number.
He multiplies the number by 5 and then subtracts $\mathbf{6 0}$ from the result.


His answer equals the number he started with
What was the number Liam started with?

## Find all the numbers that $\boldsymbol{k}$ could be.

## You <br> Tube

What was the number Liam started with?

1

Show your working. $\square$ You may get $\square$
a mark.
You
Tube

## 2000A KS2 Q12

Leon and Sara each started with different numbers.


Leon and Sara both get the same answer.

What numbers could they have started with?
Leon $\square$ Sara $\square$

Two matchsticks have the same length as three bottle tops.


How many bottle tops will have the same length as 50 matchsticks?


## 2000A KS2 Q15

Peanuts cost 60p for $\mathbf{1 0 0}$ grams.

What is the cost of $\mathbf{3 5 0}$ grams of peanuts?


Raisins cost $\mathbf{8 0}$ p for $\mathbf{1 0 0}$ grams.
Jack pays $£ 2$ for a bag of raisins.

How many grams of raisins does he get?


2004A KS2 Q18


She always plays five new songs for every two old songs.

Last week she played 15 new songs.
How many songs did she play altogether?


## 2001A KS2 Q21

Triangle ABC is isosceles and has a perimeter of 20 centimetres.

Sides $\mathbf{A B}$ and $\mathbf{A C}$ are each twice as long as $\mathbf{B C}$.


Calculate the length of the side $\mathbf{B C}$. Do not use a ruler.



Problem


2000A KS2 Q12

Leon and Sara each started with different numbers.


Leon and Sara both get the same answer.

What numbers could they have started with?

Sara $\square$

Explain by Counterexample

2004A KS2 Q19

Julie says,
'I added three odd numbers and my answer was 50'

Explain why Julie cannot be correct.


2009A KS2 Q12

Amir says,

'All numbers that end in a 4 are multiples of 4'.

Yes / No
Is he correct?
Circle Yes or No.

Explain how you know.


[^0]:    How much more money was spent in the shop in December than in November?

