

Circumference of the Earth

1 The first person to calculate the circumference of our planet was the mathematician Eratosthenes, in the 3rd century BC. He estimated that the Earth's circumference was between 39 060 and 40 320 km. The value known today is 40 075 km at the equator!

Only in Quebec!

2 Did you know that the word *bleuet* is a Quebecism, which is a word specific to Quebecois French? It was created to represent blueberries—a typically Canadian fruit.

Alloprof can help and it's free!

3 Monday to Thursday (5 p.m. to 8 p.m.) and Sunday (2 p.m. to 5 p.m.), talk to a teacher by phone, text or chat. Find concept sheets, crash courses, videos, exercises, games, useful tips and a help zone on alloprof.qc.ca any time!

A one-on-one lesson!

4 Nothing better than a Crash Course to review a topic! Check out Alloprof for these interactive videos that give you a chance to practise and check your understanding.

Quebec

5 Since 1999, an iris, called an *Harlequin blue flag*, has been the floral emblem of Quebec. The variety of its colours illustrates Quebec's cultural diversity.

Hard as rocks

6 The hardness of materials is classified on a scale of 1 to 10, known as the Mohs scale. For example, talc is a mineral softer than a fingernail with a hardness of 1, while diamond, the hardest substance, has a hardness of 10.

Alloprof on YouTube!

7 Did you know that Alloprof in English has over 115 educational videos in all subjects for all grades, and it's growing every day? Take a look!

The magic number 3

8 If you take any number, multiply it by 3 and add up the digits, the result is always divisible by 3!
E.g.: $22 \times 3 = 66$, $6 + 6 = 12$, $12 \div 3 = 4$

A new genre

9 In 1818, a young woman named Mary Shelley published the novel *Frankenstein*, which is considered by many to be the first work of science fiction.

Less vs fewer

10 Have you ever noticed signs saying "Five items or *less*" at your local grocery store? If so, you've spotted a common English mistake! When referring to countable nouns, it should say "Five items or **fewer**." Learn more with Alloprof!

By boat

11 The sailboat on the Canadian dime is a fishing and racing schooner named *Bluenose*. It was launched in Nova Scotia and named after a nickname used to describe its inhabitants—bluenosers.

Demonyms

12 A demonym is a word naming the inhabitants of a specific place. Many residents of Quebec towns have surprising demonyms, like *Campivallensiens* in Salaberry-de-Valleyfield or *Méchinois* in Les Méchins!

13 **Shuffling letters**
An anagram is a word obtained by mixing the letters of another word. For example, *listen* is an anagram of *silent*. An interesting coincidence, don't you think?

14 **Historical conquest**
The Mongol Empire, founded by Genghis Khan in the 13th century, was the largest contiguous land empire of all time.

15 **Hold your breath!**
Although humans and animals on Earth breathe oxygen, this gas makes up only about 21% of the Earth's air. It is nitrogen gas that makes up the majority at about 78%!

16 **A 42-year winter!**
Did you know that the seventh planet in the solar system, Uranus, only has two seasons: summer and winter? And each of them lasts ... 42 years!

17 **To the centre of the Earth**
Did you know that the deepest point on the planet, called *Challenger Deep*, is located in the Mariana Trench in the Pacific Ocean. It is almost 11 000 metres below sea level!

18 **A surprising animal...**
The naked mole rat is a popular rodent with researchers: it has a long lifespan, does not seem to be prone to cancer or neurodegenerative diseases and does not feel certain types of pain!

19 **A local discovery**
Frederick Banting, a Canadian doctor, was awarded the Nobel Prize in Physiology/Medicine in 1923 for his discovery of insulin, a substance secreted by the pancreas and used in the treatment of diabetes.

20 **What is the purpose of science?**
Science allows us to look at the world rationally. Studying science develops our critical thinking and understanding of life in all its dimensions.

21 **An author worth discovering**
Joséphine Bacon is an Innu writer and filmmaker from Pessamit. She has published several collections of poetry, including *Uiesh — Somewhere*. Through her work, she hopes to pass on her cultural heritage.

22 **The magic number 11**
To multiply any number from 0 to 9 by 11, simply write the number twice (e.g. $9 \times 11 = 99$). To multiply any 2-digit number by 11, write the two digits and place their sum between them (e.g. $13 \times 11 = 143$)!

23 **What is the purpose of art?**
Logic doesn't explain everything! The arts allow us to tap into our intuition and creativity, to produce beauty, to develop intelligence and sensitivity and so much more.

24 **The Matilda effect**
Named after the feminist activist Matilda Joslyn Gage, it is the downplaying of women's contribution to science. Instead, their contributions are often attributed to male colleagues.

