

IAL: how to group organisms by criteria in a variety of ways

Visit these links about grouping organisms.

BBC Bitesize: <https://www.bbc.co.uk/bitesize/topics/zn22pv4/articles/z3nbcwx>

Scishow Kids: <https://www.youtube.com/watch?v=Gy60BqCnTG4>

Scientists need to classify organisms (living things like plants and animals) to keep them organised as there are millions of species. They do this by looking at the similarities and differences between the organisms.

Sort the animals into these diagrams.

Carroll diagram

	Lays Eggs	Doesn't Lay Eggs
Bird	goose, swan, flamingo, pigeon, toucan, ostrich, hummingbird, chicken, eagle, emu	peacock (male bird, female = peahen)
Not a bird	turtle, praying mantis, shrimp, slug, mosquito, dragonfly, chameleon, frog, beetle, snail, earthworm, snake, tortoise, eel, bee, ladybird, jellyfish, starfish, clownfish, crocodile, stingray, gecko, crab, lobster	lemur, bat, wolf, mouse, gorilla, rabbit, brown bear, gazelle, whale, lion, pangolin, sea lion, koala, elephant, echidna, walrus, rhino, panda bear, squirrel

Venn diagram

Choose a way to sort the animals into groups.

E.g. Has wings

E.g. Has feathers

Various answers possible

goose	turtle	lemur	praying mantis	bat	shrimp
					
wolf	swan	slug	flamingo	mosquito	dragonfly
					
pigeon	mouse	chameleon	toucan	frog	ostrich
					
beetle	hummingbird	gorilla	snail	rabbit	earthworm
					
brown bear	snake	tortoise	chicken	eel	gazelle
					
whale	lion	pangolin	bee	sea lion	eagle
					
koala	elephant	ladybird	jellyfish	starfish	lobster
					
clownfish	crocodile	echidna	walrus	stingray	gecko
					
rhino	panda bear	emu	crab	squirrel	peacock
					

IAL: about Boudica's Rebellion

Read this information about Boudica.

Queen Boudica and her army gave the Romans a major challenge when they arrived in Britain. In AD 60, Boudica led an uprising against the Romans. Boudica was the queen of the Iceni tribe, who lived in what is now East Anglia.

What caused this major rebellion?

When Boudica's husband, Prasutagus, died, he left his territory to the Romans and to his two daughters. By doing this, he had hoped to keep all sides happy as they had been left part of his kingdom. When the Romans moved into the kingdom, they looted buildings and took people away to be slaves. Boudica claimed that the Romans seriously hurt her and her daughters. This is what caused her to lead a rebellion.

Other tribes in East Anglia joined with the Iceni to fight the Romans. An army of about 30,000 men attacked the Romans but though they had numbers on their side, they were a ramshackle force with no organisation. However, they had one very important thing on their side: the Romans were concentrating their efforts on defeating the Druids in Anglesey. There was no sizeable Roman army force in East Anglia. As a result, the Iceni had a clear run to the major Roman city of Colchester (Camulodunum) in Essex. Here, they massacred the population of the city. It is said that everybody was killed - men, women and children. Just outside of Colchester, the Iceni and others killed soldiers from the 9th Legion who had tried to stop the rebels. It is thought that 2000 Roman soldiers were killed.

From Colchester, the rebels moved on to London (Londinium). Here a similar pattern of destruction took place. It is thought that 70,000 died here. Suetonius only had a small garrison defending London at this time. He ordered it to leave for its own safety. To him, trained soldiers were more important than civilians. St. Albans (Verulamium) was also attacked.

Suetonius returned with his force via Chester and Wroxeter. The tribe's people by this time may have been too confident after their victories. Up against a disciplined and well-lead Roman army, they were heavily beaten.

The only written account we have on the rebellion comes from Tacitus, a Roman writer. He claimed that 80,000 Britons were killed in this battle, but this is likely to be an exaggeration. He also wrote that only 400 Roman soldiers were killed, which is also highly unlikely. However, historians do accept that it was a major victory for the Romans that once again asserted their authority over the Britons.

What of Boudica? Tacitus claims that Boudica took poison rather than face capture. .



Answer these questions about Boudica's Rebellion.

- A 1) How did Prasutagus try to keep both sides of the Rebellion happy when he died?  
 He left his kingdom to both sides of the Rebellion, his daughters and the Romans.

