

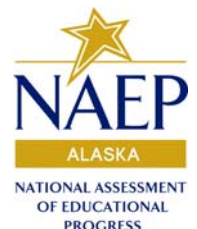
# NAEP Assessment Toolbox for Teachers



## Easy-to-Use Classroom Activities Using Questions and Data from the National Assessment of Educational Progress

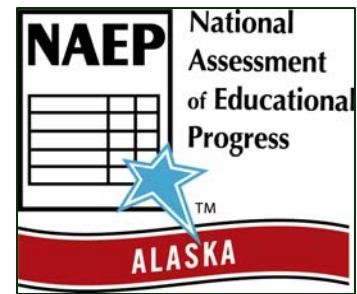


Created by Jeanne Foy, NAEP Coordinator for Alaska  
July 2007





# NAEP Assessment Toolbox for Teachers: Easy-to-Use Classroom Activities Using Questions and Data from the National Assessment of Educational Progress



This publication will give examples of how classroom teachers can use released NAEP questions in the following ways:

- Improve Students’ Abilities for Self-Assessment
- Teach Reasoning Skills/Strategies
- Analyze Mathematical Misconceptions
- Teach Test-Taking Strategies and Use State Performance Data and NAEP Questions to Focus Instruction
- Use as a Springboard for Classroom Activities

## **NAEP: A Model of Good Assessment**

The National Assessment of Educational Progress (NAEP) is widely recognized as a model of good assessment and is often called the “gold standard” of assessment. NAEP gives assessments in reading, math, writing, science, history, and civics in grades 4, 8, and 12 to students throughout the nation. After each of these assessments, NAEP releases some of the questions; this publication contains ideas and activities for using the released questions in the classroom.

NAEP questions have gone through a rigorous item-development process. They have been field tested and met the requirements for a good test item. Each NAEP question identifies the learning target or standard being assessed. Performance data for each question, including state-level data when available, is given, as well as scoring guides and actual student responses for constructed-response questions.

## **NAEP Questions Aligned to Alaska Grade Level Expectations**

Reading and math questions for grades 4 and 8 aligned with Alaska Grade Level Expectations can be found at [http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html). Alaska student performance data for each question is also given. All released NAEP questions can be found at <http://nces.ed.gov/nationsreportcard/itmrls/>.

“ . . . to many educators and policymakers, NAEP represents the gold standard in testing for its ability to assess both content and critical thinking.”  
— Patte Barth, Director of the Center for Public Education

### **Illustrating Grade Level Expectations**

All NAEP reading and math questions used in this publication have been aligned to Alaska's Grade Level Expectations (GLEs). Each worksheet identifies which GLE the question assesses. Students are asked to begin the worksheets by explaining the GLEs in their own words. In *Classroom Assessment for Student Learning*, the authors stress the importance of beginning all lessons with clearly defined learning targets or GLEs and making sure students understand the learning target:

Explaining the intended learning in student-friendly terms at the outset of a lesson is the crucial first step in helping students know where they are going. (Stiggins, Arter, Chappius, Chappius, 2006, p. 58)

Students can restate the GLEs on their own or it can be done as a classroom activity.

### **Classroom Activities, Not Graded Assignments**

The worksheets in the NAEP Assessment Toolbox for Teachers are designed to be classroom learning activities, not individual worksheets to be graded. The worksheets provide opportunities for students to become involved in their own learning and for teachers to offer descriptive feedback about the learning process.

### **A Word of Caution**

The Council of Chief State School Officers issue paper, "Creating Aligned Standards and Assessment Systems," states that valid, quality test items can be used "to support instructional and test preparation activities at the school and classroom level." In addition, "schools may also use these items for diagnostic/predictive purposes and to make students aware of what they will experience when confronted with the state's statewide accountability assessment" (Rabinowitz, S., Roeber, E., Schroeder, C., & Sheinker, J., with CAS SCASS study group, 2006, p. 21).

However, states must be careful not to encourage or support the use of sample items as a replacement for actually teaching the content. Too many schools overuse test preparation activities to the detriment of more appropriate and effective instructional activities.

Stiggins et al. point out that ethical test preparation practices do not include "providing students with extended practice on old or parallel forms of the test without guided practice on how to improve" (2006, p. 413).

## Explanation of NAEP Data

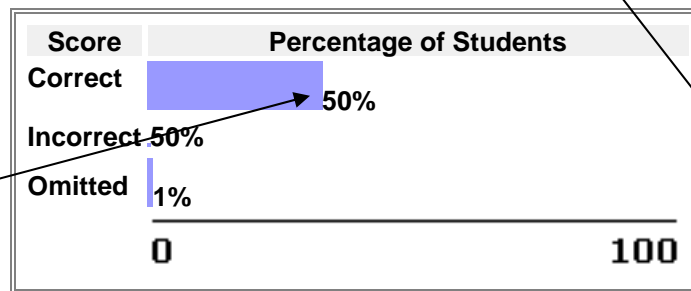
The question below is from a grade 8 reading passage. It is shown with an explanation of the NAEP data on how students performed on this question.

NOTE: The NAEP questions in this booklet are numbered according to how they were originally numbered for posting on [http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html).

5. What did Shannon Lucid miss while in space?

- A) Eating her favorite snacks
- B) Riding a stationary bicycle
- C) Talking to her family
- D) Feeling the sun and the wind

### 2005 National Performance Results



The first table gives a quick overview of student performance. Nationally, 50% of students got this question correct.

The heading shows this question was part of the 2005 NAEP administration.

Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Specific Alaska data is given at the bottom of the table.

Alaska Students: 50% Correct

	A	B	C	D *	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	14	6	29	50	1	3

For multiple-choice questions, a second table shows how many students chose each possible response. For example, 14% of students chose A and 6% chose B. The correct answer (D) is marked with an asterisk. Omitted or missing is the percentage of students who did not answer the question. This is national performance data.



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## **Helping Students Improve Their Ability to Self-Assess: Students Who Recognize Qualities of Good Work Can Learn to Revise Their Own Work**

Teaching students to be able to assess the quality of work is key for students to learn how to revise their own work. Chappius (2005) suggests using examples of strong and weak work so that students know what excellent performance looks like.

### **Using NAEP Constructed-Response Questions and Scoring Guides**

#### **To Identify Acceptable and Unacceptable Responses to Questions on a Reading Passage**

The following worksheets on “Watch Out for Wombats,” from a grade 4 NAEP reading assessment, and on “Ellis Island,” from a grade 8 NAEP reading assessment, show how NAEP student samples of work and NAEP scoring guides can be used to help students identify acceptable and unacceptable answers to reading questions.

### **Suggested Procedures for Using Materials in This Section**

- At the top of each worksheet is the reading question followed by the Alaska Grade Level Expectation that the question assesses. After reading the question, make sure students understand the learning target (Grade Level Expectation) in student-friendly language. For example, GLE 2.5.2: Locating information in narrative and informational text to answer questions related to main ideas or key details could be restated as “find information or details to answer questions about the main ideas.”
- Ask students to evaluate the examples of student responses using information in the scoring guide; the scoring guide is found beneath the reading question. After students complete the worksheet, discuss the Scorer’s Commentary, which is printed at the end of the each worksheet, with students. Students may be interested in the national and Alaska student performance information given after the Scorer’s Commentary.
- Students may notice on their own or teachers may wish to point out, that for the reading tests, correct grammar is not part of the scoring guides. This is also true of the Alaska Standards Based Assessments.

### **Variation**

Show only the unacceptable responses. Ask students to revise the responses to make them acceptable.

NAEP writing questions, which can be found at <http://nces.ed.gov/nationsreportcard/itmrls/>, lend themselves very well to this type of activity. Scoring rubrics and samples of student writing for each category of the scoring rubric are given for each writing prompt. Examples of NAEP writing prompts and student writing samples are in the last section of this publication, Springboard for Classroom Activities.

### **Arrangement of Contents in This Section**

“Watch Out for Wombats” Grade 4 Table of Constructed-Response Questions

“Watch Out for Wombats” Grade 4 Reading Passage

Worksheets for Questions Included in the “Watch Out for Wombats” Table

“Ellis Island” Table of Constructed-Responses Questions

“Ellis Island” Grade 8 Reading Passage

Worksheets for Questions Included in the “Ellis Island” Table

### **Further Suggestions to Teach Students to Self-Assess Work**


Chappius (2005) recommends the following steps for using strong and weak work:

1. Distribute to students a student-friendly version of the scoring guide you will use to evaluate their final products.
2. Choose one aspect of quality (one trait) to focus on.
3. Show an overhead transparency of a strong anonymous sample, but don't let students know it's a strong example. Have students work independently to score it for the one trait using the student-friendly scoring guide. You may ask students to underline the statements in the scoring guide that they believe describe the work they're examining.
4. After students have settled on a score independently, have them share their scores in small groups, using the language of the scoring guide to explain their reasoning.
5. Ask the class to vote and tally their scores on an overhead transparency. Then ask for volunteers to share their scores and the rationale behind them. Listen for, and encourage, use of the language of the scoring guide.
6. Repeat this process with a weak anonymous sample, focusing on the same trait. Do this several times, alternating between strong and weak papers, until students are able to distinguish between strong and weak work and independently give rationales reflecting the concepts in the scoring guide.

