Year 5
Autumn 1 Newsletter

English
This half term, our focus books are 'Boy at the Back of the Class' by Onjali Q.Rauf and 'Hidden Figures' by Margot Lee Shetterly.

We will be writing setting descriptions, narratives, letters and speeches.

RE

We will be exploring the following questions:
- What helps Muslims through the journey of life?
- What are the 5 pillars of Islam?
- How and why do Muslims pray?

Maths

This half term, our maths topics are:
- Place value
- Addition and subtraction

Geography

The children will learn about what life is like in the Alps. We are learning about where the Alps are located, its human and physical features and mountain formations.

PSHE

In PSHE this term, we will be learning about British values, rules and laws, diversity and equality.

Diary Dates

PE days: Monday and Friday
Meet the teacher meeting: Monday 18th September 3:15PM

Art

We are focusing on Pablo Picasso and cubism this half term. The children will study and recreate artwork in the style of Picasso then create their own piece of artwork inspired by cubism.

PE

Our focus sports this term are tag rugby and swimming. Mr Leeming will be in touch soon with more information regarding swimming.

Music

This half term, the children will be taught to find and keep a steady beat, listen and copy rhythmic patterns by ear or from notation and copy back various melodic patterns.

Science

Our focus this half term is the Earth and space. We will be learning about how the Earth moves, the phases of the moon, the solar system and Katherine Johnson.

Autumn 1 Homework Mat

Please complete one task per week and upload a photo or video to Class Dojo.

English Task

Write a creative story about a school with no teachers and no rules. Imagine a new student arrives for their first day, what happens to them? How do they feel? Be imaginative- anything can happen in your story!

Maths Task

Invent a game that would help someone learn how to add together large, 4-digit numbers. Write the rules/instructions on a piece of A4 paper and take a picture for ClassDojo!

Science Task

Make a model that represents the planets in our solar system. You can present this model however you like, using play doh, paint or even food! Upload a picture to ClassDojo.

Geography Task

Research a mountain range (not the Alps!) and make an informative poster to teach the rest of the class about it. Upload a video to ClassDojo of you explaining your poster so we can learn about it as a class!

Art Task

Create a large piece of 3D artwork inspired by the cubism style by finding objects around the house that are various 3D shapes and arranging them to resemble a picture. Upload a picture to ClassDojo!

Number and Place Value

Knowledge Organiser

Key Vocabulary

millions
thousands
hundreds
tens
ones
zero
place value
greater than
less than
order
round
rounded
negative number
partition
digit
interval
sequence
linear sequence

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Compare and Order

equals

$26 + 38 = 8 \times 8$

Both calculations have the value 64.

greater than

$23\ 873 > 8256$

The number on the left has 2 ten thousands and the number on the right has 0 ten thousands.

less than

$901\ 198 < 1\ 091\ 098$

The number on the right has 1 million and the number on the left has 0 millions.

smallest | 898 | 6735 | 6835 | 7019 | 9002 | 11 235 | greatest

Negative Numbers

-25 -24 -23 -22 -21 -20 -19 -18 -17 -16 -15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 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

Counting in Powers of 10

Counting in 10s

365	375	385	395	405	415

The tens increase until 9 tens becomes one more hundred and 0 tens.

Counting in 100s

2841	2941	3041	3141	3241	3341

The hundreds increase until 9 hundreds becomes one more thousand and 0 hundreds.

Counting in 10 000s

276 109	286 109	296 109	306 109

The ten thousands increase until 9 ten thousands become one more hundred thousand and 0 ten thousands.

Counting in 100 000s

2 972 151	3 072 151	3 172 151	3 272 151

The hundred thousands increase until 9 hundred thousands becomes one more million and 0 hundred thousands.
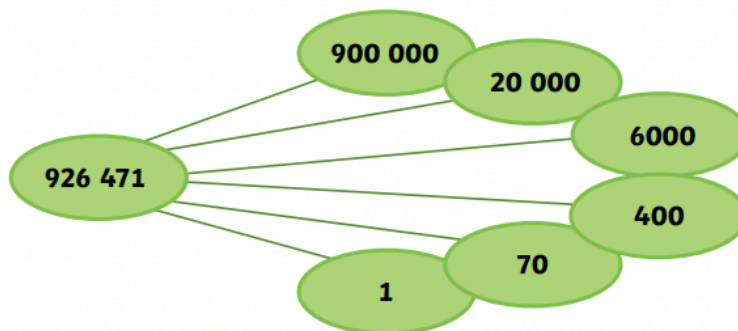
Numbers to One Million

