

# Instructions

What benefits do Caribbean manatees reap from their own farts?

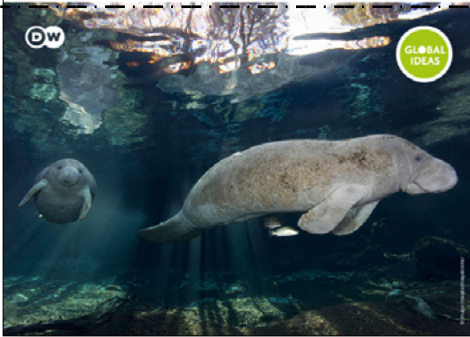
Quiz | Global Ideas | Question 1

Answer a) is correct.

Swimming as much as 700 kilograms, Caribbean manatees, also known as Cows of the Sea, do not have a swim bladder. Instead, they rely on the air in their intestines to float. When the manatee manatees are full, the manatees can easily float on the surface of water. At other times, they have to do it by taking in deeper water, to release some of the air.

Manatees spend most of their lives in shallow, warm waters. They are herbivores and eat a diet of green vegetation every day. As they digest their food, methane gas is created and stored in their intestines.

a) Caribbean manatees fart in order to dive  
b) The intense smell of their farts keeps predators away  
c) The farts act as a kind of turbo boost. When danger lurks, special muscles allow them to explosively release their intestinal gas



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Quiz | Wild animals | Question 1

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Presentation card





## What benefits do Caribbean manatees reap from their own farts?

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**Answer a) is correct.**

Weighing as much as 700 kilograms, *Caribbean manatees*, also known as *Caribbean sea cows*, devour several hundred pounds of green vegetation every day. As they digest their food, methane gas is created and stored in their intestines.

The effect is like that of a rubber boat. When the methane reservoirs are full, the manatees can easily float on the surface of water.

All these gentle giants have to do if they want to graze in deeper waters, is to release some of the air. In other words, fart.



What do bears, seals and kangaroos have in common?

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- a) They are all descended from dinosaurs
  - b) They can all delay their pregnancies
  - c) All three live in the wild on the Australian island of Tasmania
- 

**Answer b) is correct.**

More than 130 mammals including *bears* and some species of *seal* and *kangaroo* can delay a pregnancy that has already started. The smallest of the 50 species of kangaroo, the *Australian tammar wallaby* (*Macropus eugenii*), can delay the birth of its young by up to 11 months.

What is biologically known as embryonic diapause, is a useful trick when there is not enough food or water, as it increases the chances of the young surviving.



A wildlife camera team filmed an incredible interaction between puffer fish and dolphins. What were they doing?

- a) Puffer fish were trying to get close to the dolphins, which is where they find food
- b) Dolphins and puffer fish protect each other from predators
- c) Dolphins are thought to get high on puffer fish toxins

**Answer c) is correct.**

Several years ago, a BBC film crew observed how *dolphins* were not only playing with the *puffer fish* but were also nibbling on them. They passed the fish – which are too slow to swim away – from one dolphin to the next and bobbed up and down on the surface as if in a trance.

The BBC team believes what they were filming was a case of drug use in the animal world. When faced with danger, the puffer fish releases the nerve poison tetrodotoxin to kill its enemies. In small doses, however, it can have a narcotic effect.



What do the Nile crocodile and a bird known as the water thick-knee have in common?

- a) The water thick-knee is the Nile crocodile's favorite food
- b) The bird warns the crocodile of danger
- c) The water thick-knee sings for the crocodile every morning

**Answer b) is correct.**

The *Nile crocodile*, which is native to Africa, has an unusual relationship with the *water thick-knee* (*Burhinus vermiculatus*). Although, the giant reptiles also eat birds, these two species hatch their eggs next to each other in the sand.

If the water thick-knee spots danger, it whistles to attract the crocodile's attention. The predator then protects its own eggs and those of its feathered friend.



Wild animals travel long distances to escape winter. The Arctic tern is the world record-holder. How many kilometers do the sea birds travel each year?

- 
- a) 25,000 kilometers
  - b) 50,000 kilometers
  - c) 80,000 kilometers
- 

**Answer c) is correct.**

The *Arctic tern* commutes between the Arctic around the North Pole and the Antarctic around the South Pole. This gives the birds, which weigh just 130 grams, two summers a year.

Depending on the exact location of their breeding ground, the terns travel up to 80,000 kilometers annually, which is twice the circumference of the planet.



What is the heaviest land animal?

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- a) Hippopotamus
  - b) Elephant
  - c) Rhinoceros
- 

**Answer b) is correct.**

African bull *elephants* weigh between six and seven tons, which is as much as a mid-sized heavy goods vehicle. Even baby elephants weigh 100 kilograms at birth.

There are also elephants in Asia, but they are smaller and lighter than their African counterparts.

What these different species of gray giants have in common, is that their numbers are threatened. Elephants are largely poached for their tusks, but loss of habitat, as a result of deforestation and agriculture, is also causing problems.





## What is the fastest land animal?

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- a) Ostrich
  - b) Mexican pronghorn
  - c) Cheetah
- 

**Answer c) is correct.**

*Cheetahs* often spend hours lying in wait, only to then dash off at speeds of over 100 kilometers per hour (km/h) at the sight of an antelope. Their strides can be as long as seven meters. But the big cats can't maintain such velocity for more than a couple of seconds.

The record sprinter with the black spotted gold-yellow fur is as good as extinct in Asia. Iran is home to the small remaining population. In Africa, they can only be found south of the Sahara.

At 90 km/h, the *Mexican pronghorn* is the fastest long-distance runner, while the *ostrich* is the fastest bird and is capable of 70 km/h speeds.