- 2) Which of these reasons was the actual reason the Iceni tribe beat the Romans?  
 Circle one.

They had  
30 000 men.

The Romans  
were focused  
on Anglesey.

They had  
good  
organisation.

- 3) Why did Suetonius order the small garrison of soldiers to leave Londinium?

He ordered the garrison to leave for its own safety.

- 4) Tick whether these statements are true or false.

	True	False
The Iceni tribe killed the 9 <sup>th</sup> Legion just outside Colchester.	✓	
Around 30000 men died in Londinium.		✓
The Romans seriously hurt Boudica so she lead the Rebellion.	✓	

- B 5) Read this part of the text again.

*The only written account we have on the rebellion comes from Tacitus, a Roman writer. He claimed that 80,000 Britons were killed in this battle, but this is likely to be an exaggeration. He also wrote that only 400 Roman soldiers were killed, which is also highly unlikely.*

Why does it describe Tacitus' account as **an exaggeration** and **highly unlikely**? Think about and discuss why this historical source might be unreliable and untrustworthy.

This was written by the side of the Rebellion that 'won'. They might have exaggerated how many Britons were killed to make the Roman army seem stronger and their victory even greater. There is no account from the other side to confirm this account so we can't be sure how true it is.

- C 6) How do you think historians can get a more accurate view of historical events?

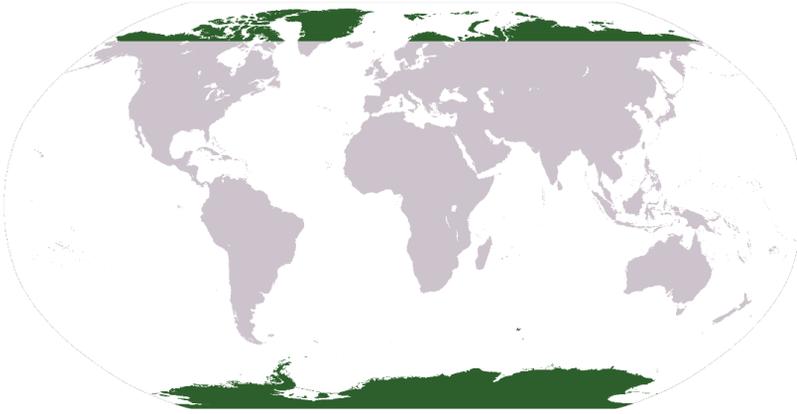
Historians want to try and consider sources from both sides of an event so they get a more accurate view. They will then be able to tell what is true and what was made up.

IAL: about the North and South Poles

Visit these links about longitude and latitude.

<https://www.bbc.co.uk/bitesize/topics/zvsfr82/articles/zd4rmfr>

<https://www.youtube.com/watch?v=cTrsvGytGG0>



The North Pole is located in the Arctic Circle - a circle at latitude 66°N.

The South Pole is located in the Antarctic Circle - a circle at latitude 66°S.

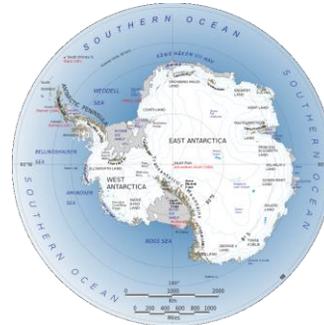


### The Arctic

Contains land from these countries:

- Norway
- Sweden
- Finland
- Russia
- United States of America (Alaska)
- Canada
- Greenland
- Iceland

Temperatures can get as low as -70°C!  
Around 4 million people live inside the Arctic Circle.



### The Antarctic

Antarctica is a continent but it contains no countries.

It is not owned by any one country. The global community have agreed it should be an area of peace and science. The environment is protected, with mining and military activities banned. Around 3500 people stay here every year as part of the scientific and environmental research teams. No-one lives there permanently.

Think about what you think the weather would be like in July and December in these two places. Explain your reasons.

Various predictions possible. Might discuss how the North and South Hemispheres have opposite seasons i.e. when it is summer in the Northern Hemisphere, it is winter in the Southern Hemisphere.

Compare the daylight hours at the North Pole, South Pole and in the UK.

