Canonbury Home Learning

Year 4/5 Maths

Summer Week 11 Lesson 1 – 09.07.20

For the final two weeks of the summer term we will be setting you problem solving activities that require you to use a range of your maths skills.

Because the activities may be quite varied, there will be no models on these sheets. However, there will be further explanations on the daily videos. As in previous weeks, the activities will get progressively more challenging.

At the end of each of these activities is a link to where you can read example answers submitted by other children.

Today the focus is DIVISION

STARTER

Lola bought 8 toys. She paid **£2.65**. How many **coin combinations** could she use to make this amount?

 Now choose 3 activities to try!

ACTIVITY 1 <mark>STEPPINGSTONE ACTIVITY</mark>
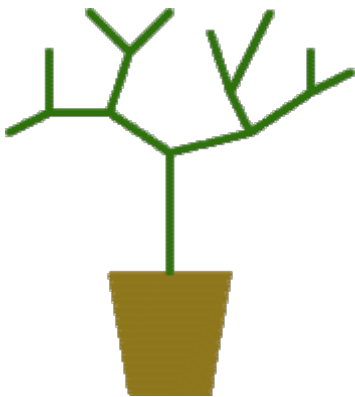
The Amazing Splitting Plant

The splitting plant grows in a special way.

In the first week, the stem splits into two branches.
In the second week, each of these two branches split into another two branches - making four branches altogether.

This keeps happening every week, until at the end of the sixth week each branch grows a flower.

How many flowers will the plant have?

ACTIVITY 2 <mark>STEPPINSTONE ACTIVITY</mark>

Share Bears

Yasmin and Zach have some bears to share. Which numbers of bears can they share equally so that there are none left over?

Can they share one bear equally? Can they share two bears equally? Three bears? Four bears...?

What do you notice about the numbers they can share fairly? It might help to look at a number line and mark the numbers that do share fairly onto it. Do you notice a pattern?

ACTIVITY 3 <mark>MILD/SPICY</mark>

Growing Garlic

Ben is on the allotment with his Mum. They would like to grow some garlic and are deciding how to plant the garlic cloves.

Ben arranges the cloves into three rows and finds that he has one spare clove. How many cloves might he have had to start with?

Ben plants cloves of garlic in two rows and has one clove left over. So he tries again.
He plants cloves in three rows and has one left over. So he tries again.
He plants cloves in four rows and has one left over. So he tries again.
He plants cloves in five rows and has one left over. So he tries again.
He plants cloves in six rows and has one left over.
We know that he has fewer than 100 garlic cloves. How many did he have?

You could think about how many cloves he might have had if there were more than 100.

ACTIVITY 4 <mark>MILD/SPICY</mark>

Lots of Lollies

Frances and Rishi were given a bag of lollies.

They shared them out evenly and had one left over.

Just as they had finished sharing them their friends Kishan, Hayley and Paul came along. They wanted some lollies too so the children shared them out again between all of them. This time they had two lollies left over.

How many lollies could there have been in the bag?

EXTENSION <mark>SPICY</mark>

Once you've had a chance to think about it, click below to see how three different groups of pupils began working on the task.

Sarah, Danielle and Sally said:

"We noticed that 17 works as when there are only two of them they get 8 each, with one left over. But when their friends come along they get three each with 2 left over.

We also notice that 7 works and 27 works, as well as 107."

Poppy began like this:

If the two children end up with one lolly it must be an odd number of lollies. Then three more children come making the total number of children 5. Say they had 1 lolly each when they shared them, the number of lollies would be 7 because 1 times 5 is 5 add on 2 for the left over ones and it makes seven. If we carry this on to 10 lollies each it shows:

1 lolly each - 7 lollies
2 lollies each - 12 lollies
3 lollies each - 17 lollies
4 lollies each - 22 lollies
5 lollies each - 27 lollies
6 lollies each - 32 lollies
7 lollies each - 37 lollies
8 lollies each - 42 lollies
9 lollies each - 47 lollies
10 lollies each - 52 lollies

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Here is the start of Phoebe and Alice's work:

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

Brown = Odd numbers.

Green = 2 left over when shared with 5 people.

PTO →

Can you take each of these starting ideas and develop it into a solution?

ACTIVITY 5 <mark>HOT</mark>

The Deca Tree

In the forest there is a Deca Tree.
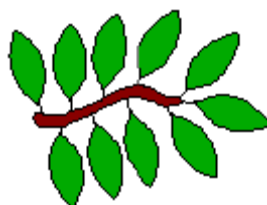A Deca Tree has 10 trunks,

and on each trunk there are 10 branches,

and on each branch there are 10 twigs,

and on each twig there are 10 leaves:

One day a woodcutter came along and cut down one trunk from the tree.
Then he cut off one branch from another trunk of the tree.
Then he cut off one twig from another branch.
Finally he pulled one leaf from another twig.

How many leaves were left on the tree then?