What is the heaviest animal ever to live on planet Earth?

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- a) Blue whale
  - b) Argentinosaurus
  - c) Whale shark
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**Answer a) is correct.**

A *blue whale* can weigh up to 200 tons, which is about as much as 2,500 adults or 33 *elephants*. Blue whales are almost twice as heavy as the Argentinosaurus, the largest dinosaur ever discovered. Just the tongue of a blue whale weighs as much as an elephant.

Blue whales can only survive under water, where they are practically weightless. On land, they would be crushed by their own weight.



## Why did dinosaurs die out?

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- a) An asteroid struck Earth and destroyed their habitat
  - b) Prehistoric man killed them off
  - c) An infectious illness did them in
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**Answer a) is correct.**

The evidence suggests that *dinosaurs* were wiped out by a change in climate triggered by an asteroid that struck off the coast of Mexico.

When it hit Earth with a force as powerful as several nuclear bombs, trees and plants within a radius of thousands of kilometers went up in flames.

The dinosaurs that survived this crash and burn, were then plunged into a new ice age resulting from the sun being eclipsed by smoke and soot particles.

Humans and dinosaurs never shared the planet. Humans evolved many millions of years after the extinction of prehistoric animals.



When settlers imported rabbits to Australia more than 100 years ago, they became a pest. How is the problem handled today?

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- a) Armed drones hunt the rabbits
  - b) Electric fences are designed to keep rabbits off fields
  - c) Deadly viruses and poisoned bait are used to reduce rabbit populations
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**Answer c) is correct.**

Two dozen wild *rabbits* were imported into Australia in 1859 for meat and fur production. In the absence of natural enemies, the animals were able to reproduce at incredible rates. And the problem is not only that they turn fertile farmland into steppe, but that they pose a threat to Australia's flora and fauna. Even today the rabbits strip farmers' fields bare.

Because sprawling fences designed to keep the animals from spreading, failed to achieve that aim, new cultured viruses only fatal to rabbits are now used in the fight against the infestation. Toxic bait is another attempted means of reducing the population.



Mammoths died out at least 4,000 years ago, but there are plans to bring them back using genetic engineering. Why?

- 
- a) Humans feel bad that their ancestors killed them off
  - b) They will trample and thereby flatten the permafrost in North America
  - c) They are destined for an amusement park to attract tourists
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**Answer b) is correct.**

*Mammoths* are an extinct species of elephant, and researchers want to take advantage of this. The idea is to implant a genetically modified embryo containing genetic material from a millennia-old mammoth into an *elephant* cow. Mammoth herds could be reintroduced to Siberia and North America, where they once lived.

The idea is that the heavy animals would then trample and solidify the permafrost, which in turn could help to slow climate change. When rising temperatures cause permafrost to thaw, large quantities of climate-damaging gases are released. The hope is that in walking on, and thereby compacting the permafrost grounds, the herds would prevent this process.



## How many animal species live in our tropical rainforests?

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- a) Only 1% of all known animal species
  - b) About 90% of all animal species that have been discovered so far
  - c) Around half of all known animal species
- 

**Answer c) is correct.**

Tropical rainforests are located in rainy regions on both sides of the equator – including areas in South America, Central Africa and Southeast Asia. They are characterized by particularly rich species diversity.

Experts estimate that half of all animal species on Earth live in rainforests, even though rainforests now only cover 3 to 4% of the planet's surface.



How long can turtles live? Up to ...

- a) 80 years
- b) 200 years
- c) 500 years

**Answer b) is correct.**

It's hard to determine the age of *turtles* given that they often outlive humans. At least, that's the case with giant turtles, such as the *Galapagos tortoise* or the *Seychelles giant tortoise*.

It is believed, however, that they can live to be 200-years-old. Smaller species of turtle generally have a much lower life expectancy, averaging between 30 and 40 years.



What does the word orangutan mean?

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- a) Red-haired giant
  - b) Forest-dwelling humans
  - c) Tree-dwellers
- 

**Answer b) is correct.**

The word *orangutan* comes from the Malay language, which is spoken in Indonesia. It means “forest-dwelling humans.” Certain similarities between humans and orangutans are revealed through our genes, which are 96.5% identical.

The red-haired apes live in the tops of trees in the tropical rainforests of Borneo and Sumatra. Males grow to heights of up to 1.4 meters and can weigh as much as 100 kilograms, which makes them the biggest tree-dwelling animals on Earth.





How many hours a day do sloths sleep?

- a) 10 hours
- b) 15 hours
- c) 20 hours

**Answer b) is correct.**

*Sloths* live in trees of the Central and South American tropical rainforests. They spend most of their time curled up in the branches or hanging from them upside down. And spend around 15 hours sleeping.

They have an exceptionally low metabolic rate, which means they move slowly through the trees. On average, sloths travel 41 meters a day, which is less than half the length of a standard soccer pitch.



What was zoologist Robert Treat Paine, who died in 2016, known for?



- a) He discovered a rare subspecies of koala on an Australian island
- b) Paine came up with the concept of keystone species, still in use today
- c) He was the first US citizen to win the Nobel Prize for Biology

**Answer b) is correct.**

Robert T. Paine introduced the concept of keystone species into ecology. These are animal species that have a disproportionate influence on biodiversity.

Paine's research included removing *starfish* from the ocean floor where they would ordinarily eat *mussels* and *snails*. In the absence of the starfish, their prey were able to reproduce rapidly enough to cause the ecosystem to become fragile within just a few months. Of the 15 species found on the ocean floor at the start of the experiment, only eight remained.