“Watch Out for Wombats” questions, except Question 11, have two-part scoring guides, acceptable and unacceptable.

The questions on the worksheets are arranged in order from easiest to most difficult. The question numbers are not in sequence because they are posted on the Alaska NAEP web page in a different order. All questions for this reading passage can be found at [http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html).

**Challenge:** Question 11 has a three-part scoring guide that is more complex than the scoring guides for the other questions. Question 11 can be used if teachers want to use a more challenging or difficult question with students. Question 11 can also be used to illustrate how a response can receive partial credit. The student responses show attempting an answer can result in getting some points as opposed to leaving a question blank.

<h2 style="margin: 0;">Grade 4</h2> <h1 style="margin: 0;">NAEP Reading Questions: “Watch Out for Wombats”</h1>	
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Alaska Grade Level Expectation Question Aligns To	Description of NAEP Question	Multiple-Choice or Constructed Response	Percent Correct Or Full Comprehension by Alaska Students	Question Number and Page Number
2.5.2 Locating information in narrative and informational text to answer questions related to main ideas or key details	Why Australia set up reserve	CR	69%	<a href="#">Q 10</a> , P. 19
2.5.2	Describe sleeping area	CR	67%	<a href="#">Q 7</a> , P. 14
2.5.2	Describe marsupials	CR	51%	<a href="#">Q 4</a> , P. 9
2.8.1 Identifying or describing in fiction plot (e.g., main conflict or problem, sequence of events); settings (e.g., how it affects the characters or plot); characters (e.g., physical characteristics, personality traits, motivation)	Describe similar/different-koalas/wombats	CR	47%	<a href="#">Q 3</a> , P. 5
2.2.4 Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)	Reasons not to have wombats as pets	CR	10%	<a href="#">Q 11</a> , P. 22



## WATCH OUT FOR WOMBATS!

by Caroline Arnold

As we rode along the highway sixty miles northeast of Adelaide, Australia, a diamond-shaped sign suddenly loomed ahead. Watch Out for Wombats, it warned. We peered into the sparse scrub along the roadside and searched for the brown furry animals. In the distance we spotted a mob of red kangaroos bouncing out of sight, and near the road a crowlike bird called a currawong was perched, but nowhere did we see any wombats. However, we later found out that this was not surprising because we were traveling during midday, and wombats are active mostly at night. It wasn't until we visited the animal reserve that we finally saw our first wombat and learned more about this funny-looking creature.

We found that there are two types of wombats in Australia: the hairy-nosed wombat, which lives in Queensland and South Australia, and the coarse-haired wombat, which lives along the southeast coast. Both have soft brown fur, short ears, and thick-set bodies. They are said to resemble North American badgers. The hairy-nosed wombat is smaller and has pointier ears compared to its coarse-haired cousin; otherwise they are very much alike.

In many ways the wombat is similar to another Australian native, the koala. Like koalas, wombats have strong forelimbs and powerful claws. But instead of using its claws to cling to high tree branches as the koala does, the wombat digs large underground burrows. These burrows are usually nine to fifteen feet across, but they can be enormous--sometimes as long as ninety feet. One end of the burrow is used as a sleeping area--there the wombat builds a nest made of bark.

The wombat is a vegetarian, so it also uses its mighty claws to tear up grasses and roots for its food. A mother wombat will pull out single stems of grass and lay them on the ground so her young wombat can eat the tender bases. The wombat's teeth, which grow throughout its life, are sharp and ideal for cutting and tearing.

When a mother wombat gives birth, she never has to worry about finding a baby-sitter--she simply carries her baby along with her. Like most mammals in Australia, wombats are marsupials. A baby wombat is born at a very early stage of development and lives in its mother's pouch until it is old enough to survive on its own.

Wombats have only one baby at a time, usually during the Australian winter months, May to July. A baby wombat is called a joey. At birth the tiny joey--barely an inch long--uses its forelimbs to pull itself along its mother's underside to get into her pouch, where it will be kept warm, protected, and fed.

Marsupials, like all mammals, are nourished by their mothers' milk. The nipples that supply the milk are inside the pouch. Once inside, the wombat joey finds a nipple and grabs it. The nipple then swells up in the baby's mouth, providing a firm hold and a steady supply of food. The joey stays in its mother's pouch for the next four months and grows rapidly.

Most marsupials have pouches which open upward when the animal is standing. However, both koalas and wombats have pouches which face downwards. A strong muscle keeps the pouch tightly closed and prevents the young wombat or koala from falling out. An advantage of the downward-opening pouch for wombats is that dirt is less likely to get inside when the wombat is burrowing.

The wombat is a shy and gentle animal. But even if you lived in Australia and were willing to keep watch during the nighttime hours, it would be difficult to get to know one. As more and more people move into territories in which wombats live, they destroy the wombat's burrows and food supplies. In some areas where the wombat was once plentiful, it is now almost extinct. Animal reserves have been set up recently to protect the wombat. Perhaps with a little help these friendly creatures will again prosper and multiply. The next time we drive through Australia, we really may have to Watch Out for Wombats!

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## Identifying Acceptable and Unacceptable Responses To Questions over “Watch Out for Wombats”

**Question Ten:** Why has Australia set up animal reserves to protect the wombat?

**GLE: 2.5.2** Locating information in narrative and informational text to answer questions related to main ideas or key details

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses explain why Australia set up animal reserves to protect the wombat.

Unacceptable responses do not use text information to indicate why Australia set up animal reserves to protect the wombat.

1. Why has Australia set up animal reserves to protect the wombat?

because to help them survive.  
And they think maybe one day  
they will multiply again one day.

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Is the response above acceptable or unacceptable? Why?

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2. Why has Australia set up animal reserves to protect the wombat?

The Australia set up animal  
reserves to protect the  
wombats because the  
wombats are exciting.

Is the response above acceptable or unacceptable? Why?

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3. Why has Australia set up animal reserves to protect the wombat?

They do that because they  
what to see what they  
can do

Is the response above acceptable or unacceptable? Why?

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4. Why has Australia set up animal reserves to protect the wombat?

Because people keep moving  
into there habitat;

Is the response above acceptable or unacceptable? Why?

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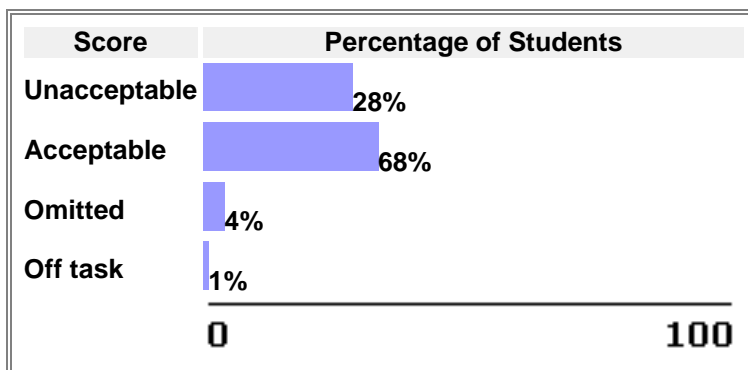
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**Scorer’s Commentary on Acceptable Responses:** Responses one and four include information from the passage to explain why Australia has set up animal reserves to protect the wombat. The first response explains that the reserves will help the wombat to survive and may promote growth of the wombat population. The fourth response explains the need for the reserves with information about how people are moving into the wombat's territory.

**Scorer’s Commentary on Unacceptable Responses:** Responses two and three use unsupported opinions, rather than information presented in the passage, to explain why Australia set up animal reserves to protect the wombat.

**Question Ten Performance Results:** Wombats: Why Australia set up reserve

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 69% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Watch Out for Wombats”

**Question Seven:** Describe the sleeping area of wombats.

**GLE: 2.5.2** Locating information in narrative and informational text to answer questions related to main ideas or key details

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable response state that the sleeping area of wombats is found in one end of the burrow and/or is a nest made of bark.

Unacceptable responses may provide vague descriptions, such as "They sleep in very big places." Or, responses at this level provide information that is not text-based, such as "Wombats sleep in tree trunks."

1. Describe the sleeping area of wombats.

On one side of the burrow is  
the sleeping area which is made  
of bark.

Is the response above acceptable or unacceptable? Why?

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2. Describe the sleeping area of wombats.

Its sleeps in its mothers  
pouch.

Is the response above acceptable or unacceptable? Why?

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3. Describe the sleeping area of wombats.

It is underground. It is  
muddy.

Is the response above acceptable or unacceptable? Why?

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4. Describe the sleeping area of wombats.

They sleep in trees  
or tree trunks.

Is the response above acceptable or unacceptable? Why?