- 25 **A scientist to discover**
Xue Shifeng is a biologist from Singapore. She and her team are studying the formation of fetuses to better understand the impact of genetic mutations and the development of genetic diseases.
- 26 **Canine investigations**
Did you know that all dogs have different snouts? Like human fingerprints, a dog's snout print can be used to identify it.
- 27 **Did you hear?**
Lise Meitner is an Austrian physicist who unravelled the mystery of nuclear fission. She realized that when uranium is bombarded with neutrons, it splits into smaller particles and releases enormous amounts of energy.
- 28 **Walt Disney's creativity**
In 1919, Walt Disney was fired because, according to his boss, he lacked creativity and imagination. This just goes to show: never stop believing in your strengths!
- 29 **A liquid gold mine**
Located on the border between Canada and the United States, Lake Superior is the largest of North America's Great Lakes. Did you know that it is also the largest freshwater lake in the world?
- 30 **A woman who sees big!**
Cataracts are a vision disorder that affects the lens of the eye. In 1981, the African-American ophthalmologist and researcher Patricia Bath invented the laserphaco probe, which is used to treat this problem to this day.
- 31 **An endangered resource**
The Amazon is the largest tropical rainforest on Earth spread over 5.5 million km². It is home to incredible biodiversity and absorbs an enormous amount of CO₂! Unfortunately, it is under serious threat from deforestation.
- 32 **The right to vote**
In 1893, New Zealand became the first country to grant women the right to vote. This right was not given to women in Canada until 1918 (federal elections) and in Quebec until 1940 (provincial elections).
- 33 **Taking the time to move**
Physical activity is important for everyone's health. It helps prevent illness, improves sleep, reduces stress and much more! In adolescence, at least 1 hour of daily exercise is recommended.
- 34 **Homophones**
"**They're** over **there** with **their** friends." Knowing the difference is important:
They're = They are
There = Location
Their = Possessive pronoun
- 35 **Essential insects**
We rarely appreciate the presence of bees at a picnic. Yet these pollinators play a vital role in agriculture. According to the FAO, a third of the world's food production depends on these insects!
- 36 **Punctuation**
Is it "Time to eat grandma" or "Time to eat, grandma?" Punctuation is important. Don't forget the comma, for grandma's sake! Visit Alloprof for more tips on punctuation!

- 37 Reading is healthy!**
Reading has many known benefits. Among other things, reading can reduce the risk of developing cognitive diseases such as Alzheimer's.
- 38 *Rafflesia arnoldii***
This flower is considered to be the largest in the world, with a diameter of up to 1 metre! However, it is not for the faint of heart. The flower gives off a nauseating smell of rotting meat ...
- 39 Why learn a second language?**
Learning another language broadens our understanding of the world, helps us make friends from other cultures, increases the chances of getting a job, among other things.
- 40 Bilingual Canadians**
Do you know which Canadian provinces have the highest percentage of bilingual speakers? According to the 2016 Census, together, Quebec and New Brunswick account for a little over 78% of bilingual Canadians!
- 41 What is the purpose of history?**
History helps us better understand the past and the present. It also gives us a better grasp of the diversity of civilizations and eras and helps us become reflective and objective citizens with good analytical skills.
- 42 Organizing your schoolwork**
- Make a plan
 - Choose a quiet space
 - Get the hardest task out of the way first
 - Use Alloprof's Motivational Timer!
- 43 Exam alert**
Exams coming up? Check out the Allopro website to find everything you need to help you prepare!
- 44 What are flags for?**
A flag is an easily recognizable symbol. It allows a person to show their membership to an organization or nation.
- 45 Canadian Spelling**
Have you ever noticed that *color* and *colour* are spelled differently? Or *dialog* and *dialogue*? Is it *traveling* or *travelling*? Hop over to Alloprof to learn all about Canadian spelling.
- 46 An NHL legend**
Because he always kept his cool, goalie Georges Vézina was nicknamed the *Chicoutimi Cucumber*, from the expression *cool as a cucumber*. He left his name on the iconic Vezina Trophy, awarded to the NHL's best goaltender.
- 47 Ethical fashion**
Fast fashion has a huge impact on the environment. The solution? Buy less new clothes and opt for quality products and sustainable brands!

48

An avant-garde woman

Hypatia of Alexandria was a mathematician and philosopher who lived in ancient times! According to the records, she commented on mathematical writings and taught philosophy, among other things.

49

How far is the lightning?

To find out the distance in kilometres that separates you from a bolt of lightning during a thunderstorm, count the number of seconds between the bolt of lightning and the loud thunder that accompanies it, then divide by three.

50

Space relics

In 2018, a meteorite crashed in Madagascar. According to researchers, it dates back 4.56 billion years ago, which is when the solar system was formed!

51

Borrowed words

Languages often borrow words from each other. In English, *rendez-vous*, *hotel*, *cuisine*, *literature* and *military* are borrowed from French and *skunk*, *toboggan* and *hickory* are borrowed from Indigenous languages.

52

Numbers and letters

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