

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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*Finding a fossil is fun, and so is making one. Read the directions on how to do it and then answer the questions that follow.*

## **Activity: Make Your Own Fossil**

Finding a real fossil is terrific! Fossils are rocks that contain the imprint of bones, shells, or leaves that existed thousands—maybe even millions—of years ago. You may not find a real fossil very often—or ever. But you can make your own fossil. Here are directions for making your own fossil.

### **You will need:**

- 1 small bag of plaster of Paris (ask at a hardware store)
- Water
- 1 empty coffee can
- 1 old aluminum pie or cake pan
- Something to stir with (like a paint-stirring stick)
- Some small objects to press into your fossil (shells, leaves, stones, buttons, bottle caps, even your hand will do)
- A piece of picture-hanging wire (if you want to hang your fossil on the wall)
- A cup

### **How to do it:**

1. Spread newspapers on the floor or table where you are going to work. (This can get messy!)
2. Collect your "fossil objects."
3. Pour a cup of plaster of Paris into the coffee can.
4. Stir in enough water until it looks like thick pancake batter, following the directions on the box.
5. Pour the plaster of Paris mixture into the aluminum pan.
6. Place your fossil objects on the plaster and press down firmly.
7. If you want to hang your fossil on the wall when it's dry, twist a piece of wire into a loop and stick it into the top of the mold.
8. Wait 5 minutes, then carefully remove the objects.
9. Let the plaster dry, remove it from the pan, and **YOU HAVE MADE A FOSSIL!!**

If you can't get plaster of Paris, you can also make a fossil with clay.

1. When making a fossil, the coffee can is used to
  - A. wash the pie pan.
  - B. pour the water.
  - C. hold the fossil objects you collect.
  - D. mix the plaster of Paris.

2. Which would NOT be good to use to make a fossil?

- A. a chicken feather
  - B. dead leaf
  - C. a piece of paper
  - D. fish bones
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3. Someone might read this story to

- A. find a project for science class.
  - B. learn how to make plaster of Paris.
  - C. discover where to look for fossils.
  - D. find out how fossils form in nature.
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4. What should you do FIRST when you make your own fossil?

- A. pour the plaster of Paris mixture into the pan
  - B. put a loop of wire into the plaster of Paris
  - C. press objects into the plaster of Paris
  - D. spread newspapers on the floor
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5. What can you use in place of plaster of Paris to make a fossil?

- A. flour
  - B. glue
  - C. clay
  - D. sugar
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6. You must remove the "fossil objects" 5 minutes after you put them in place. If you do not do so, what will happen?

- A. They will not leave an imprint.
  - B. The plaster of Paris will not get hard.
  - C. They will get stuck in the hard plaster.
  - D. They will sink into the plaster.
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7. The writer gives step 4 to tell how

- A. thick the plaster of Paris must be.
  - B. long to stir the mixture.
  - C. much plaster of Paris to use.
  - D. to make pancake batter.
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Read the story to find out what scientists really did with a spider named Arabella and then answer the questions that follow.

## Arabella the Spider

Arabella was a spider with a special talent. She could build the best spiderwebs at Marshall Space Flight Center. Her skill at constructing webs landed her a job as the first spider to go up in space.

Scientists knew that Arabella would have problems building webs during the space flight. There is no gravity out in space. Everything is weightless and will float if not attached to something stable. Scientists wanted to see if Arabella could adapt to weightlessness.

Arabella didn't know that she was weightless in space, but when she took her first step, she knew that something was wrong. Her eight legs seemed useless as she slid across the wall of her cage.

Nevertheless, Arabella quickly learned to move in her cage. On Earth, Arabella would spin a long, sticky thread and let the wind attach it to a plant. But there was no wind in the spaceship; so she had to carry the thread from corner to corner and attach it to the frame by herself.

Arabella tried to find a new way to conquer each problem. Her first webs in space were not very neat, but after three days she was able to build a web as perfect as the ones she had made on Earth. However, there were no insects to get caught in her web; so the astronauts fed her bits of steak instead. In this way they helped her overcome her only unsolved problem.

8. What did scientists learn about spiders during this experiment with Arabella?

- A. Spiders can trap their own food in space.
  - B. Spiders make better webs in space than they do on Earth.
  - C. Spiders can get used to making webs while in space.
  - D. Spiders float when they are weightless.
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9. Why was Arabella chosen to go up in space?

- A. She could live in a cage.
  - B. She could build the best spiderwebs.
  - C. She could float in space.
  - D. She could trap other insects.
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10. How long did it take Arabella to spin a perfect web in space?

- A. three minutes
- B. three hours
- C. three days
- D. three weeks

**Answer Key**

1. D) mix the plaster of Paris.
2. C) a piece of paper
3. A) find a project for science class.
4. D) spread newspapers on the floor
5. C) clay
6. C) They will get stuck in the hard plaster.
7. A) thick the plaster of Paris must be.
8. C) Spiders can get used to making webs while in space.
9. B) She could build the best spiderwebs.
10. C) three days