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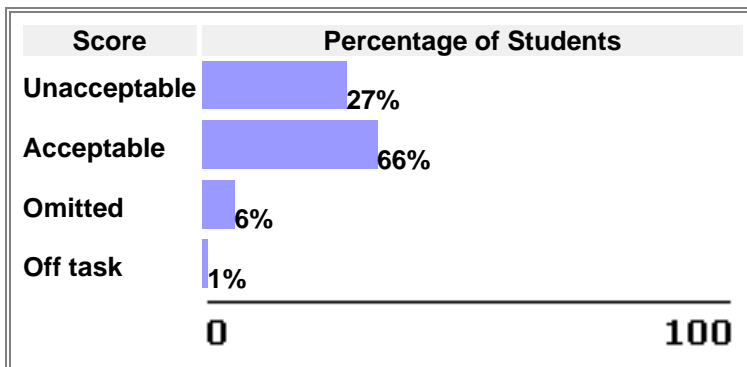
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**Scorer's Commentary on Acceptable Responses:** Responses one and three refer to features of the sleeping area of wombats mentioned in the passage. The first response mentions both the location in a burrow and that it is made of bark, while the third refers generally to the fact that it is underground.

**Scorer's Commentary on Unacceptable Responses:** Responses two and four refer to details from the passage that are not related to the sleeping area of wombats.

**Question Seven Performance Results:** Wombats: Describe sleeping area

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 67% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Watch Out for Wombats”

**Question Four:** Use the information in this passage to describe marsupials.

**GLE: 2.5.2** Locating information in narrative and informational text to answer questions related to main ideas or key details

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses use information from the passage to state that marsupials live in their mother's pouch when they are young, or are nourished by their mother's milk or drink milk when they are young.

Unacceptable responses may provide facts from the article specific to only wombats, but do not provide text-based details related to marsupials in general.

1. Use the information in this passage to describe marsupials.

*Marsupials are all like mammals are they look like mammals and they do things like mammals they are different to men*

Is the response above acceptable or unacceptable? Why?

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2. Use the information in this passage to describe marsupials.

*Most marsupials have pouches which open upward when the animal is standing.*

Is the response above acceptable or unacceptable? Why?

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3. Use the information in this passage to describe marsupials.

They live in burrows in Australia

Is the response above acceptable or unacceptable? Why?

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4. Use the information in this passage to describe marsupials.

Marsupials like all mammals are nourished  
by their mothers milk

Is the response above acceptable or unacceptable? Why?

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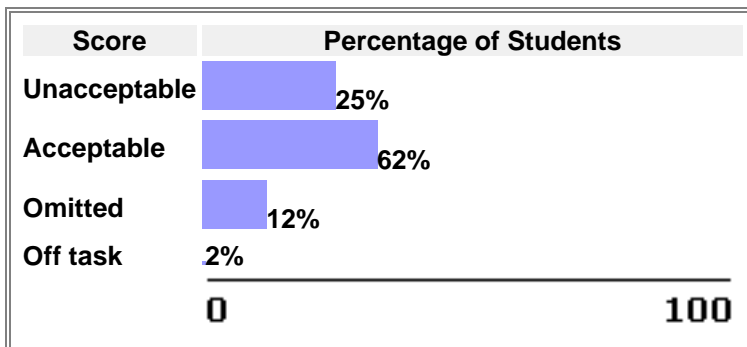
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**Scorer's Commentary on Acceptable Responses:** Responses two and four provide characteristics of marsupials that are mentioned in the passage.

**Scorer's Commentary on Unacceptable Responses:** Neither response one nor three provides the characteristics of marsupials. The first response compares marsupials to mammals but does not go on to provide specific characteristics of marsupials. The third response describes where wombats live.

**Question Four Performance Results: Wombats: Describe marsupials**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 51% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Watch Out for Wombats”

**Question Three:** Describe one way in which wombats and koalas are similar and one way in which they are different.

**GLE: 2.8.1** Identifying or describing in fiction plot (e.g., main conflict or problem, sequence of events); settings (e.g., how it affects the characters or plot); characters (e.g., physical characteristics, personality traits, motivation)\*

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses provide both an acceptable similarity and an acceptable difference between wombats and koalas. Accept any of the following as a similarity: they both live in Australia; they both have strong forelimbs; they both have powerful claws; their pouches face downward; they both have fur; they are both marsupials; they both live in green places. Accept any of the following as a difference: one lives in trees and the other lives in a burrow; the koala uses its claws to cling to trees, unlike the wombat; wombats are brown, koalas are gray.

Unacceptable responses do not provide both an acceptable similarity and difference between wombats and koalas. Responses at this level may provide an acceptable similarity or difference, but not both. Unacceptable similarities: they look the same; they are both animals; they both eat. Unacceptable differences: they live in different places; their claws are different; wombats have pouches and koalas don't.

1. Describe one way in which wombats and koalas are similar and one way in which they are different.

Similar They both have strong  
forelimbs and powerful claws

Different The koala climbs trees.  
and wombats dig holes.

Is the response above acceptable or unacceptable? Why?

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\*This GLE does not exactly match the question because “Watch Out for Wombats” is nonfiction instead of fiction, although identifying differences and similarities between characters is a key part of this GLE.

2. Describe one way in which wombats and koalas are similar and one way in which they are different.

Similar They both have pouches

Different The koala uses its claws to climb.  
The wombat uses its claws to burrow

Is the response above acceptable or unacceptable? Why?

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3. Describe one way in which wombats and koalas are similar and one way in which they are different.

Similar The Wombats and Koalas are the same because  
a wombat and a Koalas both have pouches.

Different \_\_\_\_\_  
\_\_\_\_\_

Is the response above acceptable or unacceptable? Why?

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4. Describe one way in which wombats and koalas are similar and one way in which they are different.

Similar They are similar because  
they ar the same animal.

Different One is big and one  
is small.

Is the response above acceptable or unacceptable? Why?

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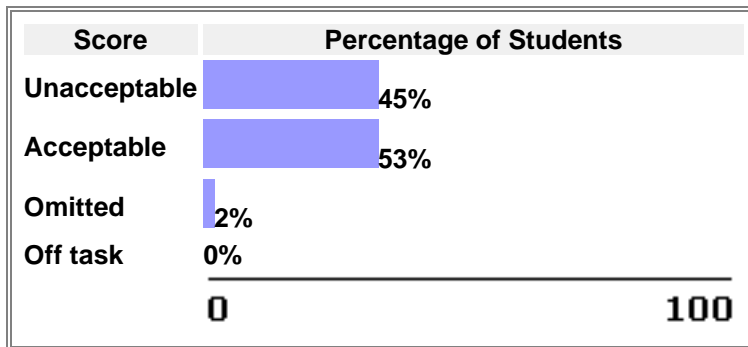
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**Scorer’s Commentary on Acceptable Responses:** Both responses one and two use specific information from the article to describe one similarity and one difference between wombats and koalas.

**Scorer’s Commentary on Unacceptable Responses:** Neither response three nor four uses specific information from the article to describe both a similarity and a difference between wombats and koalas. The third response describes only a similarity, while the fourth response provides inaccurate descriptions of both a similarity ("they are the same animal") and a difference ("one is big and one is small").

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 47% Acceptable



## **Identifying Acceptable and Unacceptable Responses To Questions over “Watch Out for Wombats”**

The Scoring Guide for this question can be used to show students that even though they may not get full credit for a response (Extensive), they can still get Essential or Partial for attempting an answer.

**Question Eleven:** Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

**GLE: 2.2.4** Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)

What is the learning target? What is another way of restating the Grade Level Expectation?

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### **Scoring Guide**

#### **Score & Description**

##### **Extensive**

These responses demonstrate an in depth understanding of the characteristics of wombats that make them unsuitable as pets by providing at least two characteristics discussed in the passage, and discussing at least one negative outcome OR 2 negative outcomes and 1 characteristic. For example:

1. "Wombats have sharp claws that could be dangerous if they were being handled as a pet. Additionally they are nocturnal animals which means that while we were trying to sleep, they would be running around the house -- probably destroying it with their sharp claws."
2. "Wombats have sharp claws that would scratch your furniture and ruin your house. They might get sick being kept inside and eating different food."

##### **Essential**

These responses demonstrate an understanding of the characteristics of wombats that would make them unsuitable as pets by providing at least two characteristics discussed in the passage, or discussing two negative outcomes of having a wombat as a pet from which the characteristics can be inferred or one characteristic and one negative outcome. (2 characteristics OR 2 negative outcomes - infer characteristics OR - 1 characteristic and 1 negative outcome) For example:

1. "Wombats have sharp claws and they sleep in burrows."
2. "Wombats would tear your curtains and dig tunnels in your lawn."
3. "Wombats would tear your curtains and they are nocturnal."

**Partial**

These responses demonstrate some understanding of the characteristics of wombats and their unsuitability as pets by providing at least one characteristic discussed in the passage that would make them unsuitable as pets, or they discuss a negative outcome of having a wombat as a pet without discussing a particular characteristic. (1 characteristic or 1 negative outcome) For example:

1. "Wombats have sharp claws."
2. "Wombats need open space."
3. "They are a wild animal."
4. "They might bite."
5. "They are scared of you (shy)."
6. "They might die (become extinct)."
7. "They would be hard to feed" (trouble getting food, their kind of food is hard to get, etc.).  
(comments on quantity do not count)

**Unsatisfactory**

These responses demonstrate little or no understanding of the characteristics of wombats that would make them unsuitable as pets. For example:

1. "I think wombats would make good pets."
2. "Wombats are cute and fuzzy."
3. "Wombats need trees to breathe."
4. "They are dangerous."
5. "They might wreck your house."
6. "They might attack you."

