

# Winter Writing Sample 2016

## Fourth Grade

Writing Window: February 1 – February 29

### **STUDENT INSTRUCTIONS:**

Read the writing prompt below and think of some ideas you can write about on the lined paper given to you by your teacher. Your response should be approximately one or two paragraphs in length.

### **Writing Prompt**

Compare how the authors of these articles show how the octopus and spiders are interesting animals. Support your answer with clear text evidence.

## **Grade 4 – Winter Writing**

Lexile Measure: 730L  
Mean Sentence Length: 10.57  
Mean Log Word Frequency: 3.49  
Word Count: 391

### **The Smart Octopus**

Scientists have known for a long time that chimpanzees are intelligent. They also know that dolphins are very smart. Anyone can look at cats and dogs and tell that they have brains and use them. These pets also have emotions like happiness or sadness. They are playful. Each of these animals has its own personality. Scientists have found that an unlikely animal has been showing signs of intelligence. This animal is the octopus.

The octopus lives in the ocean. This animal 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. These suckers can grab and hold things with great strength.

The octopus can move freely and hunt for its food. It can dart this way and that. It might hide and pop out when a meal passes by. It can also swim and follow its prey in a high-speed chase.

In order to prove that the octopus has a brain, scientists have been keeping an eye on them for a long time. They also 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. They stayed away from the person who annoyed them.

Another scientist gave octopuses puzzles, or 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 – the tentacles have minds of their own, too! For example, after an arm is cut off from the body, it will still look for food. When it catches it, the arm will take the food to where the mouth should be!

Only intelligent animals play. Again, the octopus is also playful like dogs, cats, and other pets. They play 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!

## **Grade 4 – Winter Writing**

Lexile Measure: 740L  
Mean Sentence Length: 9.54  
Mean Log Word Frequency: 3.27  
Word Count: 353

### **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 nearly thirty square feet. But the big web needs help to stay up.

To build a web that large, the Darwin's bark spider makes a super strong silk. This material is twice as strong as other spiders' silk. One reason it has to be strong is because the spiders spin them 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 a spider the size of a coin can get its lines across a wide river.

The golden silk spider creates another amazing web. In the sunlight, its strands look like finely spun gold. The web is also super sticky. These webs have to be taken down and rebuilt every so often. The stickiness wears out in the rain and when it collects dust. The spider actually eats the old web. It reuses the material to build more webs.

Golden silk spiders also place chemicals on the web. This keeps ants away. They don't want other animals stealing their food. They build large webs in tree branches or on the edges of forests. These webs can be more than three feet across.

Another fascinating web is the funnel spider's net. Unlike the golden silk spider, 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 a beetle or cockroach walking on their nets. They run out and bite their meal.

A spider's silk has amazing strength. 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.