



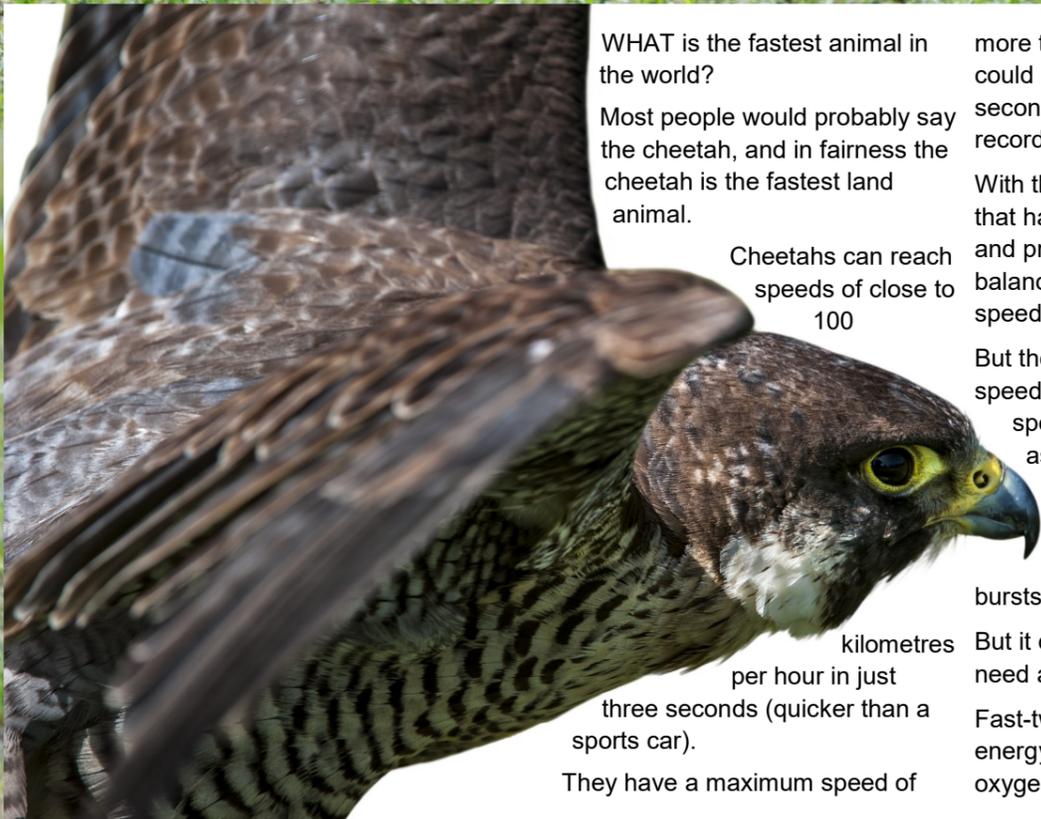
Is the cheetah the fastest animal in the world?

NOT EVEN CLOSE

The horsefly is the fastest insect in the world.



HOT PACE: Cheetahs are super fast, but how do they compare to the speed of others in the animal kingdom, such as peregrine falcons? Pictures: iStock/ kandfoto/ Phillipe Clement



WHAT is the fastest animal in the world?

Most people would probably say the cheetah, and in fairness the cheetah is the fastest land animal.

Cheetahs can reach speeds of close to 100

kilometres per hour in just three seconds (quicker than a sports car).

They have a maximum speed of

more than 110km/hr. Cheetahs could run the 100m sprint in about 6 seconds, leaving Usain Bolt's world record of 9:58sec in their wake.

With their long legs and body, claws that have evolved to grip the ground and propel them, and a long tail for balance, cheetahs are built for speed.

But the most important influence for speed are muscles, or more specifically muscle fibres known as "fast-twitch" fibres.

Fast-twitch fibres contain reserves of energy that can be used to produce short bursts of strength or speed.

But it doesn't take long before they need a rest.

Fast-twitch fibres run mainly on an energy system that doesn't need oxygen.

This is called anaerobic energy.

Slow-twitch muscle fibres, on the other hand, are less energetic but can be used for a lot longer before they get tired.

They use an aerobic energy system, and require oxygen.

Cheetahs and other fast animals, have loads of fast-twitch fibres in their muscles.

Rather than using oxygen, slow-twitch fibres quickly burn through the body's supply of a fuel called adenosine triphosphate or ATP.

Found in all lifeforms, ATP is the molecule that stores the energy we need to do just about everything we do, and is present in every cell of the body.

But let's get back to those fast animals.

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The need for speed

From Page 1

If cheetahs are not the fastest animal on earth what is?

The simple answer is the peregrine falcon.

It reaches speeds of more than 320km/hr, although this is during high-speed dives rather than horizontal flight.

In fact, peregrine falcons, which are present in many parts of the world including Tasmania, have been recorded to reach speeds of up to 389km/hr.

But there are many other birds that fly faster than a cheetah can run.

The flightless ostrich is no slouch either.

Ostriches would not beat cheetahs over 100 metres, but unlike the explosive cats, which tire after about a minute, an ostrich can sustain a speed of about 50km/h for as long as 30 minutes.

The fastest fish are also quicker than a cheetah.

A black marlin can power along through the water at more than 130km/hr.

In fact, the cheetah is not even the fastest mammal, because a Mexican free-tailed bat can fly at 160km/hr.

OK, so the peregrine falcon is the fastest animal in the world.

Well, actually it depends how you measure speed.

Many scientists believe the speed of an animal should be measured relative to its size, or how fast it travels relative to its body length.

On this basis, the world's fastest land animal is a tiny mite native to southern California, *Paratassotomus macropalpis*.

