The Smart Octopus

Scientists have known for a long time that chimpanzees and dolphins are intelligent. Cats and dogs have brains and use them. These pets also have emotions like happiness or sadness. They are playful. They have their own personalities. Scientists have found that an unlikely animal has been showing signs of intelligence: the octopus.

The octopus lives in the ocean and does not have a backbone. Its bag-like body and eight long tentacles flow along freely as it swims in the ocean water. Octopus tentacles have suckers along the bottom. They can grab things with great strength.

The octopus belongs to the same animal family as clams. Clams do not have brains and cannot move freely. They sit on the ocean floor inside their shells. They wait for food to come to them.

So how did the octopus become so unlike a clam? Scientists think that long ago the octopus once had a shell and no brain. Then, at some point, the octopus lost the shell. In order to survive, the animal developed a brain. For some animals, the octopus was prey. Without a shell, it had little protection from animals that hunted it. It also had to figure out how to catch its own food.

Not having a shell has its advantages. The octopus can move freely and hunt for its food. It can swim this way and that. It can hide. It can also follow its prey in a high-speed chase.

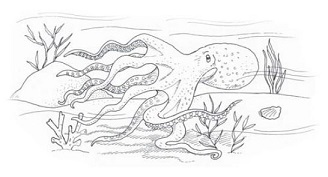
Scientists want to prove that the octopus has a brain, so they have performed tests. One test proved that the octopus knows the difference between two people. They put eight octopuses into a tank. Then two people came near the tank. One person fed the octopuses and the other one touched them with a stick. Within a week, the octopuses moved toward the feeder. But they stayed away from the person who annoyed them.

Another scientist gave octopuses little boxes with latches. The octopuses figured out how to open the latches!

One strange thing about octopus intelligence is that it’s not just in its brain. Its tentacles have minds of their own, too!

Only intelligent animals play, and the octopus is playful like dogs and cats. It plays with toys like floating balls and plastic toys.

The octopus also knows how to protect itself. When it is resting, it will find an open place in the rocks where it can hide. An octopus has even been seen placing smaller rocks in front of its hideaway. Now that’s using its brain!



1. Choose the word that helps to explain what prey means.

For some animals, the octopus was prey. Without a shell, it had little protection from animals that hunted it.

1. This question has two parts. First, answer Part A. Then, answer Part B.

**Part A**

What is the main idea of the article "The Smart Octopus"?

* 

A.

Scientists have proven that octopuses are intelligent.

* 

B.

The octopus can be a very playful sea animal at times.

* 

C.

The octopus is an interesting animal that has eight arms.

* 

D.

Chimpanzees, dolphins, octopuses, cats, and dogs are smart.

**Part B**

Which sentence from the article **best** supports your answer in Part A?

* 

A.

Scientists have known for a long time that chimpanzees are intelligent and that dolphins are very smart

* 

B.

Scientists have found that an unlikely animal has been showing signs of intelligence: the octopus.

* 

C.

The octopus lives in the ocean and does not have a backbone.

* 

D.

So how did the octopus become so unlike a clam?

Wonderful Spider Webs

Recently, a biologist found the largest spider web ever seen. It is also the strongest. The Darwin’s bark spider spins giant webs. They can be five feet tall and six feet wide. But this big web needs help to stay up. The strands that support the webs can be eighty-two feet in length.

How does this spider build a web that large? It makes a super strong silk. This material is twice as strong as other spiders’ silk. The material has to be strong. These spiders spin their webs over small streams. Many insects fly over water looking for food. One web can catch thirty mosquitoes at a time. Scientists are still trying to understand how they get lines across a wide river.

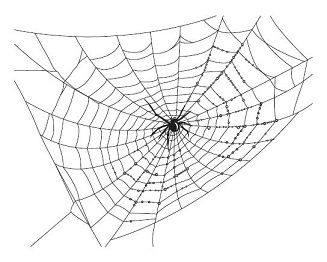
The golden silk spider creates another amazing web. Its strands look like finely spun gold. The web is also super sticky. The sticky silk is added after the spider builds a base of regular silk. These webs have to be rebuilt often. The stickiness wears out in the rain. The spider eats the old web. Then it reuses it to build more webs.

Golden silk spiders also place chemicals on the web. They don’t want other animals stealing their food. They build large webs in tree branches. These webs can be more than three feet across. The spiders also remove parts of their webs in high winds to prevent damage.

Another fascinating web is the funnel spider’s net. Funnel spiders build a web shaped like a cone. It is small, less than six inches wide. Funnel spiders are very poisonous. They have to be because their silk is not sticky. Funnel spiders can feel prey walking on their nets. Then they run out and bite their meal.

The spider hides inside a silk passageway in the middle of the funnel. It also creates “trip-lines.” They warn the spider when something is near. Rain often floods these webs. Funnel spiders cannot swim. They stay protected under rocks or logs.

A spider’s silk has amazing strength, so it is something humans want to use. Golden silk spider webs have been used as fishing nets. Scientists could rebuild parts of the human body with this silk. It is strong but also can stretch. A mesh of spider silk could repair damaged skin. Who knows what new ideas will dawn on scientists in the future.



1. Compare and contrast the golden silk spider's web and the Darwin's bark spider's web. Choose the details and drag them into the correct boxes. Use all of the details.

* **looks like gold**
* **can be very large**
* **is very sticky**
* **often found in tree branches**
* **used to catch food**
* **made of very strong silk**
* **found over small streams**
* **golden silk spider web**
* **Darwin's bark spider web**
* **both**

1. Pick two reasons why the author talks about different types of webs in the article.

* 

A.

to show how webs are rebuilt

* 

B.

to show how webs can be similar

* 

C.

to show problems caused by sticky webs

* 

D.

to show the way spiders build their webs step-by-step

* 

E.

to show how webs can be very different from each other

* 

F.

to show what scientists have learned about webs over time

1. Reread the sentences from “Wonderful Spider Webs” and “The Smart Octopus.”

Recently, a biologist found the largest spider web ever seen.

They have their own personalities. Scientists have found that an unlikely animal has been showing signs of intelligence: the octopus.

Which of the following statements is supported by these passages?

* 

A.

As long as animals have food and shelter, they will continue to do impressive things.

* 

B.

As time goes on, we learn more about animals and the amazing things they can do.

* 

C.

Octopuses and spiders have changed a lot over the years.

* 

D.

Spiders and octopuses have very large brains.

1. Drag the sentences from “The Wonderful Spider Web” and “The Smart Octopus” into the correct boxes based on whether they include a comparative word, superlative word, or neither.

* **An octopus has even been seen placing smaller rocks in front of its hideaway.**
* **Another fascinating web is the funnel spider’s net.**
* **It is also the strongest.**
* **Recently, a biologist found the largest spider web ever seen.**
* **When it is resting, it will find an open place in the rocks where it can hide.**
* **comparative**
* **superlative**
* **neither**

1. Drag the words that do not end with the /er/ sound (like in the word reader) to the correct box.

* **declare**
* **actor**
* **restore**
* **cellar**
* **sister**
* **severe**
* **words that end with the /er/ sound (like in the word reader)**
* **words that do not end with the /er/ sound (like in the word reader)**

1. Select the word that is spelled correctly in each sentence.

He used to be an acter, but now he performs in the circus.

She perpared the garlic by chopping it.

She likes to use her sister as her tennis partnar.

1. Use the drop-down menus to select the correct vocabulary word that completes the sentence.

Bob seemed   that we were trying to get his attention.

Because its numbers are growing, the bald eagle is not on the   animal list.

The book was so   that she could not quit reading it.