# Slade Maths Newsletter December 2024

## News

This term, we had a different TTRS competition to normal as all the children from Year 2 to Year 6 were in competition with each other! A big well done to the top 25% of children who earned a special film afternoon on Tuesday this week. Well done, we hope you enjoyed the film! Look out for January's newsletter, where we will announce the next competition! Well done to our weekly individual winners this month: Bobby, George, Aleksander, Sophia, David, Daniel, David, Flynn, Teddy, Heidi, Arabella, Kemal, Liam, Lucas and Owen.

In other times tables news, Mrs Buckland has an announcement about a Year 6 mathematician. Congratulations to Milo, who is the first child this academic year to complete all 21 levels of the times tables challenge that all Year 5 and 6 children undertake . Milo is the first boy to achieve this, with only 3 girls in the past accomplishing it. We have some very talented mathematicians here at Slade, so we're expecting more children to join Ajita and Milo on the roll of honour.

Finally, four Year 6 children took part in a maths competition at Invicta Grammar School in Maidstone. Harry, Veeraj, Milo and Swati all did fantastically well at representing Slade. They worked brilliantly as a team to solve some extremely difficult maths problems and logic puzzles. The maths teacher from Invicta was particularly impressed at how methodical the team worked. The team did brilliantly, finishing in second place out of 11 schools. Well done!

## Reflecting back

In January we set you some different challenges. I wonder which ones you were able to complete?

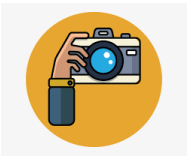
⇒ How much taller are you than in January? How much more do you weigh? How did you choose to measure these?

⇒ Did you manage to learn the months of the year and how many days each month has? Do you know how many weeks and days there are in a year?

⇒ Have you learnt a new times table by heart?

⇒ Did you set yourselves a mathematical New Year's resolution? How did you get on with it?

We want to see what maths you get up to at home! Send in pictures of yourself doing maths at home. It could be that you want to do some maths based on the monthly topic (see below), or you might want to come up with your own ideas. Some suggestions might include: making patterns, drawing pictures, using money, cooking and so on. The world is your oyster! Send your photos into maths@slade.kent.sch.uk by Friday 17th January.



**This month's topic is...Christmas!**

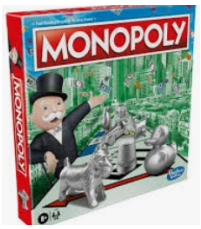
**Christmas**

⇒ Can you count how many days it is until Christmas Day? What about how many hours until it will be until 6am on Christmas morning?

⇒ Can you help an adult with some Christmas baking? Make sure you are accurate with the weighing and measuring!

⇒ Can you buy a present for someone using money? Double check that you get the correct change!

⇒ Look at the presents under the tree. Can you count how many there are? Can you organise them into groups for who they are for? Can you write a number sentence showing how many presents there are in total? Can you organise them from smallest to biggest? Think carefully about the different ways there might be to do this!



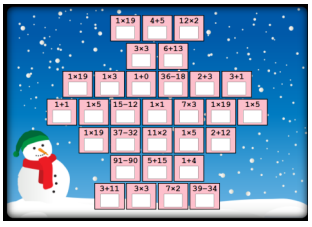

⇒ Can you play a game that involves counting how many spaces you move on a grid? Can you play Monopoly where you are the banker? Make sure everyone gets the correct money each time.

⇒ If it snows, can you compare the size of your footprint to other people in your family? How many heel-to-toe footsteps does it take you to get from one place to another? How does the size of your feet impact this?

⇒ Each year, the GCHQ Christmas Challenge is released. Can you work with some adults at home to try and solve the problem? The problem is on the next two pages of the newsletter. More information can be found here: https://www.gchq.gov.uk/news/gchq-christmas-challenge-2024

**Maths website of the month**

Sticking with out Christmas theme, there's lots of exciting games that you can play on this website: https://www.transum.org/Christmaths/ Which games will you get stuck into this Christmas?



# The GCHQ Christmas Challenge

Each of the seven puzzles below will lead you to the name of a UK landmark.