926 471

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
9	2	6	4	7	1

nine hundred and twenty-six thousand, four hundred and seventy-one

926 471 → 900 000, 20 000, 6000, 400, 70, 1

```
0                          500 000                        1 000 000

      100 00  200 000  300 000  400 000      600 000  700 000  800 000  900 000
                                                                           ✕
```

Roman Numerals

	I = 1	II = 2	III = 3	
IV = 4	V = 5	VI = 6	VII = 7	VIII = 8
IX = 9	X = 10	XI = 11	XX = 20	XXX = 30
XL = 40	L = 50	LX = 60	LXX = 70	LXXX = 80
XC = 90	C = 100	CL = 150	CC = 200	CCC = 300
CD = 400	D = 500	DC = 600	DCC = 700	DCCC = 800
CM = 900	M = 1000	MC = 1100	MD = 1500	MM = 2000

CCXLVIII = 248   DCCLXXXIV = 784   MMXIX = 2019

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Rounding

Rounding to the nearest 10
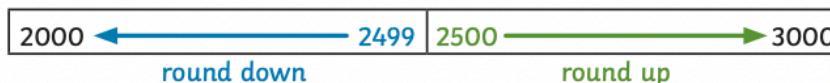
20	21	22	23	24	25	26	27	28	29	30

← round down   round up →

Rounding to the nearest 1000

2000 ← 2499	2500 → 3000

round down   round up

Rounding to the nearest 100 000

200 000 ← 249 999	250 000 → 300 000

round down   round up

Key Vocabulary	Addition	Subtraction

Key Vocabulary

Add
Total
Make
Plus
Sum
More
Altogether
Difference
Subtract
Less
Minus
Take away
Column addition
Column subtraction
Estimate
Inverse operation
Number facts
Place value
Complex

Addition

Place Value Grid: 3274 + 5601 = 8875

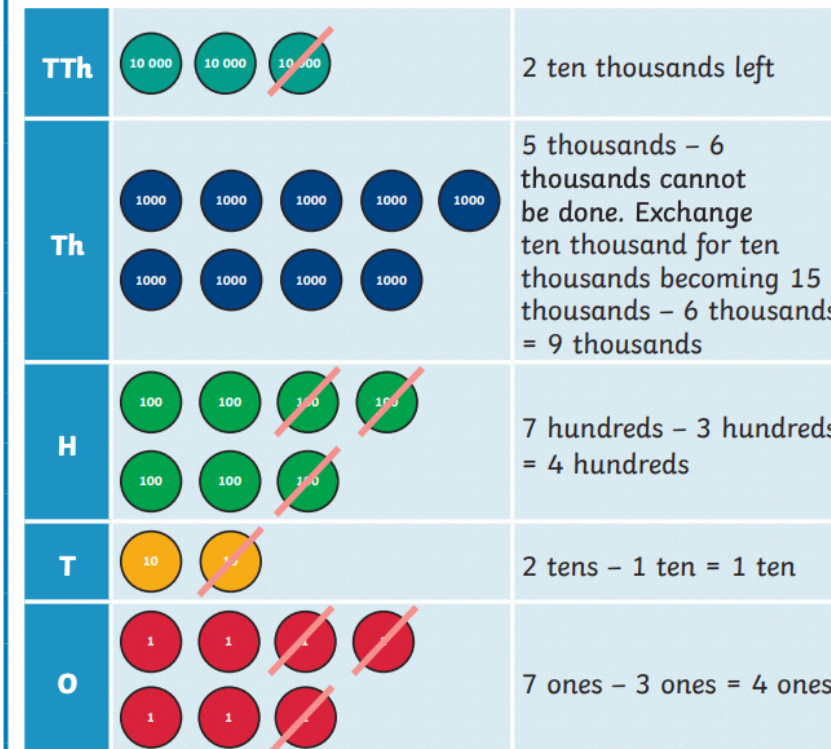|	
Th	1000 1000 1000 1000 / 1000 1000 1000 1000
H	100 100 100 100 / 100 100 100 100
T	10 10 10 10 / 10 10 10
O	1 1 1 1 1
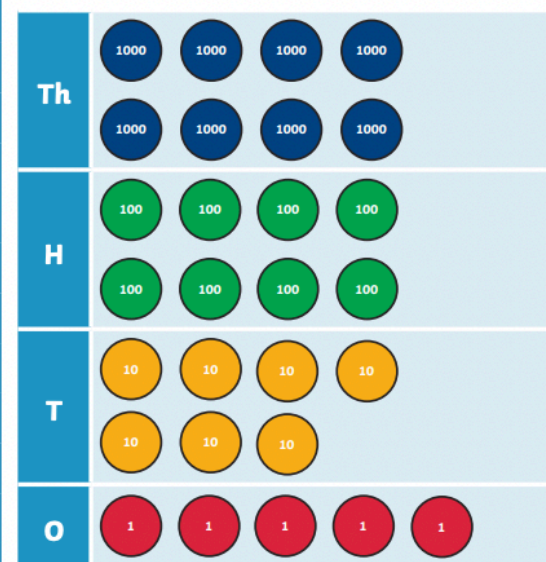
Column Method

