Wyoming

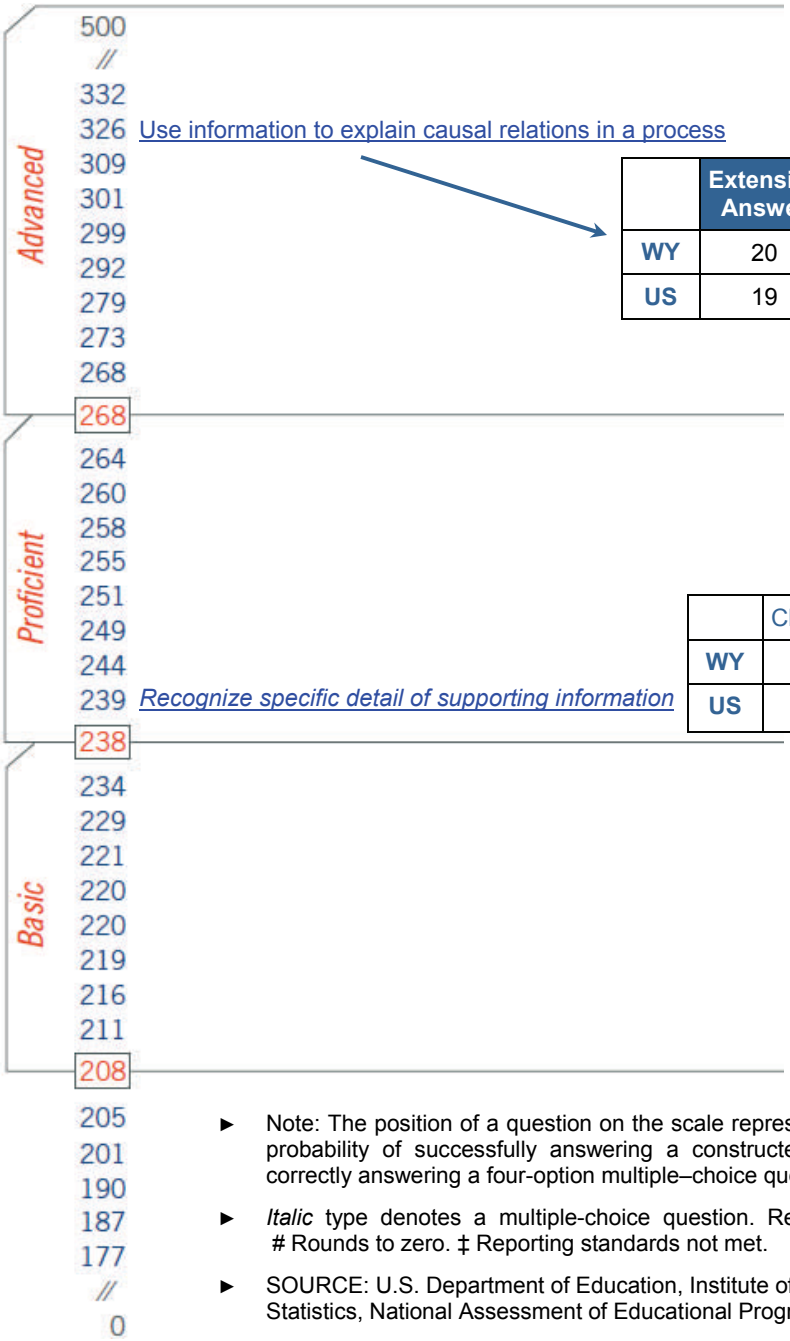
Reading 2009

Grade 4 Report

Item Map and Performance Snapshot

The National Assessment of Educational Progress (NAEP) uses both multiple choice and constructed-response test items to assess fourth graders' skills in two reading areas: Literary Texts and Informational Texts. Scale scores range from 0 to 500, wherein a 208 denotes NAEP's *Basic* achievement benchmark (i.e., approximately a "grade level" performance); 238 reflects *Proficient* results or competency on challenging material, and 268 is considered to be *Advanced*.

Wyoming and the Nation — Performance on Test Items



	Extensive Answer	Essential	Partial	Incorrect	Omitted	Off-Task
WY	20	35	24	16	4	#
US	19	39	24	17	2	#

	Choice A	Choice B	Choice C	Choice D	Omitted
WY	8	21	64	6	1
US	11	19	62	7	#

- Note: The position of a question on the scale represents the scale score by students who had a 65 percent probability of successfully answering a constructed response question, or a 74 percent probability of correctly answering a four-option multiple–choice question.
- *Italic* type denotes a multiple-choice question. Regular type denotes a constructed-response question. # Rounds to zero. ‡ Reporting standards not met.
- SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Reading Assessment.