Use the names of these landmarks, and the front cover of the card, to discover what people across all of our GCHQ locations will be this Christmas.

## 1

What does this say?

## 2

What are you left with once you've removed the award, carrier, character, programme, route, and safety guide?

| | | |
|---|---|---|
| Black | Brick | Badge |
| Pink | Cross | Bag |
| Blue | Panther | Code |
| Brown | Paper | Hood |
| Green | Peter | Road |
| Yellow | Pool | Show |
| Red | Riding | Tower |

## 3

Complete the sequences:

TROIS, DEUX, __
II, III, __, V
OD, __, IM
QG, RH, __
QW, ER, __
JOAN, __, ARC
DLA, NOD, ___, DLO
GRE, AT, ___, TA, IN
KNO, WLE, ___

## 4

Solve the clues. Only write in each square the single letter, if any, which appears in both the across answer and the down answer.

| | Indian butter (4) | ___ Voldemort, or ___ Asriel (4) | Football anti-racism campaign (4, 2, 3) | Woodwind reed instrument (7) |
|---|---|---|---|---|
| Material that jeans are made from (5) | | | | |
| Slang word for food (from a pub?) (4) | | | | |
| Latin dance (3-3-3) | | | | |
| Life ___, free ___, or hair ___ (5) | | | | |

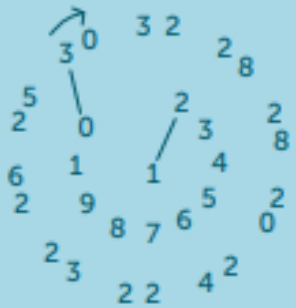
## 5

Replace the words in brackets:

An American (soldier) named Joe said that avoiding a huge colony of (insects) was the (basis) of him losing his (path).

## 6

We wrote the numbers 1-20 in order below, but made some mistakes. Calculate how far off we were.



## 7

PERHAPS READING the start of this substitution cipher will help you solve it.

ISKGWIM KSWEBDU BN DFN LBIGSKSE BM IKBCWKBQX W QSWEBDU BDEBLWNBFD NF XFO

MFQPBDU NGBM WECBNNSEQX ESPBFOM BDBNBWQQX ODKSWEWAQS CSMMWUS.

Follow us or scan the QR code to find the answers soon.

