How many little squares make
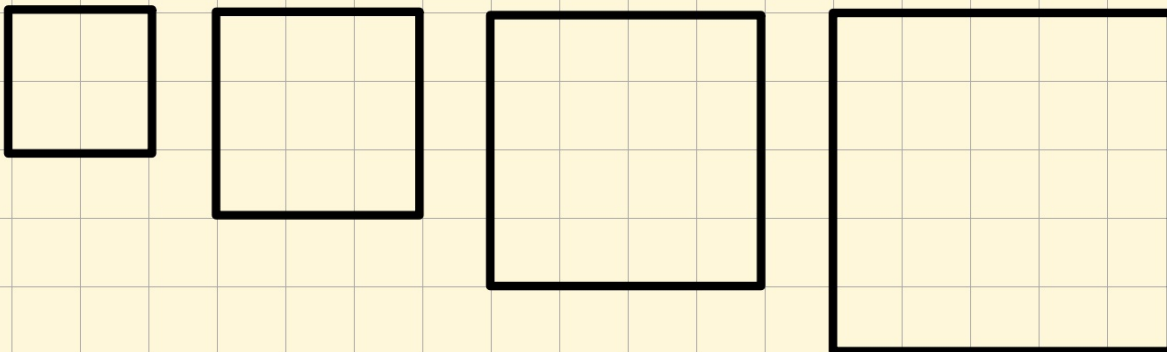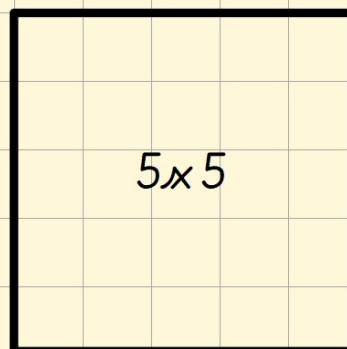up the big squares?

Is there a quick way of finding out?

Monday 19th October 2020
TBAT recognise and use square numbers

How many little squares make
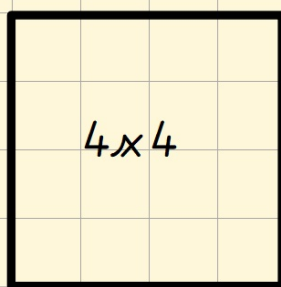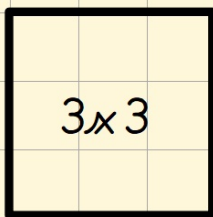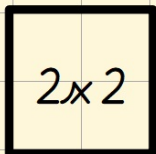up the big squares?

Is there a quick way of finding out?

2 x 2

3 x 3

4 x 4

5 x 5

Monday 19th October 2020
TBAT recognise and use square numbers

Square numbers calculations can be shown
using the mathematical symbol ^{2}

squared

$2^2 = 2 \times 2 = 4$

Record all of the square numbers in your
book up to 12^2

Challenge: How many square numbers can you
make by adding prime numbers
together?

Here's one to get you started:

$2 + 2 = 4$

<u>Tuesday 20th October 2020</u>
<u>TBAT solve problems involving square</u>
<u>numbers</u>

Can you calculate 19^2 without using written multiplication?

By the end of this lesson you should be able to!

Tuesday 20th October 2020
TBAT solve problems involving square numbers

e first square number, 1². ☐

e second square number, 2².

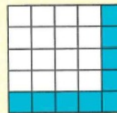hat was added to 1² to make 2². 3

e third square number, 3².

hat was added to 2² to make 3².

e fourth square number, 4².

hat was added to 3² to make 4².

e fifth square number, 5².

hat was added to 4² to make 5².

10 Keep going like this up to the 13th square number.

11 Now write the 14th square number without drawing anything.

12 Write 15^2 and 16^2.

13 If 20^2 is 400, work out what 21^2 is.

14 If 25^2 is 625, work out what 26^2 is.

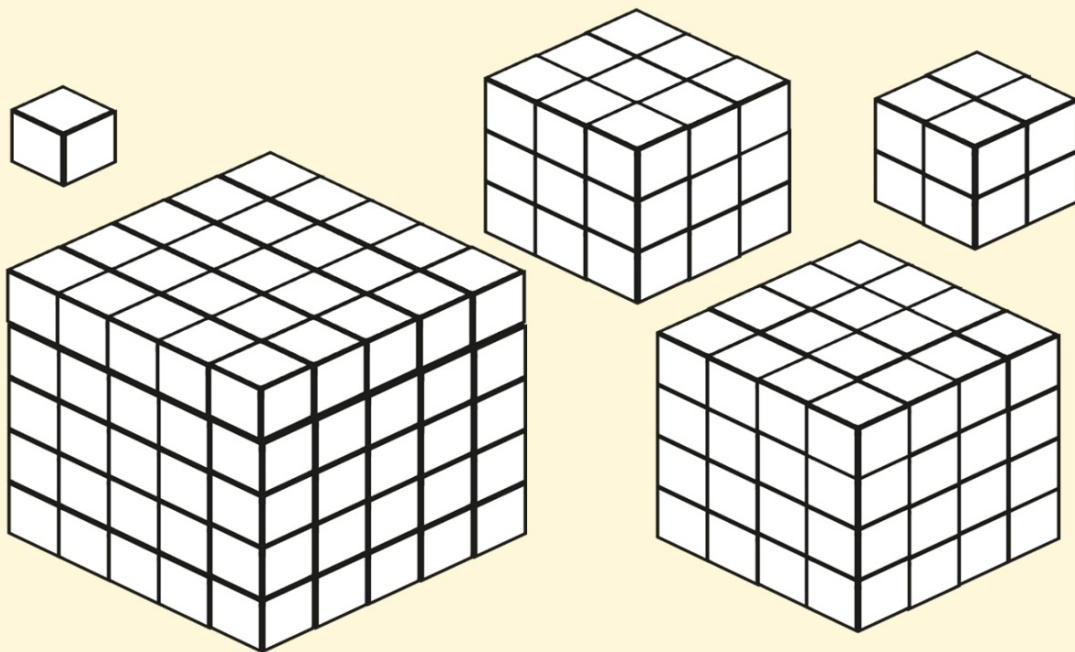You don't need to multiply!

