## St Mary's Church of England Primary School

## Home Learning

Hello Year Six! I hope you are all okay and staying safe. Try your best at the home learning this week. You are all doing so well - you are home learning heroes! Please continue sending your work to me. I love seeing your brilliant learning!

| Class 6 | Monday 1.3.2021 | Tuesday <br> 2.3.2021 | Wednesday 3.3.2021 | $\begin{aligned} & \text { Thursday } \\ & \text { 4.3.2021 } \end{aligned}$ | $\begin{gathered} \text { Friday } \\ 5.3 .2021 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Maths | Activity 1: <br> Number of the day! <br> - Write it in words. <br> - Round to the nearest 10, 100 and 1000. <br> - Multiply by 10 , 100 and 1000. <br> - Divide by 10, 100 and 1000. <br> - Add 6,078. <br> - Subtract 6,191. <br> - Double it (x2). <br> - Half it $(\div 2)$. <br> Use a calculator, a phone or google to check your answers. | Activity 1: <br> Number of the day! <br> - Write it in words. <br> - Round to the nearest 10, 100 and 1000. <br> - Multiply by 10 , 100 and 1000. <br> - Divide by 10,100 and 1000. <br> - Add 78,982. <br> - Subtract 12,852. <br> - Double it (x2). <br> - Half it $(\div 2)$. <br> Use a calculator, a phone or google to check your answers. | Wonderful Wednesday! <br> Today is a day where there is no online learning. Instead, you can try out some different activities! The Wonderful Wednesday activities can be found on the school website. <br> Please send me photographs of the activities you choose to complete. I would love to see what you get up to! | Activity 1: <br> Number of the day! <br> - Write it in words. <br> - Round to the nearest 10, 100 and 1000. <br> - Multiply by 10 , 100 and 1000. <br> - Divide by 10 , 100 and 1000. <br> - Add 17,912. <br> - Subtract 20,010. <br> - Double it (x2). <br> - Half it $(\div 2)$. <br> Use a calculator, a phone or google to check your answers. | Activity 1: <br> Number of the day! <br> - Write it in words. <br> - Round to the nearest 10, 100 and 1000. <br> - Multiply by 10, 100 and 1000. <br> - Divide by 10 , 100 and 1000. <br> - Add 13,124. <br> - Subtract 100,000. <br> - Double it (x2). <br> - Half it $(\div 2)$. <br> Use a calculator, a phone or google to check your answers. |




|  | sentences to describe what is happening. | the setting using the 5 senses. <br> Activity 4: <br> Write a short paragraph using your word banks to describe the key event. Can you include a simple, compound and complex sentence? |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Other <br> Activities | History <br> Who is Archduke Franz Ferdinand? | Art \& DT <br> Draw, design or build a WW1 plane. <br> You can be as creative as you like! <br> Some of the planes in the picture below are made out of food! |  | RE | Science |
|  |  |  |  | Activity 1: | Activity 1: |
|  | Ferdinand? <br> Activity 1: |  |  | What did Jesus do to save human beings? | Watch the learning videos about classifying animals and plants. |
|  | Watch the learning video: |  |  | Write a few words or | Science KS1 / KS2: Grouping |
|  | The Assassination of Archduke Franz Ferdinand |  |  | phrases that come to mind when you read this | living things - BBC Teach |
|  | Cartoon - YouTube |  |  | question. | Science KS1 / KS2: <br> Classifying and and grouping |
|  | Read the information |  |  | Why do you think | plants - BBC Teach |
|  | this website: <br> Assassination of Archduke |  |  | Christians believe human beings need saving? | Activity 2: <br> Go on a scavenger hunt in |
|  | Franz Ferdinand Cool Kid <br> Facts |  |  | What questions do you have about the question? | your garden or whilst on a walk to find a range of living things. Can you find |