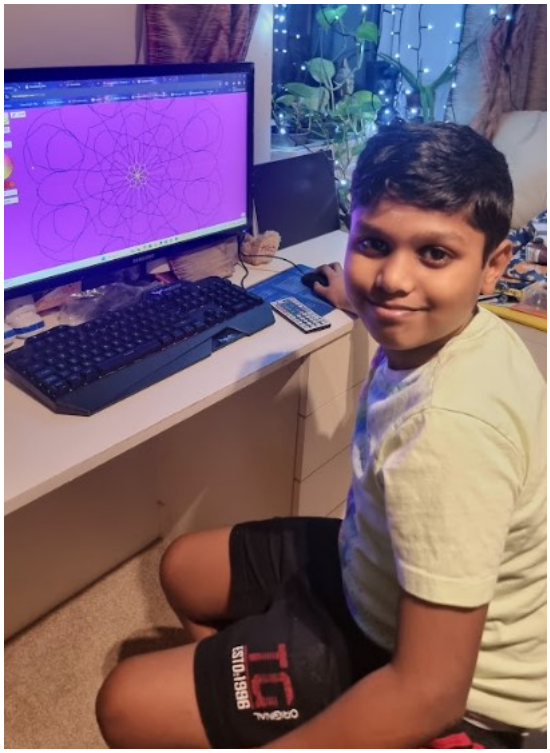
www.gchq.gov.uk/xmas2024

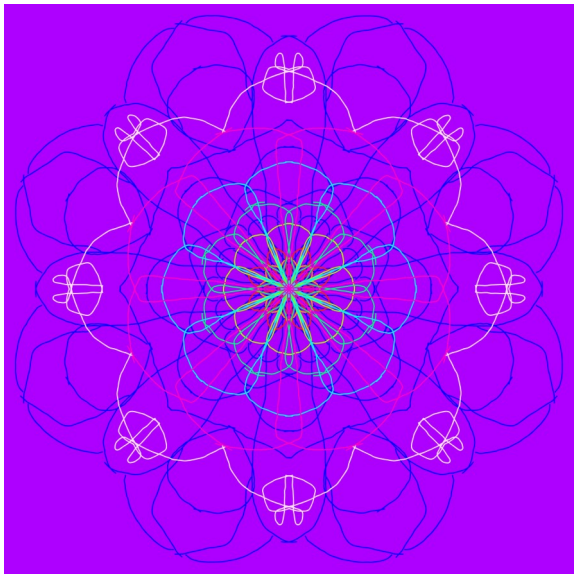
@GCHQ

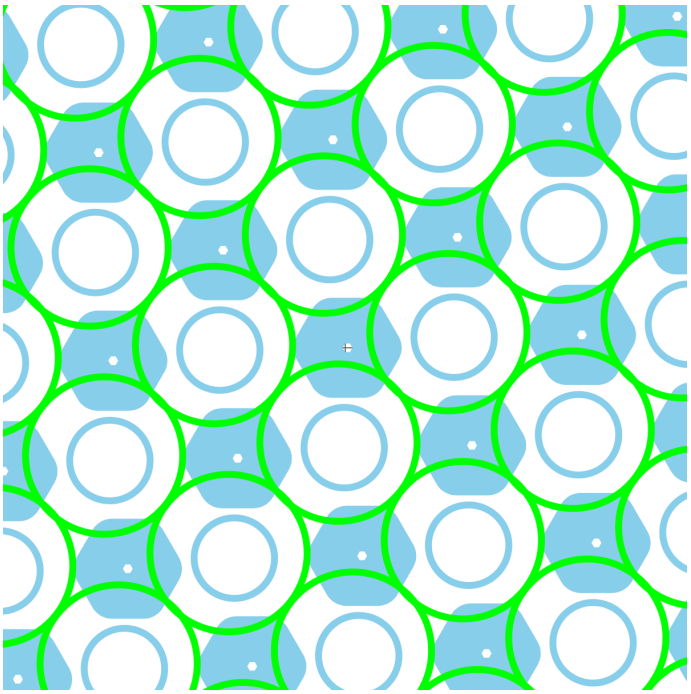

The GCHQ Christmas Challenge
1, 2, 3, 4
11, 7, 5, 2
6, 14, 8, 10
20, 19, 11, 15
18, 4, 6, 11
16, 4, 5, 6
4, 9, 2, 6

**Maths at Home**

There were lots of children who were busy working on their maths skills. Well done to everyone who sent in their photos. We hope you enjoy looking at the fantastic maths they got up to!

