

# Matter Changes Nearby

Read closely to identify changes that make materials different.

**SC.4.P.9.1** "Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## 1 READ AND MARK \_\_\_\_\_ Read it twice

**YOUR JOB** Underline these exact words: *decay*, *Cooking*, *burns*, and *rust*. Write 1, 2, 3, and 4 beside them in that order to find four changes that make materials different.

### Materials Can Change

- ① Materials can change in ways that make new materials. In the school garden, fallen leaves may decay after rain and warm weather. Tiny living things help break the leaves into dark, crumbly material called compost. Compost feels different from dry leaves and can be mixed into soil. This change happens slowly, often over many weeks or months.
- ② At breakfast, a cook heats a raw egg white in a pan. Before heating, the egg white is clear and runny. Cooking changes it into a white, firm solid that does not flow. The cooked egg white has different characteristics from the raw egg white. Heating food can cause changes that are difficult to reverse.
- ③ Other changes can happen outdoors. When a dry wooden stick burns, it can make gray ash, smoke, and gases. Ash is powdery and gray, while the stick was hard and brown. Iron can rust when water and oxygen reach its surface. A reddish-brown, rough coating forms on the iron. Burning and rusting make materials with characteristics different from the starting materials.

**2 ANSWER WITH EVIDENCE** \_\_\_\_\_ Use the passage

**1** What did the fallen leaves become as they decayed? Give two words that describe the new material.

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**2** How did cooking change the raw egg white? Include what it was like before and after heating.

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**3** Name two materials that a burning wooden stick can make. Then describe the ash.

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**4** What two things must reach iron for rusting to happen? What is the rust coating like?

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**3 YOUR TURN** \_\_\_\_\_ Your own words

Think of a familiar material changing in a way not described in the reading. Write three sentences that name the starting material, tell what caused the change, and describe at least two characteristics of the new material.

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**PART 1 • READ AND MARK**

Underline these exact words: *decay*, *Cooking*, *burns*, and *rust*. Write 1, 2, 3, and 4 beside them in that order to find four changes that make materials different. Accept any marking that follows this job and points at the right text.

**PART 2 • ANSWERS**

| # | QUESTION                                                                                          | ANSWER                                                                                                           |
|---|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1 | What did the fallen leaves become as they decayed? Give two words that describe the new material. | <b>They became compost. It was dark and crumbly.</b>                                                             |
| 2 | How did cooking change the raw egg white? Include what it was like before and after heating.      | <b>Before heating, it was clear and runny. After cooking, it was white, firm, and solid, so it did not flow.</b> |
| 3 | Name two materials that a burning wooden stick can make. Then describe the ash.                   | <b>A burning stick can make ash, smoke, and gases. The ash is gray and powdery.</b>                              |
| 4 | What two things must reach iron for rusting to happen? What is the rust coating like?             | <b>Water and oxygen must reach the iron. The coating is reddish-brown and rough.</b>                             |

**PART 3 • YOUR TURN (SAMPLE ANSWER)**

I watched bread toast in a toaster. Heat changed the soft, pale bread into toast. The toast was brown, dry, and crisp, so it had different characteristics from the bread.

Accept accurate examples of familiar changes that produce materials with different characteristics, such as baking batter into cake. For Your Turn, responses should name a starting material, a cause of change, and at least two characteristics of the changed material.