| Thinking Time | Take some time out to relax and follow one of these drawing tutorials. Art for Kids Hub - YouTube <br> Send me a picture of what you have drawn. I love seeing all your artwork! | Five finger gratitude. List 5 things you are grateful for - one for each finger! |  | It is world book day today! Try out some of these activities: <br> - Read a book. <br> - Redesign your favourite book cover. <br> - Write your own novel. <br> - Make a bookmark. <br> - Listen to an audio book. <br> - Dress up as your favourite book character. | Watch Newsround today to see what is happening around the world. <br> Watch Newsround - CBBC Newsround |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exercise and break times |  | many different types of exer you go for a scoot, bike ride, you complete an exercise vid you play a ball game? <br> you make up your own exercis | ise can you complete this w walk or run? <br> eo or recreate a dance rout <br> ise routine or obstacle cour | eek? Can you do more than ine? <br> se? | u did last week? |

## Maths Starter - 1.3.21

| Mild |  |
| :--- | :--- |
| 1. $150+?=500$ |  |
| 2. $172-?=60$ |  |
| 3. 8 年 $+=100$ |  |
| 4. $10 \%$ of $240=$ |  |
| 5. $42 \div ?=7$ |  |
| 6. $2,890-346=$ |  |
|  |  |

## Mild Answers

1. $150+350=500$
2. $172-112=60$
3. $8^{2}+36=100$
4. $10 \%$ of $240=24$

## Medium Answers

1. $2,876+2,124=5,000$
2. $4,543-4,043=500$
3. $12^{2}+106=250$
4. $20 \%$ of $2,340=468$
5. $640 \div 8=80$
6. $98,424-6,675=91,749$

## Medium

1. $2,876+$ ? $=5,000$
2. $4,543-?=500$
3. $12^{2}+?=250$
4. $20 \%$ of $2,340=$
5. $640 \div ?=80$
6. $98,424-6,675=$

## Hot

1. $32,879+?=55,000$
2. $32,765-?=5,000$
3. $14^{2}+?=400$
4. $30 \% \times 3,450=$
5. $216 \div ?=36$
6. $657,989-435,657=$

## Hot Answers

1. $32,879+22,121=55,000$
2. $32,765-27,765=5,000$
3. $14^{2}+204=400$
4. $30 \% \times 3,450=1,035$
5. $216 \div 6=36$
6. $657,989-435,657=222,332$

## Maths Worksheet - 1.3.21

1) Scott builds a pattern using triangles and circles.



a) Draw the next diagram in the pattern.
b) Scott records the number of triangles and circles in a table.

Complete the table.

| Number of triangles | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Number of circles | 3 |  |  |  |  |

c) $c=$ number of circles and $t=$ number of triangles

Which formula describes the pattern?

$$
c=t+3
$$

$$
c=3 t
$$

$$
t=3 c
$$

d) How many circles will there be with 10 triangles?

Show your working.
a) Complete the table.

| Number of weeks | 1 | 2 | 3 | 5 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Number of days | 7 |  |  |  |  |

b) Complete the formula to show the relationship between days ( $d$ ) and weeks ( $w$ ).


3
a) Write a formula for the area and perimeter of the rectangle.

area $=$ $\qquad$
perimeter $=$ $\qquad$
b) Work out the area and perimeter of the rectangle if $a=17 \mathrm{~cm}$ and $b=8 \mathrm{~cm}$.
Show your workings.
a) Write a formula for the area and perimeter of the square.

area $=$ $\qquad$
perimeter $=$ $\qquad$
b) Work out the area and perimeter of the square if $d=8.5 \mathrm{~cm}$. Show your workings.
(5) Dora makes a square pattern using lolly sticks.