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The Nation's Report Card NAEP WYOMING

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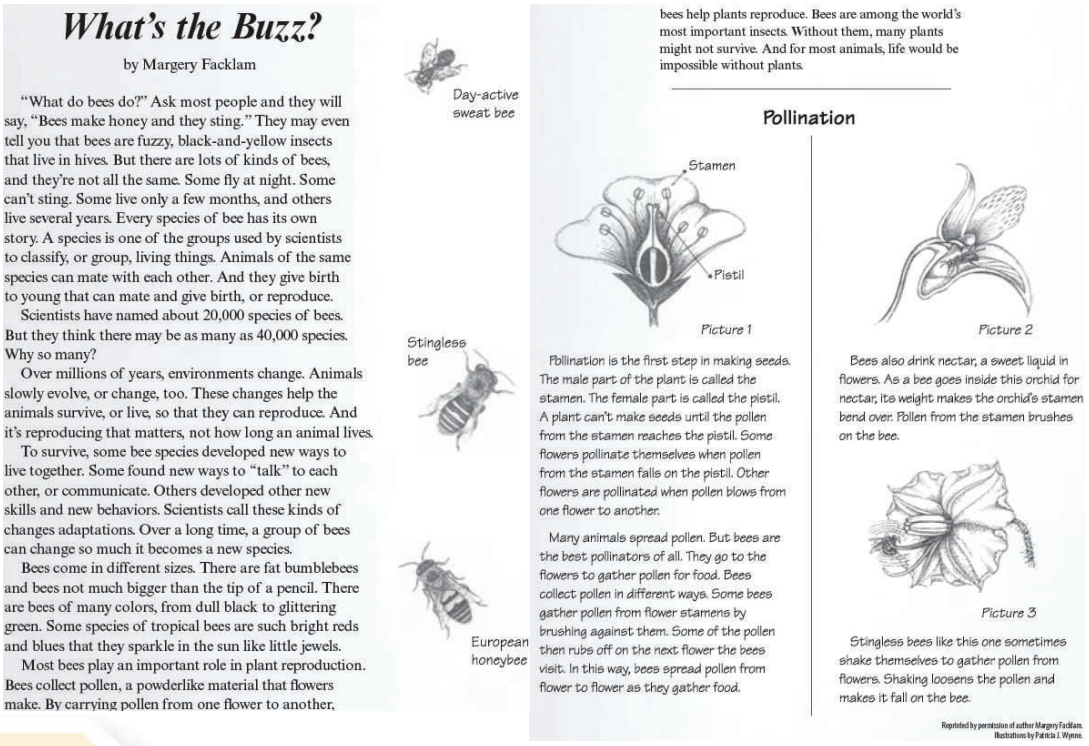
Use Information to explain causal relations in a process

This test item measures fourth-graders' performance in integrating and interpreting the information they have read about bees and pollination.



What's the Buzz?

by Margery Facklam

"What do bees do?" Ask most people and they will say, "Bees make honey and they sting." They may even tell you that bees are fuzzy, black-and-yellow insects that live in hives. But there are lots of kinds of bees, and they're not all the same. Some fly at night. Some can't sting. Some live only a few months, and others live several years. Every species of bee has its own story. A species is one of the groups used by scientists to classify, or group, living things. Animals of the same species can mate with each other. And they give birth to young that can mate and give birth, or reproduce.

Scientists have named about 20,000 species of bees. But they think there may be as many as 40,000 species. Why so many?

Over millions of years, environments change. Animals slowly evolve, or change, too. These changes help the animals survive, or live, so that they can reproduce. And it's reproducing that matters, not how long an animal lives.

To survive, some bee species developed new ways to live together. Some found new ways to "talk" to each other, or communicate. Others developed other new skills and new behaviors. Scientists call these kinds of changes adaptations. Over a long time, a group of bees can change so much it becomes a new species.

Bees come in different sizes. There are fat bumblebees and bees not much bigger than the tip of a pencil. There are bees of many colors, from dull black to glittering green. Some species of tropical bees are such bright reds and blues that they sparkle in the sun like little jewels.

Most bees play an important role in plant reproduction. Bees collect pollen, a powderlike material that flowers make. By carrying pollen from one flower to another, bees help plants reproduce. Bees are among the world's most important insects. Without them, many plants might not survive. And for most animals, life would be impossible without plants.

Day-active sweat bee

Stingless bee

European honeybee

Pollination

Stamen

Pistil

Picture 1

Pollination is the first step in making seeds. The male part of the plant is called the stamen. The female part is called the pistil. A plant can't make seeds until the pollen from the stamen reaches the pistil. Some flowers pollinate themselves when pollen from the stamen falls on the pistil. Other flowers are pollinated when pollen blows from one flower to another.

Many animals spread pollen. But bees are the best pollinators of all. They go to the flowers to gather pollen for food. Bees collect pollen in different ways. Some bees gather pollen from flower stamens by brushing against them. Some of the pollen then rubs off on the next flower the bees visit. In this way, bees spread pollen from flower to flower as they gather food.

Picture 2

Bees also drink nectar, a sweet liquid in flowers. As a bee goes inside this orchid for nectar, its weight makes the orchid's stamen bend over. Pollen from the stamen brushes on the bee.

