Halesowen C of E Primary School
Home Learning

DATE: 18.5.20-22.5.20
Maths Problem Solving Focus Week

YEAR GROUPS: 5 and 6
THEME/FOCUS: A week as a Halesowen CE student

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
The alarm clock has just gone off and you roll over to think about the day ahead. So many options for a fun day at home, what to do? What to do..... 1) You decide you want to watch a film in the morning that starts at 10.25am. The film lasts for 103 minutes. What time does the film finish? You wake up at 8am and have a choice of things to do before the film starts. What do you choose to do and how long will these choices last? Breakfast 15mins Brush your teeth and have a wash 20mins Take a shower and get dressed 25mins	You are hosting a party and you need to make cupcakes, set up a party game and hang decorations. Complete the following problems to help you prepare for the party. 1) You must bake cupcakes for your party. The ingredients you need to make 6 cups cakes is; 4oz S.R flour 4oz sugar 4oz butter 2 eggs You have 32 guests coming to your party, what is the amount of each ingredient you will need to make everyone a cup cake? You can only bake 12 cakes at a time and they take 20 minutes to bake. You put the first ones in at 13.10pm	The weather is glorious, the sun is shining, and the birds are singing. You meet up at Huntingtree park with your friends. It's bound to be a busy day! 1) You arrive at the park on time. You look around for your friends. If you make a quarter turn and then a three-quarter turn, you end up where you started. Always, sometimes, never 2) You buy yourself a packet of crisps and your friend an ice cream. The cost of both of them together is in one of the boxes below.	Time for school! You are back in school for the day. Miss Gordon, Mrs Tomlinson, Mrs Wenlock and Mrs Allard are all super excited to see you and are ready to get your brilliant minds active. 1) In the classroom the desks have been organised in equal rows. You decide to sit at the desk that is fourth from the front and third from the back. There are four desks on the right but only one to the left of your desk. How many desks are in the classroom? 2) Mrs Wenlock gave an answer of 84 children.	The fun fair has arrived in town. Your parents are letting you and your closest friend spend the day there. When you arrive, you discover it's not an ordinary fun fair, but a Maths fun fair! Woo hoo!! You and your friend set out to investigate the first problem. 1) You come upon a magician at the fun fair and he has six coins in his pocket. There are three different kinds (each with a different value), and there are two of each kind. Using the clues below, figure out the value of each coin.

Go for a walk 1hour 10mins
Ride your bike 30 mins
Go to the park 45mins

Could you do all of the choices? Yes or No
Explain your answer.

2) Board Game
You are going to play snakes and ladders, there are 29 squares on the board. You have 1 dice, what numbers can you roll whilst adding them together to get to 29 to get to the finish first?

What is the least amount of numbers you could roll?
What is the most amount of numbers you can roll?

You can only roll a 6, a 5 and

At what time will all of your cupcakes be finished?

2) Pin The Tail On The Donkey
There are 33 tails to pin on the donkey but only 9 children want to have a go. How many goes could each child have?
How could you show this as a fraction?
Circle the fractions that are the equivalent.
81/297   6/18   3/11
63/264   27/99

£1.85	75p	£1.74	£2.25	£1	£1.56
£2.10	80p	£1.80	£3.06	£1.44	£1.50
£1.60	£1.25	£1.20	90p	£1.45	£1.27

Use these clues to find out how much you paid:

1. You need more than three coins to make this amount.
2. There would be change when using the most valuable coin to buy them.
3. The crisps cost more than 50p.
4. You could pay without using any copper coins.
5. The ice cream costs exactly twice as much as the crisps.

3) You and your mates play a game of football, the final score was 4–2.

4-2

What could the half time score have been?
Can you find all the possible

How many mathematical questions can you think of that will have this answer?

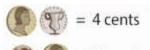Can you give a strange, obvious, general question?

3) In the playground Year 5 measured the perimeter of the sports pitch as being 60m.

Can you have a rectangle that is numerically equal in area? Is there more than one possibility?

4) Miss Gordon gave a challenge to her class.

She asked, "Can you make square numbers by adding two prime numbers together? "

= 4 cents

= 10 cents

= 12 cents

How many different values can the magician make with the six coins from his pocket?

2) Next up...bumper cars!! But wait, in order to be able to ride them you must figure out this problem first.

The track for the bumper cars has a length of 38 metres and a width of 9 metres. What is the area and perimeter of the track?

a 4, two times each and a 3, a 2 and a 1, once. Convince me that you can get to 29 using these numbers?