She records the number of squares and sticks in a table.
a) Continue the pattern and complete the table.

| Number of squares, $s$ | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Number of lolly sticks, $l$ | 4 | 7 |  |  |  |

## Mild <br> 1. $5 \times 8 \times 4=$ <br> 2. $5^{2}+16=$ <br> 3. $38 \times 7=$ <br> 4. $4,254+3,521=$ <br> 5. $8,654-2,421=$ <br> 6. $3 / 8+1 / 8=$

## Medium

1. $3.7+4.008=$
2. $12-7.06=$
3. $540 \div 2=$
4. $81 \times 1,000=$
5. $6^{2}+7^{2}=$
6. $3 / 7-4 / 14=$

## Mild Answers

1. $5 \times 8 \times 4=160$
2. $5^{2}+16=41$
3. $38 \times 7=266$
4. $4,254+3,521=7,775$
5. $8,654-2,421=6,233$
6. $3 / 8+1 / 8=4 / 8$ or $1 / 2$

## Medium Answers

1. $3.7+4.008=7.708$
2. $12-7.06=4.94$
3. $540 \div 2=270$
4. $81 \times 1,000=81,000$
5. $6^{2}+7^{2}=85$
6. $3 / 7-4 / 14=10 / 14$ or $5 / 7$

## Hot

1. $7.809-2.73=$
2. $3^{2}+4^{3}-6^{2}=$
3. $6 \times 7 \times 0 \times 6=$
4. $4,015 \div 11=$
5. $258,987-53,654=$
6. $1 / 5 \times 1 / 6=$

## Hot Answers

1. $7.809-2.73=5.079$
2. $3^{2}+4^{3}-6^{2}=37$
3. $6 \times 7 \times 0 \times 6=0$
4. $4,015 \div 11=365$
5. $258,987-53,654=205,333$
6. $1 / 5 \times 1 / 6=1 / 30$

## Maths Worksheet - 2.3.21

(1) Match each equation to the part-whole model it represents.


2
A shop sells these items.

a) The total cost of a scarf and a book is $£ 17$

Form an equation to represent this information.
b) The total cost of 2 packets of balloons and a hat is $£ 11$

Form an equation to represent this information.
c) The total cost of a pair of headphones, a scarf and 2 boxes of marbles is $£ 39$

Form an equation to represent this information.
Create your own problem like this for a partner.

3 Write equations to represent the bar models.
a)


c) | 16 |  |  |  |
| :--- | :--- | :--- | :---: |
| $c$ | $c$ |  |  |

b)

d)


Is there more than one possible equation for each?

## Maths Starter-4.3.21

## Mild

1. $(3 \times 4)+$ ? $=19$
2. $(5 \times 5)-?=23$
3. $69 \times 2=$
4. $1 / 3$ of $24=$
5. How much greater is $2 \times 10$ than $3 \times 4$ ?
6. $2,657+465=$

## Medium

1. $(14 \times 4)+?=77$
2. $(12 \times 3)-$ ? $=13$
3. $234 \times 13=$
4. $2 / 3 \times 66=$
5. What is the remainder when 33 is divided by 8 ?
6. $23,765+8,563=$

## Hot

1. $(222 \times 3)-?=300$
2. $(144 \div 12)-?=4$
3. $12,321 \times 25=$
4. $5 / 7 \times 490=$
5. 3 consecutive numbers when multiplied together give 210. What are the numbers?
6. $1,456,980+356,987=$

## Hot Answers

1. $(222 \times 3)-366=300$
2. $(144 \div 12)-8=4$
3. $12,321 \times 25=308,025$
4. $5 / 7 \times 490=350$
5. 3 consecutive numbers when multiplied together give 210. What are the numbers? $5 \times 6 \times 7$
6. $1,456,980+356,987=1,813,967$

## Maths Worksheet - 4.3.21

(1) Write an equation for each part-whole model.

Work out the value of the multilink cube in each equation.
a)

2 There are some counters under the cup. There are 10 counters in total.
a) If $c$ is the number of counters under
b)

the cup, explain why
$c+6=10$
b) Work out the value of $c$.
c) How many counters are under the cup?

