

ScienceNews

EDUCATOR GUIDE



XBN83/MOMENT/GETTY IMAGES PLUS

September 24, 2022

News Stories Give Spiders a Bum Rap



September 24, 2022

News Stories Give Spiders a Bum Rap

About this Guide

Are your students creeped out by spiders? They aren't alone. In this Guide, students will learn about how inaccurate news coverage has promoted common misconceptions about the largely harmless critters. Students can also discuss misinformation, thinking about where they've encountered it before, its impacts and ways to correct it.

This Guide includes:

Article-based Comprehension Q&A — Students will answer questions about the online *Science News* article "[News stories have caught spiders in a web of misinformation](#)," which describes new research looking at how spiders are portrayed by the media. A version of the article, "News stories give spiders a bum rap" appears in the September 24, 2022 issue of *Science News*. Related standards include NGSS-DCI: HS-LS2; MS-LS2.

Student Comprehension Worksheet — These questions are formatted so it's easy to print them out as a worksheet.

Cross-curricular Discussion Q&A — Let spiders and their unfair reputation help you teach students about identifying and correcting misinformation. Learning outcomes: Media literacy, communicating information. Related standards include NGSS-DCI: HS-ETS1; MS-ETS1.

Student Discussion Worksheet — These questions are formatted so it's easy to print them out as a worksheet.

September 24, 2022

News Stories Give Spiders a Bum Rap

Article-based Comprehension, Q&A

Directions for teachers: Ask students to read and answer questions about the online *Science News* article "[News stories have caught spiders in a web of misinformation](#)," which describes new research looking at how spiders are portrayed by the media. A version of the article, "News stories give spiders a bum rap" appears in the September 24, 2022 issue of *Science News*.

1. In your own words, summarize the main finding presented in the article.

News stories about human-spider interactions tend to have a lot of errors and paint spiders as generally dangerous.

2. About how many species of spider are there in the world?

There are roughly 50,000 species known to science.

3. How many spiders can bite people? Give two examples.

Very, very few spiders can bite people. Two well-known examples are widow and recluse spiders.

4. How can news stories about spiders be unfair to the creatures?

Many news reports about spiders generally treat them as scary creatures that hurt people and those reports don't provide evidence to support that claim. The fact is that most spiders are harmless to people and actually help us by eating pests.

5. How many news stories did the researchers analyze, and where did the news stories come from?

Scientists looked at 5,000 online news stories from 81 countries.

6. Give an example of an error that was found in the news stories.

Some news stories about spider bites reported symptoms that don't match the symptoms of actual bites.

7. How many of the news stories were sensationalized? Based on the article, what do you think the term "sensationalized" means?

Forty-three percent of the news stories were sensationalized. To sensationalize something means to present it in a way that stirs a strong emotional reaction.

8. How did including spider experts in the news stories affect the level of sensationalism? What about other types of experts, like doctors?

Including spider experts decreased stories' sensationalism. Including other types of experts like doctors did not affect how sensational a news story was.

9. What effects might unfairly negative news stories have on people and spiders?

Unfairly negative news stories about spiders might make people afraid of them and even want to kill them.

10. How might news stories that are more accurate affect people and spiders?

News stories about spiders that are more accurate might make people less afraid of the creatures. It might also help to conserve spider species that are threatened or endangered.

September 24, 2022

News Stories Give Spiders a Bum Rap

Student Comprehension Worksheet

Directions: Read and answer questions about the online *Science News* article "[News stories have caught spiders in a web of misinformation](#)," which describes new research looking at how spiders are portrayed by the media. A version of the article, "News stories give spiders a bum rap" appears in the September 24, 2022 issue of *Science News*.

1. In your own words, summarize the main finding presented in the article.
2. About how many species of spider are there in the world?
3. How many spiders can bite people? Give two examples.
4. How can news stories about spiders be unfair to the creatures?
5. How many news stories did the researchers analyze, and where did the news stories come from?
6. Give an example of an error that was found in the news stories.
7. How many of the news stories were sensationalized? Based on the article, what do you think the term "sensationalized" means?
8. How did including spider experts in the news stories affect the level of sensationalism? What about other types of experts, like doctors?
9. What effects might unfairly negative news stories have on people and spiders?

10. How might news stories that are more accurate affect people and spiders?

Cross-curricular Discussion, Q&A

Directions for teachers:

Start this exercise with a class discussion using the first set of questions, "Spider sense." Then have students read the *Science News* article "[News stories have caught spiders in a web of misinformation](#)," and answer the remaining sets of questions with a partner. Wrap up the exercise by asking students to share their answers to the last question with the class. Note: Depending on your objectives with your class, as a short extension you could ask students to think about the sources of misinformation they see and how being exposed to it affects their daily choices.