THINK Write a rule explaining how you find the next square number.

<u>Wednesday 21st October 2020</u>
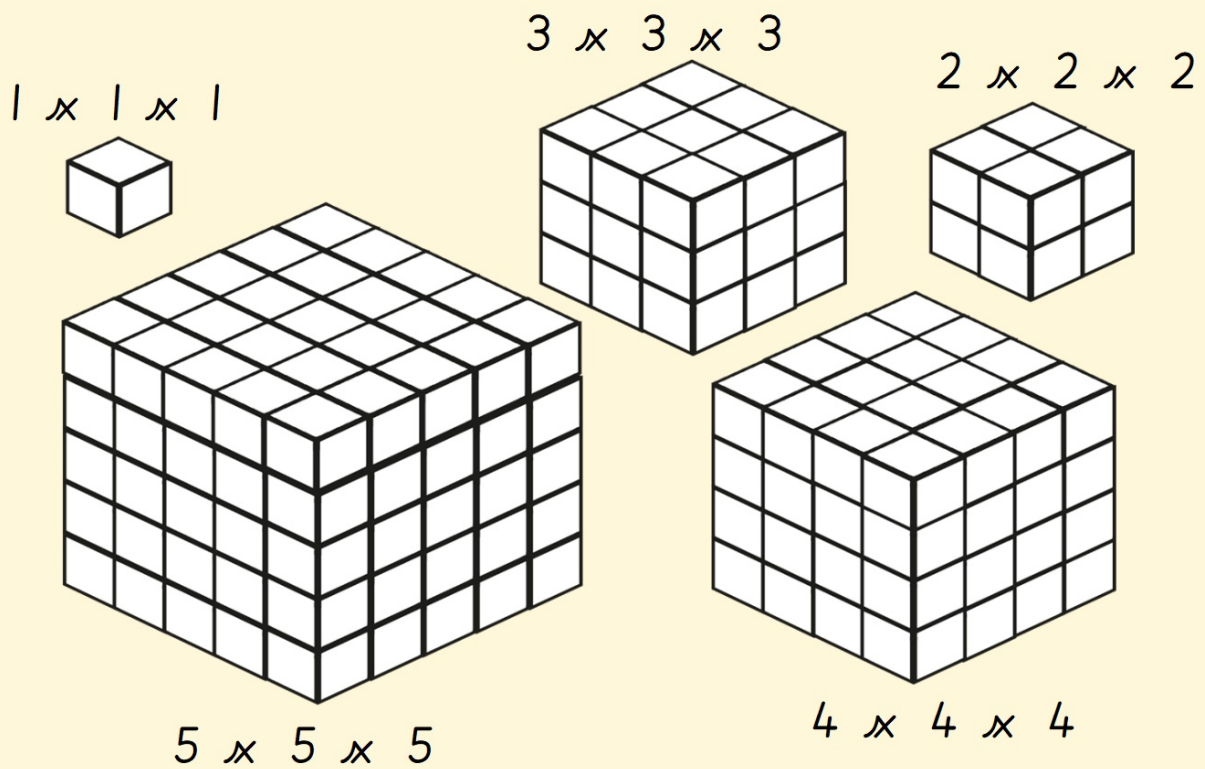<u>TBAT recognise and use cube numbers</u>

What do you notice about these 3D shapes?

1 x 1 x 1

3 x 3 x 3

2 x 2 x 2

5 x 5 x 5

4 x 4 x 4

TBAT recognise and use cube numbers

Cube number calculations can be shown using the mathematical symbol ^{3}

cubed

$2^3 = 2 \times 2 \times 2 = 8$

Calculate like this: $2 \times 2 = 4$

$4 \times 2 = 8$

Record all of the cube numbers in your book up to 12^3

Thursday 22nd October 2020
TBAT solve problems involving square and cube numbers

Silver:

a) $7^2 + 4^3 =$	b) $8^2 + 10^2 =$	c) $5^3 - 5^2 =$
d) $5^2 +$ _____ $= 89$	e) _____ $- 8^2 = 17$	f) $3^2 \times 2^3 =$
g) $3^2 +$ _____ $= 5^2$	h) $6^3 \div 2^2 =$	i) $13^2 =$
j) $10^3 - 2^2 =$	k) $100^2 =$	l) _____ $^2 = 144$

Gold:

Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers

Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29.		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^3 and 6^3.		

Friday 23rd October 2020

Fluency Friday

11 times table

1 x 11 =	11
2 x 11 =	22
3 x 11 =	33
4 x 11 =	44
5 x 11 =	55
6 x 11 =	66
7 x 11 =	77
8 x 11 =	88
9 x 11 =	99
10 x 11 =	110
11 x 11 =	121
12 x 11 =	132

Timestables.co.uk

Speed table practice!