3 Write algebraic equations to represent the bar models.
Find the value of $a$ in each one.
a)

c)

b)

d)

(4) Nijah is solving the equation $x-8=20$

What mistake has Nijah made?

$$
\begin{aligned}
& x-8=20 \\
& x=20-8 \\
& x=12
\end{aligned}
$$

(5) Solve the equations.
a) $x+7=20$
b) $10 y=80$
c) $4 m=22$
d) $g-3=15$
e) $32=t-5$
f) $\frac{u}{6}=3$
6) Filip thinks of a number.

He subtracts 5 from his number.
He ends up with 10
Write an algebraic equation to represent Filip's problem.
Solve the equation to work out his number.

Dexter builds a tower.
Each block is $2 a$ high.
He uses 7 blocks.
The total height of his tower is 42 cm .


Write an equation to represent the height of Dexter's tower and find the value of $a$.

8 Work out the value of each shape.
Write the equations that you solved to find the value of each shape.

Work out the missing total of each row and column.

Compare answers with a partner.


## Maths Worksheet - 5.3.21

(1) Here is a part-whole model.

a) Write an equation for the part-whole model.
b) Solve the equation to work out the value of 00
(2)

If each multilink cube represents $x$, form and solve an equation to find the value $x$.


There is the same number of counters under each cup. There are 16 counters in total.

a) Use $y$ to represent the number of counters under each cup.

Write an equation in terms of $y$.
b) Solve the equation to find the value of $y$.
c) How many counters are under each cup?

4 Write an algebraic equation to represent each bar model. Find the values of $a$ and $b$.
a)

| 21 |  |  |
| :---: | :---: | :---: |
| $a$ | $a$ | 9 |

b)

| 46 |  |
| :---: | :---: |
| $3 b$ | 10 |

5 Solve the equations.
a) $5 x+1=31$
b) $3 x-3=9$
c) $4 p-11=3$
d) $9=2 y+8$
e) $10 g-2=46$
f) $4+3 y=28$

6 Dani thinks of a number.
She doubles it and adds 3
She gets the answer 15
a) Write an equation to represent Dani's problem.
b) Solve the equation to find her number.

7 Alex is $y$ years old.
Her friend Brett is 3 years older.
The total of their ages is 25
How old are Alex and Brett?
a) Work out the cost of one banana and one orange.

b) Compare methods with a partner.
(1) Scott builds a pattern using triangles and circles.
,
a) Draw the next diagram in the pattern.

b) Scott records the number of triangles and circles in a table.

Complete the table.

| Number of triangles | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of circles | 3 | 6 | 9 | 12 | 15 |

c) $c=$ number of circles and $t=$ number of triangles Circle the formula that describes the pattern.

```
c=t+3\quadc=3t\quadt=3c\quadt=3+c
```

d) How many circles will there be with 10 triangles? Show your working.
$3 \times 10=30$
(2) a) Complete the table.

| Number of weeks | 1 | 2 | 3 | 5 | 10 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of days | 7 | 14 | 21 | 35 | 70 |

b) Complete the formula to show the relationship between days ( $d$ ) and weeks ( $w$ ).
c) How many days are there in 32 weeks?

$$
d=7 w
$$

(3)
a) Write a formula for the area and perimeter of the rectangle.


$$
\text { area }=a b
$$

Work out the area and perimeter of the rectangle if
$a=17 \mathrm{~cm}$ and $b=8 \mathrm{~cm}$
Show your workings.

$$
\text { area }=136 \mathrm{~cm}^{2} \quad \text { perimeter }=50 \mathrm{~cm}
$$

4) a) Write a formula for the area and perimeter of the square.

area $=d$
$d^{2}$ -

$$
\text { perimeter }=4 d
$$

b) Work out the area and perimeter of the square if $d=8.5 \mathrm{~cm}$ Show your workings.

$$
\text { area }=72.25 \mathrm{~cm}^{2}
$$

perimeter $=$

(5) Dora makes a square pattern using lolly sticks.