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.

```
   45864
 +23497
 ------
   69361
    1 1 1
```

Subtraction

Place Value Grid: 35 727 – 6313 = 29 414

TTh	10 000 10 000 10 000	2 ten thousands left
Th	1000 1000 1000 1000 1000 / 1000 1000 1000 1000	5 thousands – 6 thousands cannot be done. Exchange ten thousand for ten thousands becoming 15 thousands – 6 thousands = 9 thousands
H	100 100 100 100 / 100 100 100	7 hundreds – 3 hundreds = 4 hundreds
T	10 10	2 tens – 1 ten = 1 ten
O	1 1 1 1 / 1 1 1	7 ones – 3 ones = 4 ones

Column Method

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.

```
    6 13 1
   35742
 -  3476
 ------
   32266
```

Addition and Subtraction

Estimate and Approximate

Rounding to Estimate

41 635 + 7386 = 49 021

Round to ten:

41 630 + 7380 = 49 010

41 630 + 7390 = 49 020

41 640 + 7390 = 49 030

Rounding is not as accurate when both numbers are rounded up. A better estimate comes from "rounding" one down and one up.

Estimating on a Number Line

The arrow is about $\frac{3}{4}$ of the way across the line so it is 40 000.

Inverse Operations

Use the inverse to check:

53 476	
32 732	20 744

To check 53 476 − 32 732 = 20 744 use 32 732 + 20 744 = 53 476

Start with a number, subtract 409 and double. I end with 6264.

To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132. 3132 + 409 = 3541. The starting number was 3541.

Multistep Problems

Using a Bar Model

The sum of two numbers is 25 567.
The difference is 1875.

Subtract 1875 from 25 567 = 23 692.
Halve 23 692 to find smaller number = 11 846.
Add 1875 to find larger number = 13 721.

£20		
£3.75	£8.49	?
£12.24		£7.76

£20 is used to buy 2 books costing £3.75 and £8.49.

How much change is given?

£3.75 + £8.49 = £12.24
£20.00 - £12.24 = £7.76

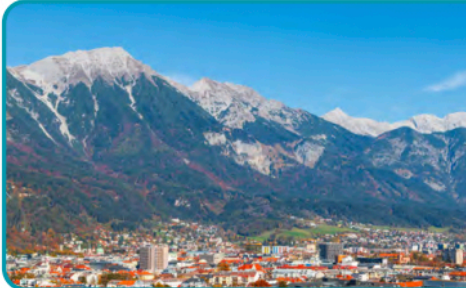# What is life like in the Alps?