**Question Eleven:** Wombats: Reasons not to have wombats as pets

**Extensive - Student Response**

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

Wombats would not make a good pet because they are wild. For this reason wombats are afraid of people and if it got scared it could tear parts of your body up by using its sharp claws. Wombats sleep in burrows up to fifteen feet deep. It could not sleep in a cage, plus wombats are only active at night. The only thing it would do is sleep. For these reasons wombats would not make good pets.

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

I think that people shouldn't have wombats for pets because in the passage it says they live in burrow so you know their going to dig in the house. And also it would probably describe you at night while you are sleeping because they move alot in the dark or at night.

**Scorer's Commentary:** Both responses demonstrate an in-depth understanding of the characteristics of wombats that make them unsuitable as pets. The first response includes multiple characteristics of wombats (wild, afraid of people, sharp claws, sleep in burrows, active at night) and connects fear of people and sharp claws to a negative outcome of possible attack. The second response provides two characteristics and connects each to a negative outcome: wombats live in burrows so they might dig in the house, and wombats are nocturnal ("move a lot ...at night") so they might disturb you.

**Question Eleven:** Wombats: Reasons not to have wombats as pets

**Essential - Student Response**

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

1. Because they are wild animals,

2. They need a place to dig burrows.

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

Because they live in burrows and people don't want burrows in their yards. Also neighbors would not like them around their house.

**Scorer's Commentary:** Both responses demonstrate an understanding of characteristics of wombats that make them unsuitable as pets. The first response provides two characteristics of wombats, without describing a negative outcome of having a wombat as a pet. The second response provides one characteristic (live in burrows) and connects it to a negative outcome ("people don't want burrows in their yards").

**Partial - Student Response**

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

They are scared to live with people because they think that they think that were going to hurt him.

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

I think that wombats should be able to live freely out in the wild. It would probably be to hard to keep one as a pet.

**Question Eleven:** Wombats: Reasons not to have wombats as pets

**Unsatisfactory - Student Response**

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

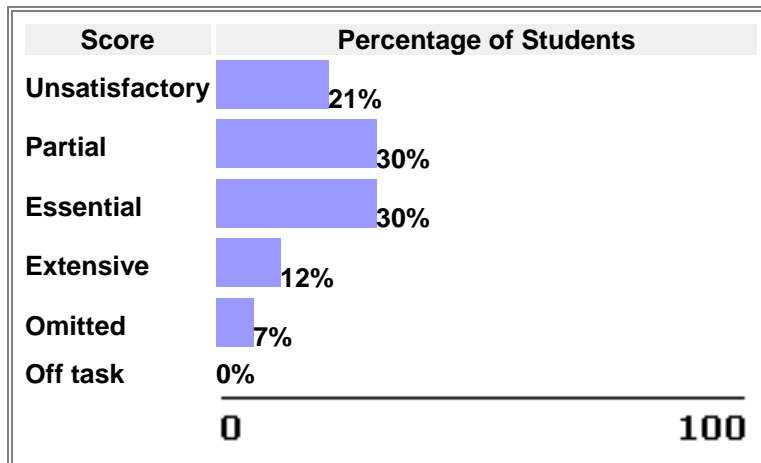
*They will attack people  
and they live in trees.*

11. Give two reasons why people should not have wombats as pets. Use what you learned in the passage to support your answer.

*because you can't take  
care of them easily. As  
you can a other pet.*

**Scorer's Commentary:** Both responses demonstrate little or no understanding of the characteristics of wombats that make them unsuitable as pets. The first response incorrectly states that wombats live in trees, while the second response is an unsupported personal opinion.

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 10% Extensive



“Ellis Island” questions have two-part scoring guides, acceptable and unacceptable.

The questions on the worksheets are arranged in order from easiest to most difficult. The question numbers are not in sequence because they are posted on the Alaska NAEP web page in a different order. All questions for this reading passage can be found at [http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html).

<h2 style="margin: 0;">Grade 8</h2> <h1 style="margin: 0;">NAEP Reading Questions:</h1> <h2 style="margin: 0;">“Ellis Island”</h2>	
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Alaska Grade Level Expectation Question Aligns To	Description of NAEP Question	Multiple-Choice or Constructed Response	Percent Correct Or Full Comprehension by Alaska Students	Question Number and Page Number
3.3.2 Connecting information within a text by making inferences and/or drawing conclusions across texts or other summarized information	When saw statue – feelings	CR	87%	<a href="#">Q 2</a> , P. 5
3.4.2 Locating information in narrative and informative text to answer questions related to main ideas or key details	Exam required -- beside medical	CR	72%	<a href="#">Q 11</a> , P. 22
3.3.2	"Land of free.." not so – why	CR	63%	<a href="#">Q 7</a> , P. 14
3.6.2 Analyzing the use of literary devices appropriate to genre (i.e., dialogue, simile, metaphor, personification, foreshadowing, time sequence, imagery, or repetition) to analyze literary works and non-fiction	Uses immigrants'; words – why	CR	62%	<a href="#">Q 9</a> , P. 18
3.3.2	They felt like cattle – why	CR	46%	<a href="#">Q 5</a> , P. 10



## Ellis Island: Doorway to America

By Bill Walter

For such an important place, Ellis Island did not start out as much. Named after Samuel Ellis, the 27-acre knot of an island barely stuck out of the water at high tide.

Ellis Island became important to millions of immigrants in 1892, however, when the U.S. government converted it to an immigration station. Between 1892 and 1954, the island became—for more than 17 million souls—the doorway to America.

As you will see in their own words below, America offered immigrants more than just opportunity. You also will see that the “the land of the free” was not so free to everyone, after all.

### Escaping to America

The closing years of the 19th century were an oppressive time in many eastern and southern European nations. In such countries as Russia, Poland, and Armenia, millions of families were suffering. Wars, famines, and pogroms (organized massacres of Jews and other minorities) caused millions of people to flee.

Ida Mouradjian fled to America from Armenia to escape annihilation by the Turkish government:

*They [the Turks] would displace every Armenian out of their own homes, out of their own towns and drive them into the Syrian Desert. The idea was to get every Armenian there and by the time they got there they would either die of hunger or exposure or pestilence.*

But not all were running from the horrors of violence or poverty. Some, like Theodore Lubik from the Ukraine, wanted to avoid the military draft and simply saw the U.S. as a great opportunity:

*A friend of mine, he had gone to America. He came to Europe once on a visit...He looked just like a governor—horses, wagon, dressed fine, giving his pocket change to us. He gave me ten cents or a quarter—that was big money.*

### Hard Time Traveling

In these times of turmoil, one could not easily move to the U.S. The trials of getting to Ellis Island were often life-threatening in themselves.

Along the way, many immigrants had to contend with border guards, thieves, and crooked immigration agents. But it was the trip across the Atlantic that immigrants tended to remember most.

Crammed into poorly ventilated sleeping areas or cabins below deck, immigrants—many of whom had never seen the sea before—often suffered rough crossings. Vera Gauditsa, pregnant during her crossing from Czechoslovakia, remembered the torture of seasickness:

*I was pretty tough, but on the boat I was very sick. I thought the child wanted to be born right then. I had a cabin, but in the cabin was nothing. You had to go through the whole boat to get to the showers and a toilet. So imagine when you are sick and you have to go to the bathroom and walk!*

But upon seeing their destination, most immigrants—like Sarah Asher from Russia—forgot about sickness and thought only of a bright future:

*About four or five o'clock in the morning we all got up. The sunshine started and what do we see? The Statue of Liberty!*

*Well, she was beautiful with the early-morning light. Everybody was crying. Beautiful colors, the greenish-like water—and so big. We could see New York already, with the big buildings and everything. . .*

*There was a house where the boat stopped but only the Americans were able to go out, but we foreigners remained. Our boat moved further, and that was when we realized we were going to Ellis Island.*

### **Stuck at the Door**

Having to wait while first- and second-class passengers got off the boat, many immigrants began to realize that their troubles were not over.

After docking at Manhattan Island, immigrants in steerage were shipped by barge to Ellis Island, to go through examinations. On the island, the immigrants were guided into holding pens in the Great Hall. Irene Zambelli, from Greece, recalled the routine:

*There were little gates, the same as you go [through] to the subways. . . The first gate we [Irene and her cousin] passed they asked what we were to one another. Then we came to the next gate and they asked us how much was two and two, and four and four. We answered and went to the next gate.*

### **Cutting Back the Flow**

The number of immigrants increased over the years, peaking at 1,285,349 in 1907. U.S. officials grew concerned. They saw the growing numbers as a threat to American workers. The officials were afraid the foreigners would take away wages and jobs. As a result, the entrance examinations were made tougher. They included a medical exam and a literacy test. An immigrant who failed one of these tests faced deportation (being sent back) to his or her native country.