She records the number of squares and sticks in a table.
a) Continue the pattern and complete the table.

| Number of squares, $s$ | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of lolly sticks, $l$ | 4 | 7 | 10 | 13 | 16 |

Maths Worksheet Answers - 2.3.21

1) Match each equation to the part-whole model it represents.


2 A shop sells these items.

a) The total cost of a scarf and a book is $£ 17$

Form an equation to represent this information.
$\qquad$
b) The total cost of 2 packets of balloons and a hat is $£ 11$

Form an equation to represent this information.

$$
2+h=11
$$

c) The total cost of a pair of headphones, a scarf and 2 boxes of marbles is $£ 39$
Form an equation to represent this information.
$\qquad$
Create your own problem like this for a partner.

3 Write equations to represent the bar models.

a) | 14 |  |
| :--- | :--- |
| $a$ | $a$ |

b) | $b$ |  |  |  |
| :--- | :--- | :--- | :--- |
| 3 | 3 | 3 | 3 |

$2 a=16$

$2 c+10=16$ $\qquad$
$\qquad$

## Maths Worksheet Answers - 4.3.21

(1) Write an equation for each part-whole model.

Work out the value of the multilink cube in each equation.

b)

2) There are some counters under the cup.


There are 10 counters in total.
a) If $c$ is the number of counters under the cup, explain why $c+6=10$
b) Work out the value of $c$.

c) How many counters are under the cup?
(3) Write algebraic equations to represent the bar models.

Find the value of $a$ in each one.
a)

c)



b)



$$
a=5
$$



Nijah is solving the equation $x-8=20$

$$
\begin{aligned}
& x-8=20 \\
& x=20-8 \\
& x=12
\end{aligned}
$$

What mistake has Nijah made?
She should have added \& to 20
$\qquad$Solve the equations.
a) $x+7=20$
d) $g-3=15$


b) $10 y=80$
e) $32=t-5$
c) $4 m=22$

f) $\frac{u}{6}=3$

$$
m=5 \cdot 5
$$

$\square$

6
Filip thinks of a number
He subtracts 5 from his number
He ends up with 10
Write an algebraic equation to represent Filip's problem

$$
x-5=10
$$

Solve the equation to work out his number

7
Dexter builds a tower
Each block is $2 a$ high. He uses 7 blocks.


The total height of his tower is 42 cm .
Write an equation to represent the height of Dexter's tower and find the value of $a$

$$
14 a=42
$$



8 Work out the value of each shape.
Write the equations that you solved to find the value of each shape.
10 $\square$

$$
S=2
$$

Work out the missing total of each row and column.

## Maths Worksheet Answers - 5.3.21

Here is a part-whole model.
a) Write an equation for the part-whole model.
$\qquad$
b) Solve the equation to work out the value o


2 If each multilink cube represents $x$, form and solve an equation to find the value $x$.

(3)

There is the same number of counters under each cup.
There are 16 counters in total.

a) Use $y$ to represent the number of counters under each cup. Write an equation in terms of $y$.
$\qquad$
b) Solve the equation to find the value of $y$.
c) How many counters are under each cup?

$$
\begin{aligned}
y & =6 \\
& 6
\end{aligned}
$$

4 Write an algebraic equation to represent each bar model.
Find the values of $a$ and $b$.

b)


$b=12$

5
Solve the equations.
a) $5 x+1=31$
d) $9=2 y+8$

$$
x=6
$$

b) $3 x-3=9$
e) $10 g-2=46$

f) $4+3 y=28$
c) $4 p-11=3$

$$
p=3.5
$$

6) Dani thinks of a number. She doubles it and adds 3
She gets the answer 15
a) Write an equation to represent Dani's problem
$\qquad$
b) Solve the equation to find her number.

7 Alex is $y$ years old.
Her friend Brett is 3 years older.
The total of their ages is 25
How old are Alex and Brett?
Alex is

Brett is 14

8

a) Work out the cost of one banana and one orange.


