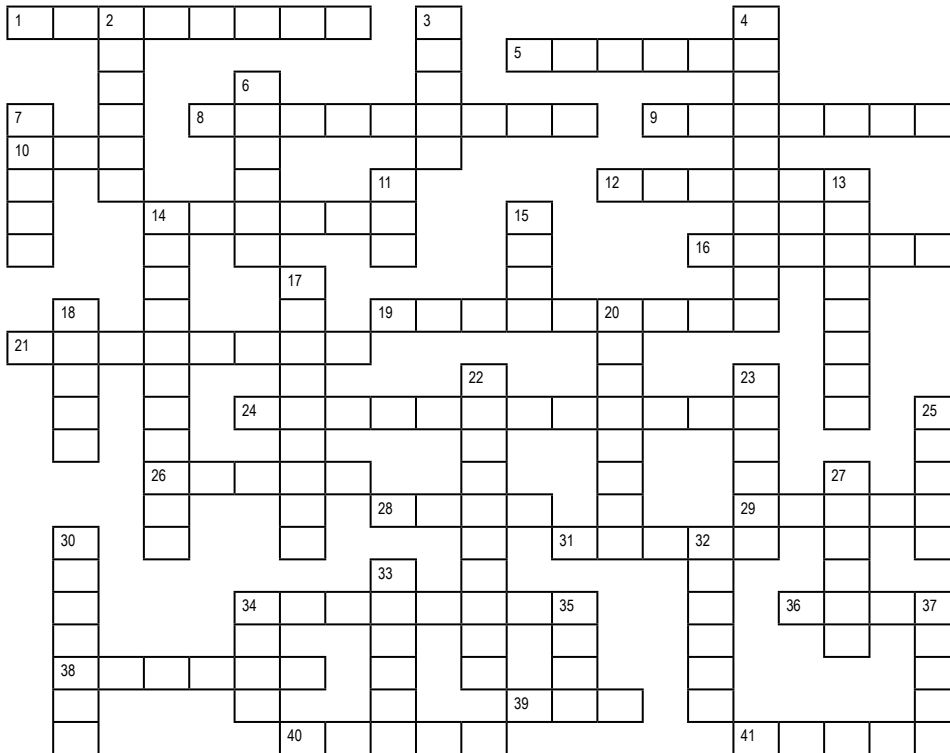


# Test your knowledge

All of the answers can be found in this issue of Quest



**ACROSS**

- 1 A kind of fridge that uses mixtures of two isotopes
- 5 A sample of living tissue taken for examination or culture
- 8 Otters and wolverines are grouped under this name
- 9 A storage facility for a collection of biological samples
- 10 The IUCN \_\_\_ List of Threatened Species
- 12 A gas used for extreme cooling and balloons
- 14 A temperature scale that starts at absolute zero
- 16 A single unit of light
- 19 Describes temperatures between -150°C and absolute zero
- 21 English common name for *Artemisia* or umhlonjane
- 24 A surveying instrument that uses radio waves to measure distances
- 26 An altimetry instrument on NASA's ice-monitoring satellite
- 28 \_\_\_-Einstein condensates are a fifth state of matter
- 29 A project taking place beneath a mountain in Italy
- 31 An experiment in the Southern Ocean
- 34 Slowly moving masses of ice
- 36 Acronym describing the vapours given off by solvents
- 38 The kind of virus that causes COVID-19
- 39 An oceanographic instrument that records temperature and other parameters
- 40 A kind of dish used for laboratory cultures
- 41 Cryogenic condensation relies on \_\_\_ change

**DOWN**

- 2 This 1.0 m telescope at SAAO's field station in Sutherland was installed in 2017
- 3 Shrimp-like crustaceans that support Antarctic food webs
- 4 Term for organisms living on the underside of rocks
- 6 The space telescope, sometimes called HST
- 7 The cryo\_\_\_ is a South African invention used in eye surgery
- 11 The nucleic acid that stores genetic instructions
- 13 A change in a DNA sequence
- 14 Africa's highest and coldest mountain peak
- 15 Acronym for the climate pattern caused by periodic variation in sea surface temperatures
- 17 The \_\_\_ Nebula is the coldest natural place in the universe
- 18 An app-based game used in the Mandela Day coding tournament
- 20 Describes the lowest temperature at which the liquid phase is present in a mixture
- 22 The term used for all the frozen parts of the planet
- 23 The solid form of carbon dioxide
- 25 Describes species introduced from outside their natural range
- 27 This research station in Antarctica holds a temperature record
- 30 This organisation focuses on seabird rehabilitation
- 32 The boiling point of \_\_\_ nitrogen is -196°C
- 33 NASA's ice monitoring satellite
- 34 The basic unit of biological inheritance, passed from parent to offspring
- 35 Largest telescope at the SAAO field station in Sutherland
- 37 Fossils of the \_\_\_tooth cat have been found at Langebaanweg

## BRAINTEASERS

Lethabo's mother was 27 when he was born. 8 years ago she was twice as old as Lethabo shall be in 5 years' time. How old is Lethabo now?

Mary's age this year is a multiple of 8. Next year it will be a multiple of 7. How old is Mary?

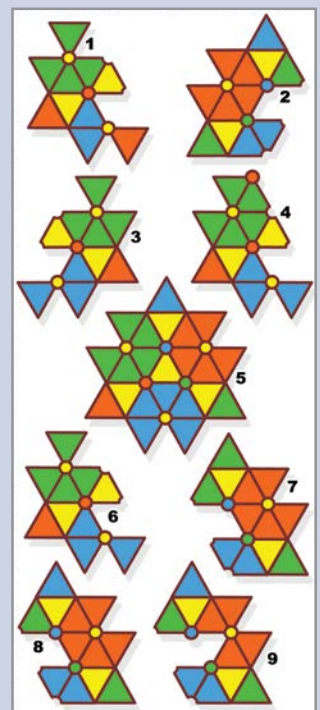
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**Answer to Maths Puzzle no. 53**

Place one white marble in one bowl, and place the rest of the marbles in the other bowl (49 whites and 50 blacks). This way you begin with a 50/50 chance of choosing the bowl with just one white marble, so your life is saved! But even if you choose the other bowl, you still have almost a 50/50 chance at picking one of the 49 white marbles.

## PICTURE PUZZLE

Which two pieces were used to produce the pattern 5?



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