Picture 3

Stingless bees like this one sometimes shake themselves to gather pollen from flowers. Shaking loosens the pollen and makes it fall on the bee.

Reprinted by permission of author Margery Facklam. Illustrations by Patricia J. Wynne.

SAMPLE QUESTION:

Explain why bees are important to both plants and animals. Use information from the article to support your answer.

Extensive response:

Bees are important to plants because they pollinate flowers to make more grow. If ten more flowers or plants grow the plant eating animals have stuff to eat.

Essential response:

bees are important to plants cause they help them grow by spreading the pollin around the plants so they can grow.

Use Information to explain causal relations in a process: Scoring guide	
Extensive	Provides a text-based explanation of why bees are important to **both** plants and animals.
Essential	Provides a text-based explanation of why bees are important to **either** plants and animals.
Partial	Provided relevant information from the article without using it to explain why bees are important to plants or animals

Student responses to this question were rated using four scoring levels—Extensive, Essential, Partial, and Unsatisfactory/ Incorrect.

Scoring criteria for Extensive, Essential, and Partial responses are shown to the left.

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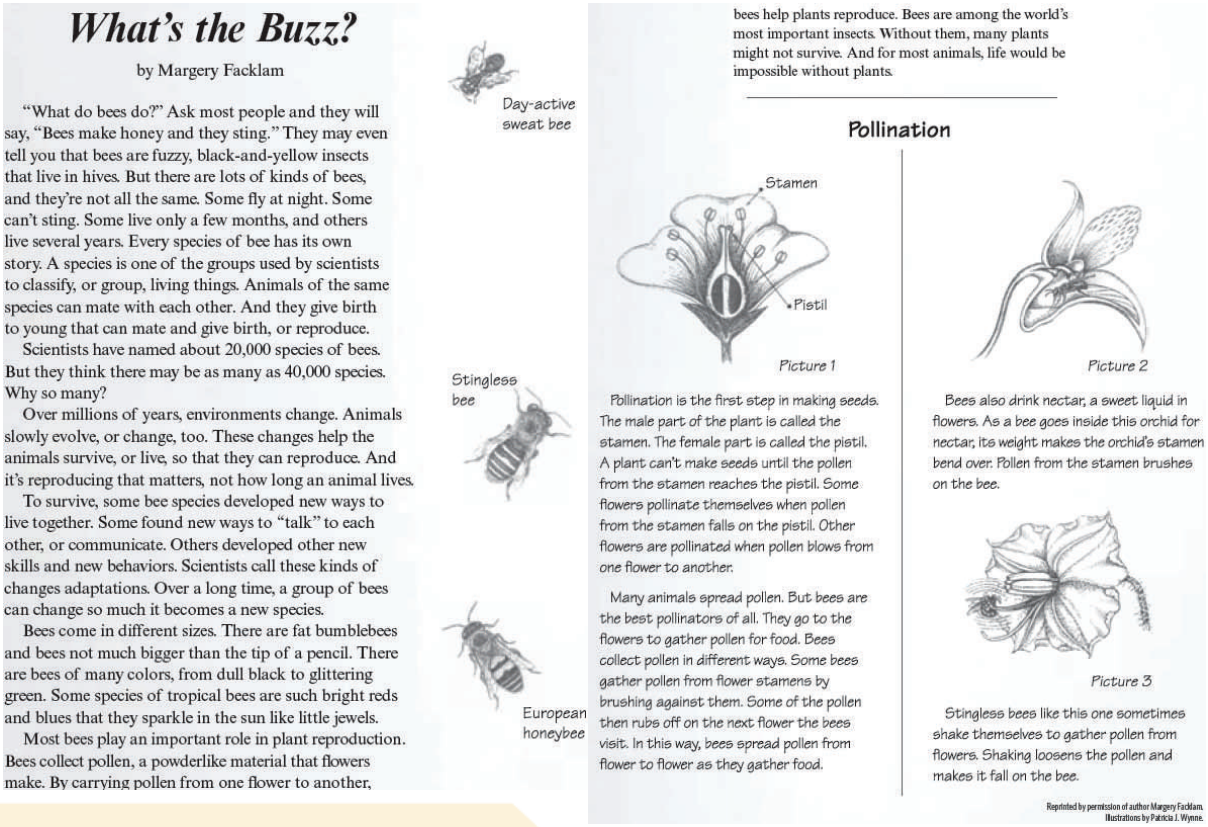
Design an investigation to determine the volume of a container

This test item measures fourth-graders' performance in recognizing a specific detail from the article that supports the discussion of bees.



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SAMPLE QUESTION:

According to the article, what can animals of the same species do?

Ⓐ Travel in groups over long distances
Ⓑ Live together in homes such as hives
Ⓒ Mate with each other and give birth
Ⓓ Find food for their young

	Choice A	Choice B	**Choice C**	Choice D	Omitted
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