Of all the examinations, the medical exam seemed to cause immigrants the most concern, recalled Catherine Bolinski, who came from Poland:

*They turned your eye[lid] over—I had to blink a couple of times that way. I'll never forget it. They looked at your throat and to see if you had any rashes on your body. They found things wrong with some people. They sent them back, after they [had] sold everything to come here, so they were crying, they felt very bad.*

The thought of being deported was terrifying. Fannie Kligerman, who escaped from Russia with her family, remembered the fear:

*One of my brothers had something wrong with him. It was a sty. It left a funny thing and they put him aside. And they told us that if there was anything wrong with him, he'd have to go back to Europe. Oh, it was frightening. My father said, "I'm not going on without the children. We will all go back."*

### **Charting America's Course**

Only three percent of those who arrived at Ellis Island between 1892 and 1954 were turned away. By 1924, however, the government changed its policy. It slammed shut the "open door" that had allowed so many millions to flock to the U.S. The Immigration Act of 1924 set a quota of 164,000 immigrants per year. By 1954, Ellis Island had been shut down.

But for those who had passed through, America was truly a land of opportunity—despite often-severe hardships. Settling throughout the U.S., immigrants such as composer Irving Berlin, football coach Knute Rockne, and Supreme Court Justice Felix Frankfurter added to America's strength.

Having escaped from Russia, Arnold Weiss voiced the determination and hope of the immigrants who passed through Ellis Island:

*From the whole story of what I went through in all my years—and some of it wasn't very pleasant—I still love this country. I love this country in spite of everything.*

From "Ellis Island: Doorway to America" by Bill Walter. Published in *JUNIOR SCHOLASTIC*, April 6, 1990. Copyright (c) 1990 Scholastic Inc. All rights reserved. Used by permission.

## Identifying Acceptable and Unacceptable Responses To Questions over “Ellis Island”

**Question Two:** How did the immigrants probably feel when they saw the Statue of Liberty?

**GLE: 3.3.2** Connecting information within a text by making inferences and/or drawing conclusions across texts or other summarized information

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses provide an appropriate feeling that reflects information in the passage. Responses at this level may include one of the following (or any word or sentence that is appropriate to the passage): they were probably happy to have reached their destination; relieved that the trip was over; they may have felt that they were finally free; felt like crying; wonderful, happy, great, free, relaxed, or excited.

Unacceptable responses may provide an inappropriate feeling that does not reflect information in the passage, or may provide vague or contradictory feelings: felt mad about it; proud to see it; radical.

1. How did the immigrants probably feel when they saw the Statue of Liberty?

Happy and sad

Is the response above acceptable or unacceptable? Why?

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2. How did the immigrants probably feel when they saw the Statue of Liberty?

They felt happy. They were crying because they made it to America.

Is the response above acceptable or unacceptable? Why?

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3. How did the immigrants probably feel when they saw the Statue of Liberty?

I think they felt very happy  
to see land after all the time  
on the high sea.

Is the response above acceptable or unacceptable? Why?

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4. How did the immigrants probably feel when they saw the Statue of Liberty?

They felt sad!

Is the response above acceptable or unacceptable? Why?

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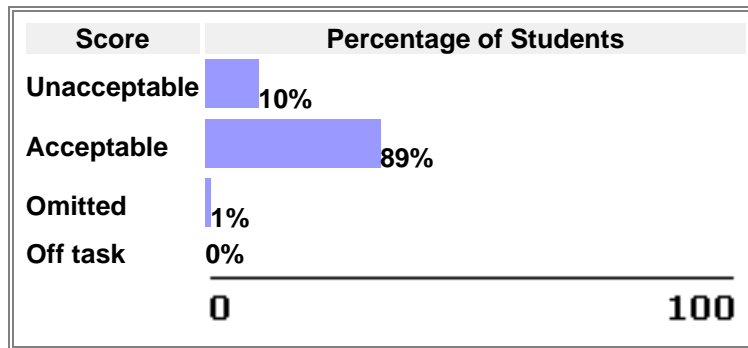
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**Scorer’s Commentary on Acceptable Responses:** Responses two and three provide feelings that are explained in relation to the text. The second response provides a positive feeling and explains that feeling in relation to the immigrants reaching their destination of America. The third response provides a positive feeling and explains that feeling in relation to the immigrants arriving on land after a difficult journey at sea.

**Scorer’s Commentary on Unacceptable Responses:** Responses one and four provide feelings, but they are unexplained and have no relation to the text. The first response provides an appropriate feeling the immigrants may have had upon seeing the Statue of Liberty, happy, but contradicts that feeling with an inappropriate feeling, sad. The fourth response provides only the feeling of sad, which is unexplained and is not text-based.

**Question Two Performance Results:** Ellis Island: When saw statue – feelings

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 87% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Ellis Island”

**Question Eleven:** Besides the medical examination, what other type of examination mentioned in the passage did an immigrant have to pass before entering America?

**GLE: 3.4.2** Locating information in narrative and informative text to answer questions related to main ideas or key details

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses refer to one of the other examinations mentioned in the passage and may include one of the following: a literacy or math exam, or intelligence test.

Unacceptable responses do not provide an examination other than the medical examination.

1. Besides the medical examination, what other type of examination mentioned in the passage did an immigrant have to pass before entering America?

There ability to do arithmetic and  
also were to tell were that  
were from. And also literacy tests.

Is the response above acceptable or unacceptable? Why?

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2. Besides the medical examination, what other type of examination mentioned in the passage did an immigrant have to pass before entering America?

The other type of examination  
was a literacy examination

Is the response above acceptable or unacceptable? Why?

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3. Besides the medical examination, what other type of examination mentioned in the passage did an immigrant have to pass before entering America?

Tests that were to see if they  
were qualified to get in.

Is the response above acceptable or unacceptable? Why?

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4. Besides the medical examination, what other type of examination mentioned in the passage did an immigrant have to pass before entering America?

The other examination the immigrants  
had to take in order to  
get in was one of the  
tests.

Is the response above acceptable or unacceptable? Why?

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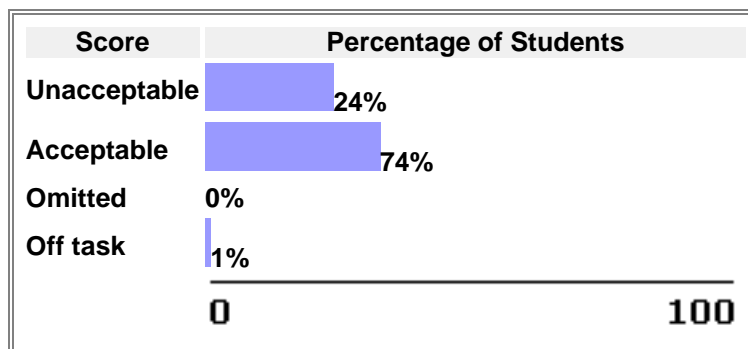
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**Scorer’s Commentary on Acceptable Responses:** The first and second responses provide both the literacy test and math test as specific types of examinations that an immigrant had to pass before entering America. The second response provides the literacy test as a specific type of examination.

**Scorer’s Commentary on Unacceptable Responses:** Neither the third nor the fourth response provides a specific type of examination, other than the medical examination, that an immigrant had to pass before entering America.

**Question Eleven Performance Results:** Ellis Island: Exam required – beside medical

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 72% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Ellis Island”

**Question Seven:** Why does the author say “ ‘the land of the free’ was not so free to everyone, after all”?

**GLE: 3.3.2** Connecting information within a text by making inferences and/or drawing conclusions across texts or other summarized information

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses demonstrate understanding of the author's statement by indicating at least *one* of the following: that there were still many rules and/or laws to be followed; that some of the immigrants had to pay bribes or money to get through immigrations; that some immigrants could not even enter the country; that they were given poor treatment; that they didn't get the freedom they expected; that it was more free to people who lived in America all their lives than to immigrants; that they had to pass two tests; that they were not treated the same as most Americans.

Unacceptable responses do not demonstrate understanding of the author's statement and may include the following: because not all people were free; not treated the same.

1. Why does the author say " 'the land of the free' was not so free to everyone, after all"?

Immigrants were not as free as  
citizens. The immigrants were treated  
differently, despite the hardships they  
went through to be free.

Is the response above acceptable or unacceptable? Why?

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2. Why does the author say " 'the land of the free' was not so free to everyone, after all"?

because America was free.

Is the response above acceptable or unacceptable? Why?

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3. Why does the author say " 'the land of the free' was not so free to everyone, after all"?

"The land of the free" was not so free to everyone after all because some immigrants were deported for a sickness.

Is the response above acceptable or unacceptable? Why?

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4. Why does the author say " 'the land of the free' was not so free to everyone, after all"?

He was saying that all the people was free from the land.

Is the response above acceptable or unacceptable? Why?