World map

North America

UK

The Alps

Europe

Asia

Arctic Ocean

Atlantic Ocean

Pacific Ocean

South America

Africa

Indian Ocean

Oceania

Southern Ocean

N
W E
S
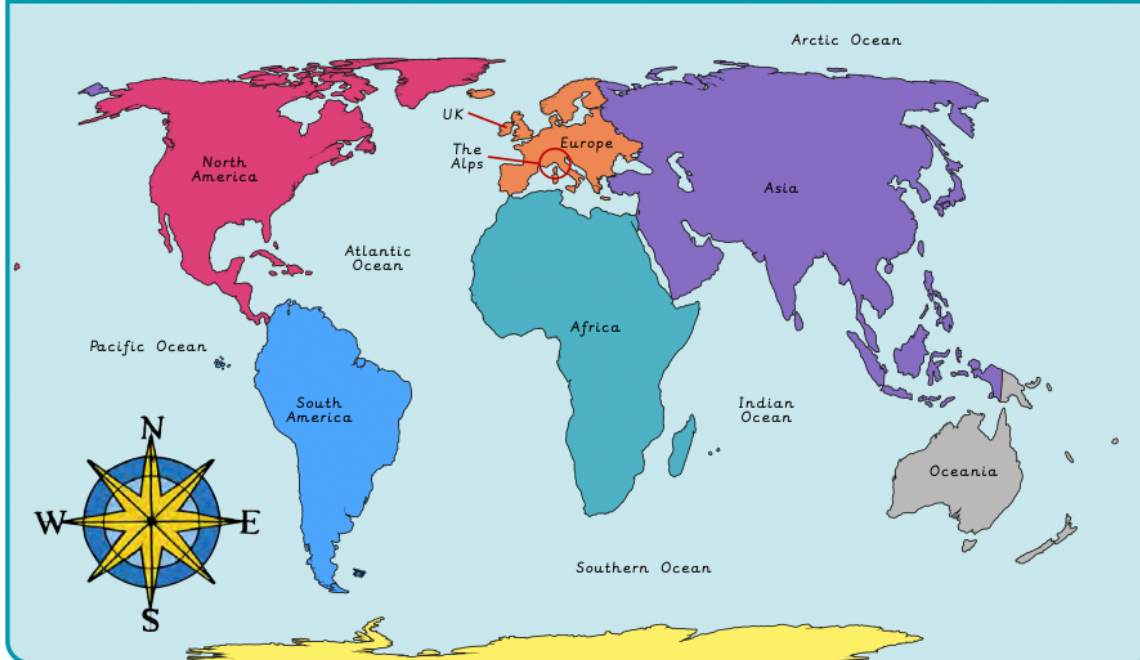
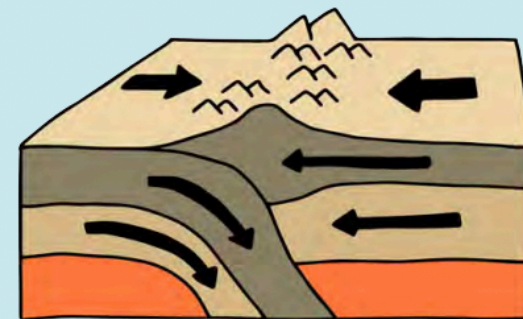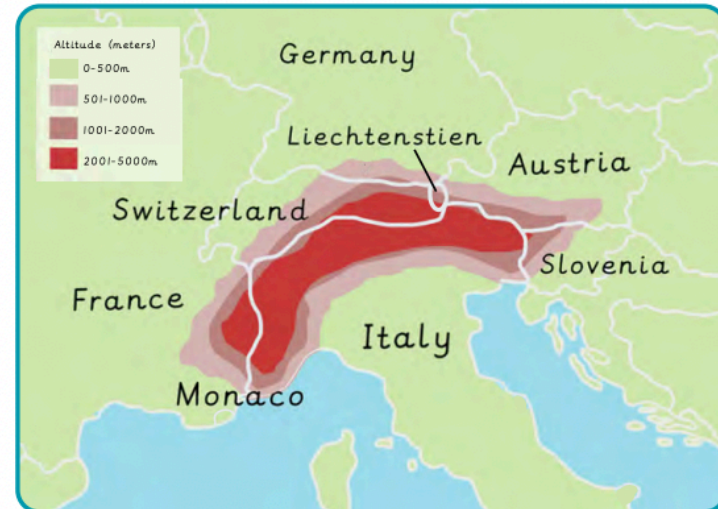Mont Blanc is the highest mountain in the Alps.

Climate

Most of the Alps have a mountain climate. It is much colder than the surrounding climate due to the height of the mountains. Lower regions of the Alps have a temperate climate.

Popular activities in the Alps include skiing, hiking and sightseeing

Map of Europe

leisure	The use of free time for enjoyment.
tourist	A person who travels to a place for pleasure.
tourism	Travel for pleasure in which people visit places of interest.

Altitude (meters)
- 0-500m
- 501-1000m
- 1001-2000m
- 2001-5000m

Germany
Liechtenstien
Austria
Switzerland
Slovenia
France
Italy
Monaco

Alpine mountains are fold mountains. They were formed when two tectonic plates pushed together and the ground was forced upwards.