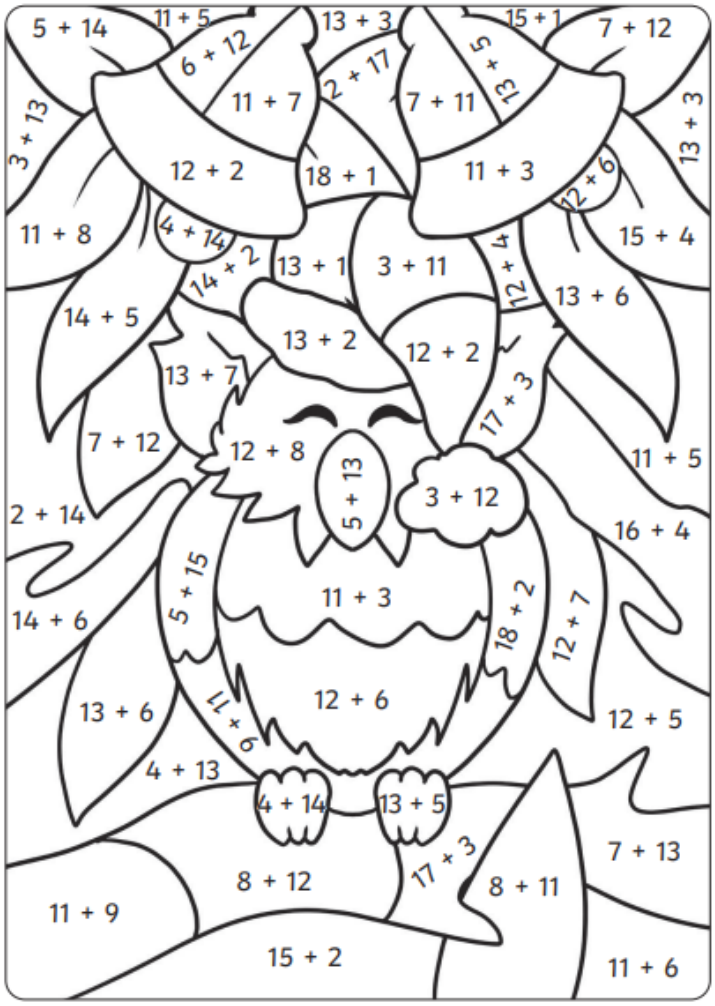






A huge well done to Arjun this month. He combined his mathematical, technological and artistic skills to make some great tessellating and symmetrical pieces of art work.

Well done, Arjun!




| | |
|---|---|
| 14 | red |
| 15 | white |
| 16 | light blue |
| 17 | dark blue |
| 18 | yellow |
| 19 | green |
| 20 | brown |

Challenge:

True or false? Explain your reasons.

12 + 4 = 11 + 5

**Puzzle Time!**

Can you use your maths skills to reveal this different pictures?

10 or 20 = red  15 or 25 = skin tone  30 or 40 = blue  45 or 55 = black

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6 x 5 | 3 x 10 | 5 x 6 | 5 x 4 | 10 x 1 | 4 x 5 | 10 x 3 | 5 x 6 | 10 x 4 |
| 5 x 6 | 10 x 3 | 10 x 2 | 2 x 5 | 4 x 5 | 2 x 10 | 10 x 2 | 3 x 10 | 6 x 5 |
| 10 x 3 | 6 x 5 | 1 x 2 | 7 x 5 | 10 x 8 | 8 x 2 | 10 x 10 | 6 x 5 | 10 x 4 |
| 6 x 5 | 12 x 10 | 5 x 10 | 3 x 5 | 5 x 5 | 3 x 5 | 2 x 8 | 2 x 9 | 3 x 10 |
| 10 x 4 | 2 x 12 | 3 x 5 | 9 x 5 | 5 x 3 | 5 x 11 | 5 x 3 | 2 x 7 | 5 x 6 |
| 6 x 5 | 2 x 1 | 5 x 5 | 3 x 5 | 2 x 10 | 5 x 5 | 3 x 5 | 2 x 4 | 10 x 3 |
| 3 x 10 | 1 x 5 | 2 x 2 | 2 x 7 | 8 x 2 | 10 x 6 | 6 x 2 | 2 x 2 | 6 x 5 |
| 10 x 4 | 5 x 6 | 7 x 10 | 5 x 1 | 5 x 9 | 10 x 11 | 5 x 7 | 3 x 10 | 10 x 3 |
| 10 x 3 | 1 x 10 | 2 x 3 | 11 x 2 | 2 x 12 | 2 x 11 | 9 x 10 | 5 x 4 | 10 x 4 |
| 4 x 5 | 5 x 4 | 10 x 2 | 10 x 10 | 3 x 2 | 2 x 4 | 5 x 2 | 2 x 10 | 4 x 5 |