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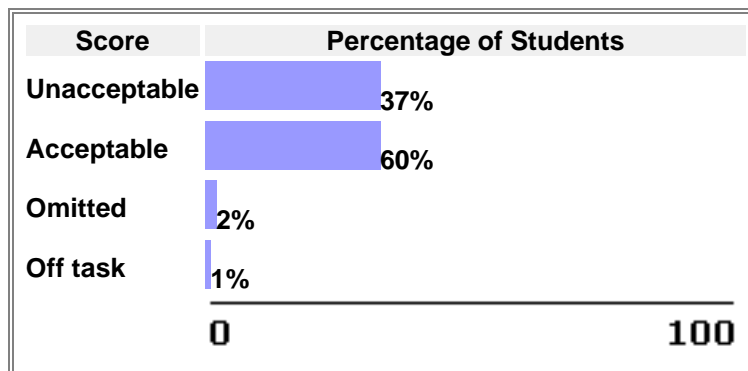
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**Scorer’s Commentary on Acceptable Responses:** The first and third responses provide a general understanding of the quote by addressing the difference between an immigrant and a citizen. The third response provides a specific text-based limitation of freedom observing that immigrants were deported due to illness.

**Scorer’s Commentary on Unacceptable Responses:** The second and fourth responses misinterpret the quote and fail to provide a text-based explanation of why "the land of the free" was not free to everyone."

**Question Seven Performance Results:** Ellis Island: "Land of free.." not so – why

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 63% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Ellis Island”

**Question Nine:** Why does this passage contain the actual words of some of the immigrants?

**GLE: 3.6.2** Analyzing the use of literary devices appropriate to genre (i.e., dialogue, simile, metaphor, personification, foreshadowing, time sequence, imagery, or repetition) to analyze literary works and non-fiction

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses demonstrate understanding of why the immigrants were quoted by indicating at least *one* of the following: to show how it must have felt for some people to move to America; to provide firsthand evidence; interesting/personal point of view; makes it authentic (not made up); to know how it was; to know how they felt; that's how it was back then.

Unacceptable responses do not demonstrate understanding of the use of the quotations. For example: because they had to pass through before entering the United States; because the author was an immigrant; they were famous speeches.

1. Why does this passage contain the actual words of some of the immigrants?

the say it because that is  
the way to go to AMERICA

Is the response above acceptable or unacceptable? Why?

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2. Why does this passage contain the actual words of some of the immigrants?

To tell about the immigration  
process.

Is the response above acceptable or unacceptable? Why?

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3. Why does this passage contain the actual words of some of the immigrants?

Because they want  
to tell you what  
they said.

Is the response above acceptable or unacceptable? Why?

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4. Why does this passage contain the actual words of some of the immigrants?

To tell you what did happen  
back then. To relive the hard  
time then.

Is the response above acceptable or unacceptable? Why?

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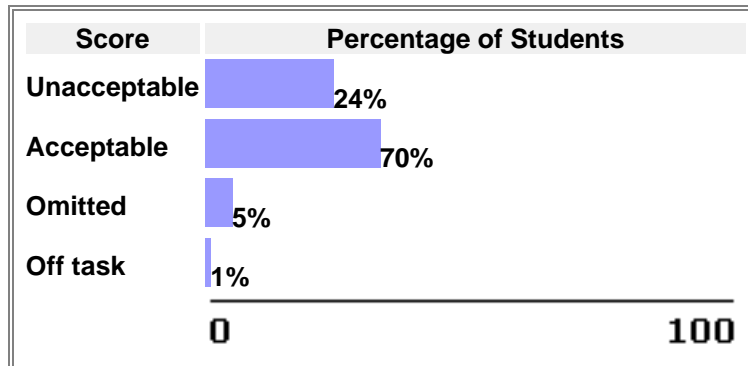
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**Scorer’s Commentary on Acceptable Responses:** The second and fourth responses address how the actual words function as an aid in understanding the immigration process and what had happened to the immigrants.

**Scorer’s Commentary on Unacceptable Responses:** Neither the first or third response provides an acceptable reason why the article uses the actual words of the immigrants.

**Question Nine Performance Results:** Ellis Island: Uses immigrants' words – why

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 62% Acceptable



## Identifying Acceptable and Unacceptable Responses To Questions over “Ellis Island”

**Question Five:** What two experiences might have caused the new immigrants to say that they felt like cattle?

**GLE: 3.3.2** Connecting information within a text by making inferences and/or drawing conclusions across texts or other summarized information

What is the learning target? What is another way of restating the Grade Level Expectation?

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**Scoring Guide:** Acceptable responses indicate at least two of the following: that the travel conditions were very poor; they had to get examined; people were processed in cattle-like pens or cages; they had to stand in long lines; they were herded around.

Unacceptable responses may indicate one of the following: they felt so fat; sailing and getting examined; because they were not treated well; being on a boat.

1. What two experiences might have caused the new immigrants to say that they felt like cattle?

*1. They waited for hours. 2. They stayed in cattle pen like cages.*

Is the response above acceptable or unacceptable? Why?

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2. What two experiences might have caused the new immigrants to say that they felt like cattle?

*They said that because the people were in the middle of war.*

Is the response above acceptable or unacceptable? Why?

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3. What two experiences might have caused the new immigrants to say that they felt like cattle?

Some had to leave and some were  
slaves.

Is the response above acceptable or unacceptable? Why?

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4. What two experiences might have caused the new immigrants to say that they felt like cattle?

Because they were treated badly on the  
boat They had small stuffy room and  
had little to eat.

Is the response above acceptable or unacceptable? Why?

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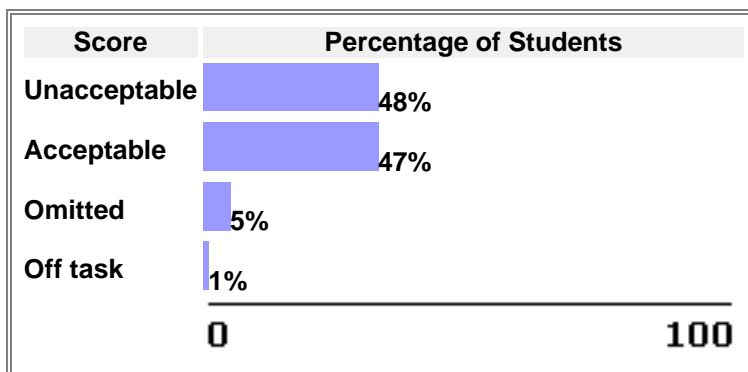
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**Scorer’s Commentary on Acceptable Responses:** The first and fourth responses provide two experiences the immigrants had that might have caused them to say that they felt like cattle. The first response provides two negative aspects of immigration associated with waiting to be processed at Ellis Island. The fourth response provides two negative aspects associated with life on the boat: no room and little to eat.

**Scorer’s Commentary on Unacceptable Responses:** Neither the second nor the third response provides text-based information related to what might have caused the immigrants to say that they felt like cattle.

**Question Five Performance Results:** Ellis Island: They felt like cattle – why

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 46% Acceptable



## Guided Practice/Reasoning Strategies

The NAEP is often called a model of good assessment because of its ability to assess both content and critical thinking. It is a carefully designed assessment and released NAEP questions offer teachers many opportunities to use guided practice with students to show how to use reasoning strategies to answer questions over a reading passage.

### **Model Reasoning Strategies, Including Higher-Level Thinking Skills**

Teachers can use both NAEP constructed-response questions and multiple-choice questions for guided practice to teach reasoning strategies. A common misunderstanding is that multiple-choice questions cannot assess reasoning proficiency. Patterns of reasoning such as comparative reasoning and various types of inference (generalizing, author's purpose, main idea) can be assessed in selected response format (Stiggins et al., 2006, p. 102). Many NAEP questions assess complex reasoning skills.

Both constructed-response and multiple-choice items can be used to evaluate complex, critical thinking skills, skills students need to do well on state assessments, as pointed out by Schmoker.

The prevalence of higher-order standards surprises many educators but is borne out by a recent review of state assessments that found that almost all of the items on these tests—an encouraging trend—are higher-order and inferential in nature (Liben & Liben, 2005). . . . it is heartening that state reading assessments are increasingly dominated by skills such as the ability to infer; to identify an author's bias or persuasive techniques; to support interpretations or main ideas with evidence from the text; and to summarize, synthesize, analyze, and evaluate. (2006, p. 40)

### **Reading Item Maps**

NAEP item maps for each reading passage describe the knowledge and skills assessed in each question and graphically show how questions become more complex and difficult. For example, at grade 4 most students can “retrieve and provide a text-related fact” while only 10% can demonstrate full comprehension for an item that asks students to explain the author's purpose for including information. Item maps can be used for a discussion about why some questions are harder to answer than others. They also give a sense of what skills students need at different achievement levels.

### **Suggested Procedures for Using Materials in This Section**

1. Print the reading passage and questions. Ask students to complete these on their own.
2. After students answer the questions on their own, share the item map and reasoning strategies worksheets with students.

3. Use the reasoning strategies worksheets to model how to interpret and answer each question on the item map correctly with the entire class. These worksheets address the following questions:
  - What does the item map show about this item?
  - How do you know your answer is correct?
  - Why are the other responses wrong or incomplete?