Scientists have clocked it speeding along at 322 body lengths per second.

It surpassed the previous record holder, the Australian tiger beetle, which travels at 171 body lengths per second.

By comparison, cheetahs can only move at 16 body lengths per second - what a slow coach!

Meanwhile, the fastest known movement by an animal belongs to an ant found in Australia, Africa and South-East Asia.

Using high-speed cameras, scientists at the University of Illinois discovered the Dracula ant can snap its jaws (mandibles) at 320km/hr, 5000 times quicker than the blink of an eye.

Dracula ants use the snap of their jaws to stun their prey.

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Create a sprint to the finish line

Have you ever compared the maximum speeds of animals?

Your challenge is to research a group of animals and present the speeds they can reach in a graph.

You can compare the fastest in the animal kingdom, the fastest birds, the fastest insects, the fastest Tasmanian animals, or any other group you choose.

Using paper, a pencil and a ruler, draw a line to show speed in kilometres per hour.

You will need to use a scale, as we

have in the example provided below, where every centimetre represents 20 kilometres.

Then use the line as a guide to display the animals' top speeds.

You could write the name of the animals above the line, or draw pictures of each animal to make it look like they are in race.

Children's University Tasmania members can earn stamps in their passports for this challenge, at the discretion of their school coordinator.

0 km/hr

100 km/hr

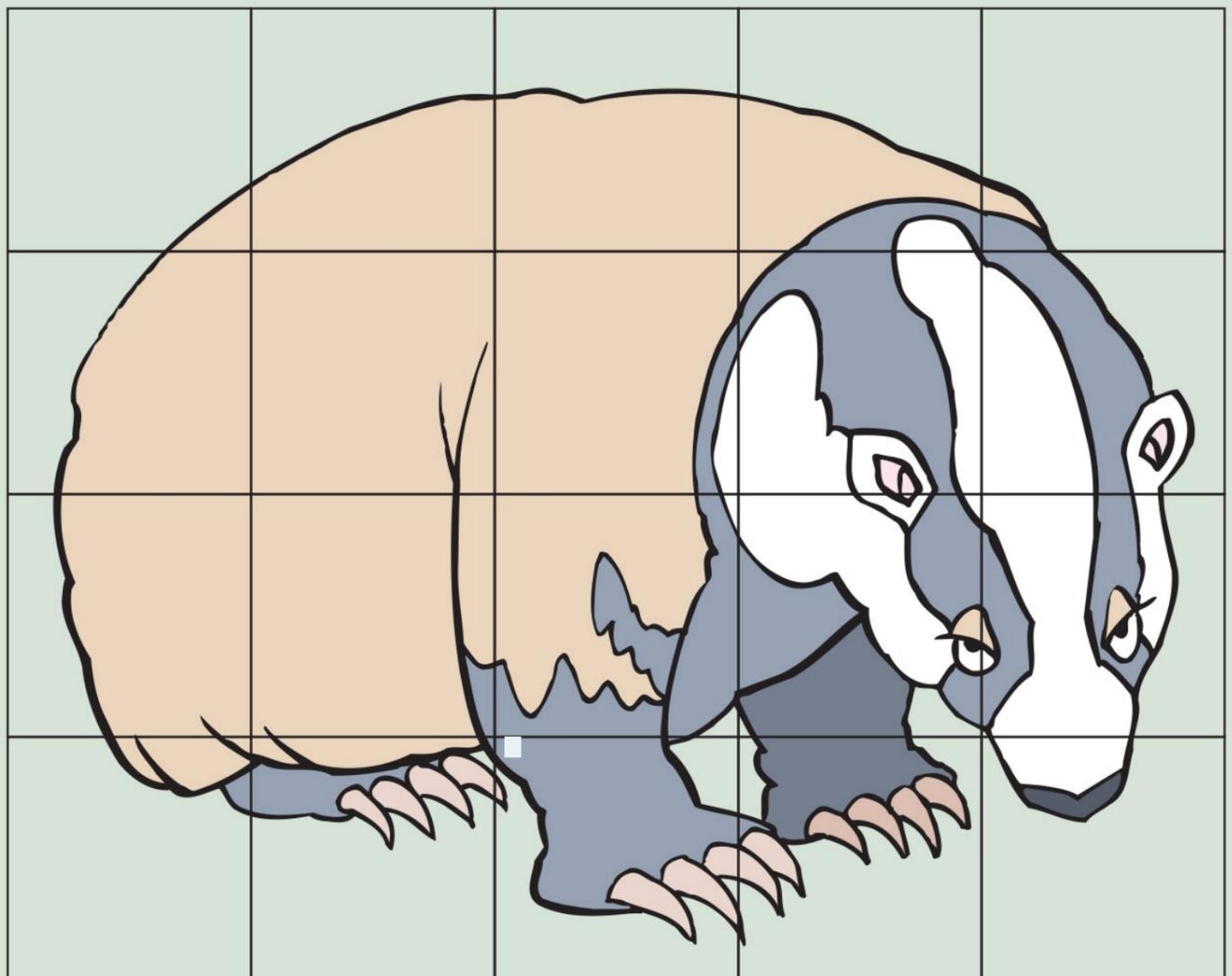
200 km/hr

300 km/hr

400 km/hr

Draw a **BADGER**

Using a pencil and a ruler draw a grid with the same number of squares as this one. Then, still using your pencil, copy what is in each of these squares into the corresponding square on your grid. Use a fine tipped pen or texta to ink your badger in, then rub out the grid. Now finish him off with some colour!



Artwork: www.johnpollifarmer.com.au/



DID YOU KNOW?

Badgers live in family groups in large burrows that have many chambers and passages.