Want to make it a virtual lesson? Post the online *Science News* article to your virtual classroom. Discuss the article and questions with your class on your virtual platform.

Spider sense

1. When you think about spiders, how do you feel? What do you do when you see a spider?

Student answers will vary. Many students are likely fearful of spiders and may react fitfully to the presence of a spider.

2. What have you heard about spiders? Think about stories your friends or family have told you, urban legends you've heard, things you've read, etc.

In many books and movies, spiders or spiderlike creatures are used to scare people or as villains. Students may also mention a few facts about spiders eating harmful insects, etc.

3. What facts do you know about spiders? When you see a spider, do you know information about the species of spider you see?

Student answers will vary.

4. Why do you feel and act the way you do around spiders? Is your reaction to a spider based on facts? How has the information gathered from others' perceptions of spiders affected your own feelings toward them?

Student answers will vary.

Know your info

1. What is information, and what is required for something to be considered information? What is misinformation?

Information is asserted facts or claims that are supported by logical reasoning using evidence or scientific data. Misinformation is falsehoods that are presented in such a way that people can think the information is true and based on facts. Misinformation is not supported by scientific data or evidence.

2. Where does misinformation come from? How can it be harmful?

Misinformation occurs when claims are based solely on opinion and/or bias rather than scientific facts and evidence. Misinformation is harmful because it is presented as factual and so could mislead people.

3. What does it mean to sensationalize something? How does sensationalizing relate to misinformation?

To sensationalize something is to present that thing in a way that exaggerates the facts and increases curiosity or interest. Sensationalizing is a way to create and spread misinformation.

4. Why might people pass along misinformation? What are some impacts of the spread of misinformation?

Some people may think that misinformation they read and share on social media or via e-mail is rooted in facts. This may be because the misinformation, which is presented as factual, confirms preexisting beliefs or biases they already have. In many cases, these people haven't verified the information's accuracy before sharing it. The spread of misinformation can result in beliefs or biases that are not based on facts becoming deeply entrenched within social groups.

Correcting misinformation

1. Look up a fact about spiders that you find interesting. Write two brief social media posts, one about the information you acquired and one that sensationalizes the information, creating misinformation.

Student answers will vary. As an example, a student might write the following posts.

Informational post: Proteins make up spider silk, which starts out as a watery gel and solidifies as it exits the spider's body.

Sensationalized misinformation post: Spider silk is made of gooey proteins that will stick to your skin and attract other spiders.

2. Which post do you think would spread more readily on a social media platform? Explain.

The sensationalized post would probably spread more than the informational post. It uses words and phrases that can make readers worried or fearful, which may make them want to warn others.

3. Is there a way to hook your reader with the information you found about spiders without creating misinformation? Rewrite your post to accomplish this.

Student answers will vary. Note that literary devices are a great way to hook readers without including overexaggerated or false information.

4. Have your feelings toward spiders changed? Why or why not? What will you do when you see a spider in the future?

Student answers will vary, but may mention researching a spider species found before moving it, etc.

5. When communicating about a topic, how can you avoid creating or spreading misinformation or sensationalizing information?

If you are preparing to share information with others, you should research the facts behind the information you are sharing. Does it come from a credible source? Are there scientific facts supporting the claim you are sharing, etc.? When writing a post, link to or mention the primary source if possible.

Student Discussion Worksheet

Directions: Read the online *Science News* article "[News stories have caught spiders in a web of misinformation](#)" and answer the questions as instructed by your teacher.

Spider sense

1. When you think about spiders, how do you feel? What do you do when you see a spider?
2. What have you heard about spiders? Think about stories your friends or family have told you, urban legends you've heard, things you've read, etc.
3. What facts do you know about spiders? When you see a spider, do you know information about the species of spider you see?
4. Why do you feel and act the way you do around spiders? Is your reaction to a spider based on facts? How has the information gathered from others' perceptions of spiders affected your own feelings toward them?

Know your info

1. What is information, and what is required for something to be considered information? What is misinformation?
2. Where does misinformation come from? How can it be harmful?
3. What does it mean to sensationalize something? How does sensationalizing relate to misinformation?
4. Why might people pass along misinformation? What are some impacts of the spread of misinformation?

Correcting misinformation

1. Look up a fact about spiders that you find interesting. Write two brief social media posts, one about the information you acquired and one that sensationalizes the information, creating misinformation.
2. Which post do you think would spread more readily on a social media platform? Explain.
3. Is there a way to hook your reader with the information you found about spiders without creating misinformation? Rewrite your post to accomplish this.
4. After reading the *Science News* article and answering these questions, have your feelings toward spiders changed? Why or why not? What will you do when you see a spider in the future?
5. When communicating about a topic, how can you avoid creating or spreading misinformation, or sensationalizing information?