### **Variation**

Assign one question at each NAEP achievement level so that reasoning strategies for questions at the NAEP Basic, Proficient, and Advanced level are modeled for students.

### **Arrangement of Contents in This Section**

“Space Pioneer” Grade 4 Reading Passage and Questions

“Space Pioneer” Item Map

Reasoning Strategies Worksheets for “Space Pioneer” Questions on Item Map

“Thank You M’am” Grade 8 Reading Passage Link and Questions

“Thank You M’am” Item Map

Reasoning Strategies Worksheets for “Thank You M’am” Questions on Item Map

Answer Key for Reading Passages

### **Additional Resource for Teaching Reasoning Strategies**

For another way to model reasoning strategies, teachers may find the article, “QAR: Enhancing Comprehension and Test Taking across Grades and Content Areas,” *The Reading Teacher*, November 2005, by Taffy Raphael and Kathryn Au, helpful. The article uses NAEP released questions to describe using Question Answer Relationships to provide a framework for comprehension instruction. The authors state that “. . . studies suggest that many students of diverse backgrounds are not receiving the kind of comprehension instruction that would prepare them well on assessments that are increasingly oriented toward higher level thinking with text. It is clear from research that all students need instruction in reading instruction, especially the kind that focuses on the strategies required to answer and generate challenging questions.” QAR “gives teachers and students a language for talking about the largely invisible processes that constitute listening and reading comprehension across grades and subject areas.”

QAR involves teaching strategies so students can identify and answer these types of reading comprehension questions.

- **"Right There" Questions:** The answers to these questions can be found explicitly stated in the passage.
- **"Think and Search" Questions:** Students need to use such strategies as summarizing and making simple inferences to answer these questions.
- **"Author and You" Questions:** Students need to use more complex skills such as making complex inferences and distinguishing fact and opinion.

### **Focusing Instruction through Use of Standards Based Assessment Data**

The section on Test Taking Strategies contains ideas on how to use Alaska Standards Based Assessment data, released test questions, and reasoning strategies to focus instruction to improve student performance in various areas.

## **Dr. Shannon Lucid: Space Pioneer**

**by Vicki Oransky Wittenstein**

When Shannon Lucid was growing up in Bethany, Oklahoma, during the 1950s, she dreamed of exploring outer space. She loved pioneer stories about America's West, and felt she had been born too late.

But then she read about rocket inventor Robert Goddard. She realized that she had not been born too late to be a space explorer!

And explore space she did. On September 26, 1996, after a month's delay, Dr. Lucid returned to Earth after spending more than six months on the Russian space station *Mir*.

Dr. Lucid was the second American astronaut to live aboard *Mir* as part of a program to study how long-term travel in space affects the human body. The results will help the National Aeronautics and Space Administration (NASA) develop an international space station.

Dr. Lucid loved life in orbit. She said: "One of the best things to do is to look out the window and see the Earth, and watch the seasons change. I got to see the ice in all the lakes break up, and the Earth bloom."

Now she holds the American and women's record for the longest stay in space, and she received the Congressional Space Medal of Honor from President Clinton.

### **Adventurous Spirit**

It's possible that Dr. Lucid became an adventurous spirit when she was a baby. Her parents took her along as they traveled throughout China during and after World War II. The family settled in the United States when Shannon was six, but the future astronaut was always looking forward to the adventure of another move.

She pursued her love of science and her dream of space travel. As a result, she earned a pilot's license and degrees in chemistry and biochemistry.

But she was disappointed when NASA accepted only men to its first space program in 1959 and 1960. When NASA finally admitted women in 1978, Dr. Lucid was one of the first six women to be accepted. And she was a crew member on several successful space shuttle missions.

### **Aboard *Mir***

On the Russian space station, Dr. Lucid's determination helped her cope with the stress of weightlessness, a small living space, and a diet of dehydrated foods.

She also learned from the first American to live aboard *Mir*, Dr. Norman Thagard. Dr. Thagard had lost seventeen pounds while eating unfamiliar Russian food, and he had been lonely.

Dr. Lucid was determined to stay healthy and happy. She took some American foods, such as shrimp, tomatoes, potato chips, and candy. Supply ships delivered her favorite snacks as well as fresh fruits and vegetables.

And she stayed in touch with her family. Messages and books came from home. She wrote to her family through daily E-mail and talked to them in frequent "visits" by radio and television.

To stay fit in space, Dr. Lucid spent hundreds of hours exercising on a treadmill and stationary bicycle. Although she was in space longer than any other American, she maintained her weight. Also, she lost only a little strength in her bones and muscles.

When she returned to Earth, she surprised everyone because she was still strong enough to walk off the space shuttle instead of being carried.

While on *Mir*, Dr. Lucid also did research. In experiments on the development of quail eggs and growing wheat, she studied the effects of weightlessness on living things. In fact, her own body was an experiment in human adaptation to space. Dr. Lucid also studied ocean currents and photographed Earth.

She enjoyed life on *Mir* but missed bookstores, gooey desserts, the sun, the wind, and in-line skating with her daughters. "You really were isolated," she said. "You just couldn't run out and buy some fresh fruit."

### **Two Yuris**

Dr. Lucid's companions for most of her stay were two men, Russian cosmonauts named Yuri Usachov and Yuri Onufriyenko.

Dr. Lucid's mission was successful partly because she had a good relationship with the cosmonauts. She joked, ate, and watched adventure movies with "Yuri and Yuri," as she calls them.

Even though she and the two cosmonauts grew up when the United States and Russia were enemies, they became friends aboard *Mir*.

"It dawned on all three of us at once how remarkable it was that we were three people who grew up in totally different parts of the world, mortally afraid of each other," she said. "And here we were in an outpost in space, enjoying living together."

Dr. Shannon Lucid can inspire anyone who thinks that dreams come true only in fairy tales. "Who would have ever thought that I would have spent time on a Russian space station?" she said. "So just take advantage of every opportunity that comes your way, and make the most of it."

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1. What are two things about Shannon Lucid that could be learned from reading this passage?

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2. According to the passage, what was the purpose of the space station *Mir* program?

- A) To learn how the body reacts to long-term travel in space
- B) To observe how people from different cultures live together
- C) To see what the seasons look like from outer space
- D) To take pictures of the Earth and of water currents

3. During her time on *Mir*, what did Shannon Lucid do to stay fit?

- A) She studied the effects of weightlessness.
- B) She read pioneer stories.
- C) She exercised on a treadmill.
- D) She experimented with growing wheat.

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

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5. What did Shannon Lucid miss while in space?

- A) Eating her favorite snacks
- B) Riding a stationary bicycle
- C) Talking to her family
- D) Feeling the sun and the wind

6. What surprised people when Shannon Lucid returned to Earth?

- A) She wanted to eat gooey desserts and go skating.
- B) She still wanted to exercise on a treadmill.
- C) She walked off the space shuttle on her own.
- D) She still felt she had been born too late.

7. Why did Shannon Lucid think it was remarkable that she and the Russian cosmonauts became friends?

- A) They lived in a very small space station.
- B) Their countries had once been enemies.
- C) The time they spent on *Mir* was not very long.
- D) There was not enough food for all of them.

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

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9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

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**NOTE:** NAEP achievement levels (Basic, Proficient, and Advanced) are not directly comparable to state assessment achievement levels. NAEP achievement levels are set quite high (the NAEP Basic level is roughly equal to Proficient on state assessments). The item map can be used, however, to show how items become more difficult and to illustrate for students that different skills are needed for different achievement levels.

Grade 4 NAEP Scale Item Map for Reading Passage “Space Pioneers”	
Performance data are for Alaska students. (Items were mapped according to national student performance.) In 2005 58% of Alaska grade 4 students scored at the NAEP Basic and Above achievement level and 62% students nationally scored at the Basic and Above level.	
The map location for each question represents the probability that, at any given score point, 65 percent of the students (for a constructed-response question) and 74 percent of the students (for a four-option multiple-choice question) answered that question successfully. For example, in the case of the multiple-choice question that maps at 255 on the scale, fourth-grade students with a score of 255 have a 74 percent chance of answering this question correctly. In other words, out of a sample of 100 students who scored 255, 74 would be expected to have answered this question correctly.	
	Space Pioneer Q4 CR--10% Full Comprehension
367	<b>Explain author's purpose for including information</b> Q: Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.
	Space Pioneer Q8 CR--15% Full Comprehension
330	<b>Explain causal relation between text information</b> Q: Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.
<b>268</b>	<b>Advanced</b>
	Space Pioneer Q5 MC--50% Correct
255	<b>Discriminate between closely related text ideas to find relevant detail</b> Q: What did Shannon Lucid miss while in space?
	Space Pioneer Q2 MC--55% Correct
238	<b>Identify explicitly stated but embedded text detail</b> Q: According to the passage, what was the purpose of the space station Mir program?
<b>238</b>	<b>Proficient</b>
	Space Pioneer Q9 CR--53% Full Comprehension
229	<b>Infer or identify a lesson based on text information</b> What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.
	Space Pioneer Q7 MC--62% Correct
226	<b>Recognize reason that explains feelings of biographical subject</b> Q: Why did Shannon Lucid think it was remarkable that she and the Russian cosmonauts became friends?
<b>208</b>	<b>Basic</b>
	Space Pioneer Q9 CR--72% Partial or Full Comprehension
193	<b>Retrieve and provide a text-related fact</b> Q: What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.