3) You are bored at home and decide to do some online shopping. You look in your money bank to see how much money you have saved to spend online.

Price List

Small Lego kit	4.79
Football	5.27
Roller skates	7.31
Stuffed animal	6.83
Bag of sweets	2.39
Hula hoop	3.87

3) Helium Balloons
Sally bought 2 packs of 18 red balloons in each.
Joe bought 3 packs of 9 blue balloons in each.
Freddy bought 2 packs of 12 green balloons in each.

If a helium tank could only blow up 15 balloons how many helium tanks would you need?

What percentage of balloons are green?
What else do you know?

half time scores?
How will you make sure you don't miss any out?

You play one final game of football, the final score was a draw; 3–3 and which ended up as penalties.

3-3
Can you find all the possible half time scores for this match?

4) It's time to go home after a fun-filled day. You need to get the bus back home from Huntingtree park at 16:30 but there is currently no time displaying for when you will arrive at Halesowen Bus Station.

Have a go. Try with the squares of the numbers 4-20.

5) During reading in English, the books pages are numbered from 1. The page numbers have a total of 164 digits. How many pages has the book? How many of the digits are a 5?

6) During topic you are researching world flags. Choose one. What shapes can you see? Can you describe them and their angles? Can you find any pairs of parallel lines? Are there any lines perpendicular to one another?

What is the same and what is different?

One bumper car has a length of 3 metres and a perimeter of 10 metres. what is the width and area of one bumper car?

If there needs to be a space of 2 metres between each track, how many cars can safely go round the edge at once? How do you know this?

How many cars could fit in the whole area? How do you know this?

3) It's almost closing time at the fun fair but you have decided to squeeze one more activity in before leaving for home. You approach a booth and the worker tells you that you could win any prize you like, If you can solve this puzzle.

Bundle of 3 books	12.10
Box of chocolates	4.56

If you buy a football for your friend, what could you buy with the leftover coins?

How much money would you need to buy everything? Are you able to buy everything? Why or why not?

How many different combinations of items could you buy?

4) How many days does Ramadan last? How many hours is this? If daylight hours are from 04:45 to 21:15 then how many hours are spent fasting each day? Each week?

Underneath the home learning grid, is an incomplete timetable. Can you complete it using the information and clues below to help you?

• It takes 10 minutes to get to Huntingtree Road from Huntingtree Park usually.
• Halesowen Town Centre is only 5 minutes before Halesowen Bus Station.
• The **2pm bus*** from Huntingtree Park takes 5 minutes longer at each stop!
• The **8pm bus**** from Huntingtree Park takes 10 minutes longer at each stop.
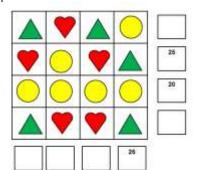

Each shape stands for a number. The numbers shown are the totals for each row and column.

Find the remaining totals.

Can you explain how you did it?

Once you think you have solved it, ask an adult or sibling to check the solution below.

BUS TIMETABLE FOR WEDNESDAY'S ACTIVITY (4)

DEPART Huntingtree Park	09:00		**14:00***	16:30		**20:00****
Huntingtree Road		11:15				
Alexandra Rd (Tesco Express)	09:25		14:35	16:55	18:25	20:45
Earls Roundabout	09:40					
Halesowen Town Centre		11:55	15:10	17:20	18:50	
Halesowen Bus Station	09:55					21:45

Solution

4 [yellow circle] = 20

So each circle has a value of 20 ÷ 4 = 5

2 [yellow circle] + 2 [green triangle] = 26

2 x 5 + 2 [green triangle] = 26. So 2 [green triangle] = 26 – 10 = 16

So [green triangle] = 16 ÷ 2 = 8

2 [red heart] + [yellow circle] + [green triangle] = 25

2 [red heart] + 5 + 8 = 25

2 [red heart] = 25 – 5 – 8 so 2 [red heart] = 12, [red heart] = 6

[green triangle] 8	[red heart] 6	[green triangle] 8	[yellow circle] 5	27
[red heart] 6	[yellow circle] 5	[red heart] 6	[green triangle] 8	25
[yellow circle] 5	[yellow circle] 5	[yellow circle] 5	[yellow circle] 5	20
[green triangle] 8	[red heart] 6	[red heart] 6	[green triangle] 8	28
27	22	25	26	