Sedgwick trails
Twilight at the Museum

Could ichthyosaurs see in the dark?

Explore the Museum and learn twilight facts about our collections.
**Can you find all six twilight objects?**

Use the map and look for the purple dinosaur symbols, like this one, to help you.

**What does Twilight mean?**

Twilight is the period just before it becomes dark in the evening, and just before it becomes light in the morning. We often describe these times as **dawn** and **dusk**.

Animals that are most active during twilight, such as foxes, mice, bats, cats and deer are described as **crepuscular**.

Distant stars and planets become visible in the sky during twilight.

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**Sedgwick Museum**

**of Earth Sciences**
1 Twilight trilobites
Twilight fact

Trilobites are an extinct type of arthropod that lived between 521 and 252 million years ago. Over 22,000 species have been discovered.

These strange-looking fossils are the heads of a group of trilobites called trinucleids.

Many trilobite groups had complex eyes, but these trilobites were eyeless. They lived in deep water, where there was no sunlight, and would use other senses to navigate their dark world.

They would use their unusual heads to dig in the sediment for food.
2 Shooting stars
Twilight fact

Have you ever seen a shooting star in the night sky?

Shooting stars are space rocks called meteors. Many meteors enter Earth’s atmosphere every day, but it is much easier to spot them after dark.

The glowing streak of light in the sky is the meteor heating up to around 1800 degrees Celsius as it enters Earth’s atmosphere.

Most meteors burn up in Earth’s atmosphere. If we discover one that has reached the Earth’s surface, we call it a meteorite.
3 The secrets of the ‘Twilight Zone’
Twilight fact

The oceans’ twilight zone extends from 200 to 1,000 metres below the surface. Only 1% of the light from at the surface of the ocean reaches the twilight zone.

Life there relies on ‘marine snow’ made of plankton for food.

Using fossil plankton, like these microfossils, scientists have discovered that global cooling about 15 million years ago helped form the twilight zone. The cooling water acted as a refrigerator, preserving the marine snow for longer, and allowing more animals to feed on it.

The twilight zone is under threat from climate change due to the warming oceans.
Ichthyosaur eyes
Ichthyosaurs are an extinct group of marine reptiles that lived around the same time as the dinosaurs.

Many were fast, active hunters, like today’s dolphins, and had similar-shaped bodies.

These bones are from the eye of an ichthyosaur called *Ophthalmosaurus*. Its name means ‘Eye lizard’ in Greek. The ring of bones is called a sclerotic ring. This would’ve supported its huge eyeballs.

Its eyes allowed it to hunt fish and squid in the deep sea.
5 Tiny Twilight Terrors
Twilight fact

This jawbone is from one of the earliest modern mammals. Named *Trioracodon*, it lived about 145 million years ago, during the late Jurassic.

Its arrangement of teeth is unlike any other mammal but large, sharp canines tell us that it was a carnivore.

*Trioracodon* was about 25cm long, smaller than a modern weasel. Like weasels and other small carnivores, they were fierce hunters that were probably most active at night.
Darwin’s skylight
Twilight fact

This is a reconstruction of Charles Darwin’s cabin on the ship HMS Beagle.

During the day, Darwin would share the cabin with two other men. There was not much room. The ship's library was on one wall, and a large table filled most of the remaining space.

A skylight helped brighten the room for Darwin to study.

Darwin hung a hammock over the table to sleep. Each night, he would watch the stars and the night sky through the skylight.