| Red | Yellow | Brown | Green | Blue |
|---|---|---|---|---|
| 1 – 5 | 6 – 10 | 11 – 20 | 21 - 40 | 41 - 144 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 × 7 | 8 × 8 | 6 × 7 | 8 × 11 | 36 ÷ 6 | 7 × 6 | 8 × 7 | 12 × 5 | 7 × 10 |
| 9 × 7 | 9 × 11 | 9 × 12 | 9 × 12 | 2 × 12 | 9 × 5 | 10 × 7 | 11 × 4 | 9 × 6 |
| 12 × 7 | 10 × 9 | 11 × 10 | 36 ÷ 9 | 7 × 5 | 36 ÷ 12 | 8 × 11 | 12 × 7 | 10 × 10 |
| 9 × 10 | 11 × 4 | 3 × 3 | 11 × 3 | 48 ÷ 8 | 9 × 4 | 81 ÷ 9 | 7 × 8 | 10 × 7 |
| 12 × 7 | 12 × 11 | 4 × 7 | 6 × 6 | 9 × 3 | 4 × 8 | 12 × 2 | 11 × 6 | 9 × 9 |
| 9 × 10 | 6 ÷ 2 | 5 × 7 | 2 × 2 | 12 × 3 | 16 ÷ 4 | 6 × 5 | 24 ÷ 8 | 10 × 10 |
| 11 × 5 | 8 × 5 | 35 ÷ 5 | 5 × 5 | 8 × 1 | 11 × 3 | 70 ÷ 10 | 4 × 7 | 9 × 9 |
| 2 × 11 | 5 × 6 | 10 × 4 | 7 × 4 | 3 × 8 | 6 × 6 | 9 × 3 | 3 × 11 | 4 × 8 |
| 3 × 2 | 12 × 3 | 30 ÷ 6 | 6 × 6 | 99 ÷ 11 | 8 × 5 | 5 × 1 | 5 × 7 | 2 × 4 |
| 7 × 6 | 8 × 12 | 11 × 10 | 88 ÷ 8 | 4 × 3 | 72 ÷ 6 | 5 × 12 | 11 × 8 | 6 × 12 |

| Brown | Blue | Red | Black | White | Green |
|---|---|---|---|---|---|
| 0.12 | 0.24 | 0.36 | 1.2 | 2.4 | 3.6 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0.2 × 1.2 | 0.12 × 1 | 3 × 0.08 | 2 × 0.06 | 6 × 0.04 | 4 × 0.03 | 12 × 0.02 | 0.2 × 0.6 | 2.4 × 0.1 |
| 0.3 × 0.8 | 4 × 0.06 | 3 × 0.04 | 2 × 0.12 | 2.4 × 0.1 | 0.12 × 2 | 0.3 × 0.4 | 0.03 × 8 | 0.04 × 6 |
| 0.1 × 2.4 | 0.6 × 0.4 | 0.2 × 1.2 | 0.3 × 0.4 | 0.6 × 0.2 | 0.1 × 1.2 | 0.3 × 0.8 | 4 × 0.06 | 0.02 × 12 |
| 0.04 × 6 | 0.03 × 8 | 3 × 0.04 | 0.06 × 2 | 0.01 × 12 | 30 × 0.004 | 0.2 × 0.6 | 2.4 × 0.1 | 0.3 × 0.8 |
| 0.02 × 12 | 4 × 0.06 | 0.4 × 0.3 | 0.4 × 6 | 0.6 × 0.2 | 0.1 × 24 | 0.3 × 0.4 | 0.12 × 2 | 6 × 0.04 |
| 2 × 1.2 | 4 × 0.03 | 0.2 × 0.6 | 4 × 0.3 | 3 × 0.04 | 0.06 × 20 | 0.06 × 2 | 0.1 × 1.2 | 2.4 × 0.1 |
| 1.2 × 3 | 0.2 × 0.6 | 4 × 0.03 | 0.6 × 0.2 | 2 × 0.06 | 0.01 × 12 | 0.4 × 0.3 | 0.01 × 12 | 2 × 1.8 |
| 30 × 0.12 | 1.8 × 2 | 0.01 × 12 | 0.01 × 12 | 0.4 × 0.3 | 0.6 × 0.2 | 0.2 × 0.6 | 40 × 0.09 | 60 × 0.06 |
| 6 × 0.6 | 400 × 0.009 | 0.6 × 0.2 | 3 × 0.04 | 0.06 × 2 | 0.01 × 12 | 4 × 0.03 | 30 × 0.12 | 18 × 0.2 |
| 9 × 0.4 | 0.2 × 18 | 6 × 0.6 | 4 × 0.9 | 1.2 × 0.3 | 6 × 0.06 | 1.8 × 2 | 0.4 × 9 | 1.2 × 3 |