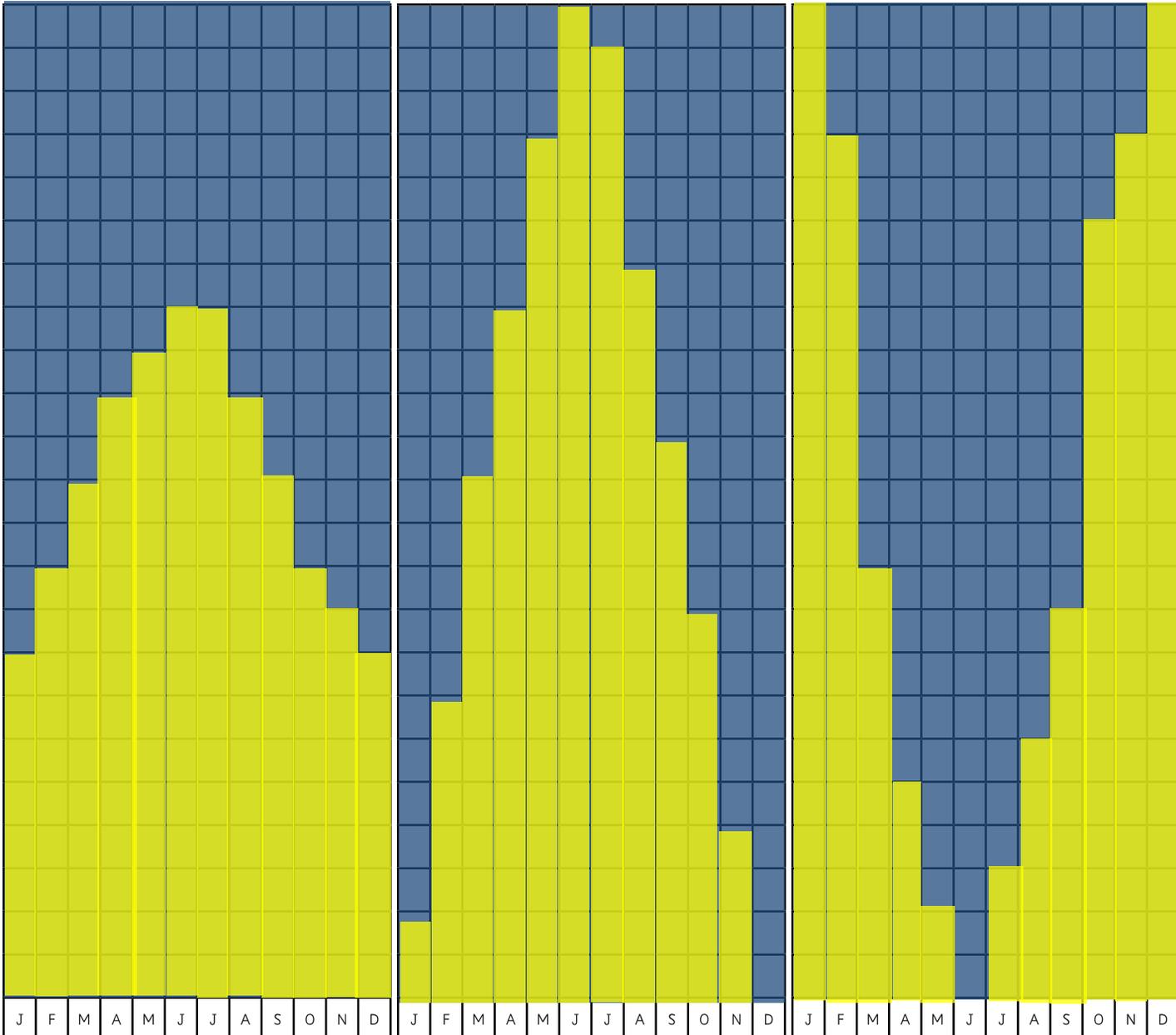
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
London	8	10	12	14	15	16	16	14	12	10	9	8
Arctic Circle	2	7	12	16	21	24	23	17	13	9	4	0
Antarctica	24	21	10	5	2	0	3	6	9	18	20	24

Shade the daylight hours for each month in yellow. Shade the remaining block in blue.

Daylight in London

Daylight in Arctic Circle

Daylight in Antarctic



What do your graphs tell you about daylight hours in the Arctic Circle and Antarctica?

The Arctic and Antarctic have opposite hours of daylight. For example, in July in the Arctic, there is 24 hours of daylight but in the Antarctic there are 0 hours of daylight. The difference in the hours of daylight from summer to winter is more extreme than in the UK.