## Discussion of Question Nine over “Space Pioneer”

**Question Nine:** What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

This is on the item map at scale score 193 for partial comprehension and 229 for full comprehension.

**GLE: 2.10.1** Identifying author’s message, theme, or purpose (e.g., helping others brings great rewards)

What is the learning target? What is another way of restating the Grade Level Expectation?

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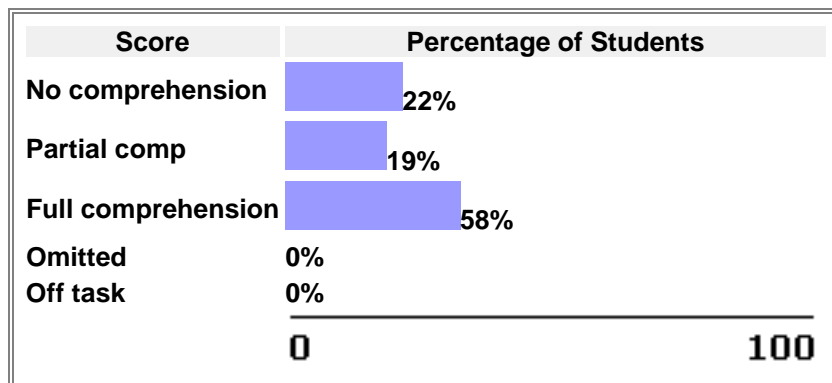


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**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 53% Full Comprehension\*

\*Seventy-two percent of Alaska students showed evidence of at least partial or surface comprehension. Of this 72%, 19% showed partial or surface comprehension, 53% demonstrated full comprehension.

### What does the item map show about this item?

To demonstrate partial comprehension, students only needed to provide a text-related fact. To demonstrate full comprehension, students needed to infer or identify a lesson based on text information.

Most students could provide a fact or detail from “Space Pioneer.” It was more difficult for students to identify a lesson.

### How do you know your answer is correct?

To demonstrate full comprehension, students first needed to identify a lesson or message. That is, they needed to identify something the story teaches about life. Then, they needed to provide information from the text to support that interpretation.

Discuss why these responses showed evidence of full comprehension.

#### Evidence of full comprehension - Student Response

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

dreams don't only come true in fairy  
tales because Mr. Lucid really want to be  
an astronaut and she finally did become  
an astronaut.

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

A lesson is if you were ever enemies with someone,  
you could still make up the friends. Cause about the  
Russians used to be enemies.

**Scorer's Commentary:** The first response uses information from the passage to draw an inference about a lesson that could be learned. The second response provides a lesson based on factual information in the passage.

### Why are the other responses wrong or incomplete?

Students who demonstrated only partial comprehension retrieved and provided a text-related fact but did not offer a lesson. Students who demonstrated little or no evidence drew conclusions or lessons not supported by the text. Discuss why these responses showed evidence of partial or little comprehension.

#### Evidence of partial or surface comprehension - Student Response

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

Dr. Norman Thagrar was  
the first american to  
live on Mir. He also  
lost 17 lbs.

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

You don't want as much  
in space at all.

**Scorer's Commentary:** The first response provides accurate factual information but does not offer a lesson learned from the passage. The second response provides a detail about what Lucid learned but does not derive a lesson from the passage.

#### Evidence of little or no comprehension - Student Response

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

Never feel too much at home in  
space remember earth is your home.

9. What is one lesson that could be learned from reading this passage? Use information from the passage to support your answer.

Never stay in space too long.

**Scorer's Commentary:** The first response offers a lesson but it is based on personal opinion that is irrelevant to the article. The second response offers a lesson, but it is unclear how the lesson relates to information in the passage.



## Discussion of Question Seven over “Space Pioneer”

**Question Seven:** Why did Shannon Lucid think it was remarkable that she and the Russian cosmonauts became friends?

This is on the item map at scale score 226.

**GLE: 2.2.4** Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)

What is the learning target? What is another way of restating the Grade Level Expectation?

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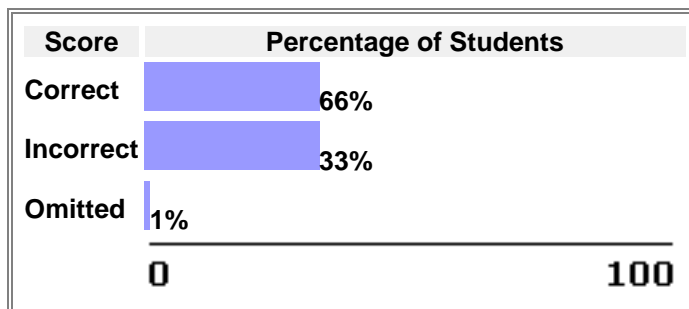
**Description:** Space Pioneer: Why friendship on *Mir* remarkable

7. Why did Shannon Lucid think it was remarkable that she and the Russian cosmonauts became friends?

- A) They lived in a very small space station.
- B) Their countries had once been enemies.
- C) The time they spent on *Mir* was not very long.
- D) There was not enough food for all of them.

**KEY: B**

### 2005 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 62% Correct

	A	B *	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	14	66	15	4	1	12

### **What does the item map show about this item?**

Students had to recognize a reason that explained the feelings of the biographical subject. This is the first question on the item map shown at the NAEP Basic level.

### **How do you know your answer is correct?**

Students need to recognize that the answer is found in this part of the reading passage:

Even though she and the two cosmonauts grew up when the United States and Russia were enemies, they became friends aboard *Mir*.

"It dawned on all three of us at once how remarkable it was that we were three people who grew up in totally different parts of the world, mortally afraid of each other," she said. "And here we were in an outpost in space, enjoying living together."

### **Why are the other responses wrong or incomplete?**

About 30% of students chose the first or third possible answers (A: They lived in a very small space station; C: The time they spent on *Mir* was not very long.)

The passage does state that space station had a small living space, but nothing else about the size of the living space is noted. Distractor C is not an idea that is in the passage. The amount of time Shannon Lucid spent aboard the *Mir* space station was not specified but the passage does state that she was part of a study on long-term space travel. And the passage states that she was in space longer than any other American.

## Discussion of Question Two over “Space Pioneer”

**Question Two:** According to the passage, what was the purpose of the space station *Mir* program?

This is on the item map at scale score 238.

**GLE: 2.2.1** Locating information explicitly stated in narrative and informational text to answer literal-comprehension questions

What is the learning target? What is another way of restating the Grade Level Expectation?

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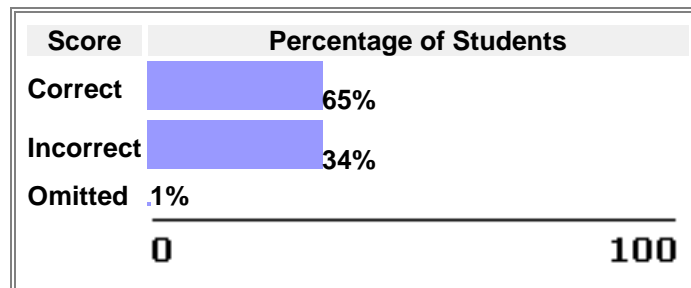
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2. According to the passage, what was the purpose of the space station *Mir* program?

- A) To learn how the body reacts to long-term travel in space
- B) To observe how people from different cultures live together
- C) To see what the seasons look like from outer space
- D) To take pictures of the Earth and of water currents

**KEY: A**

### 2005 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 55% Correct

	A *	B	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	65	8	14	12	1	1

**What does the item map show about this item?**

Students had to identify explicitly stated but embedded text detail. The answer is directly stated in the reading passage, but students had to dig a bit to find the answer. This is the first question on the item map shown at the NAEP Proficient level.

**How do you know your answer is correct?**

The answer is found in the third paragraph; it is embedded because the purpose of the space program is not the main part of the sentence. Other clues that point to this answer are the details about how she kept in good shape while in space.

Dr. Lucid was the second American astronaut to live aboard *Mir* as part of a program to study how long-term travel in space affects the human body. The results will help the National Aeronautics and Space Administration (NASA) develop an international space station.

**Why are the other responses wrong or incomplete?**

Students needed to retrieve the correct information. The details in the possible answers are found in the passage, but they are given to show what Shannon Lucid did to pass her time on the space station.

She liked looking out of the window.

She did research and lived with two Russians.

## Discussion of Question Five over “Space Pioneer”

**Question Five:** What did Shannon Lucid miss while in space?

This is on the item map at scale score 255.

**GLE: 2.2.1** Locating information explicitly stated in narrative and informational text to answer literal-comprehension questions

What is the learning target? What is another way of restating the Grade Level Expectation?

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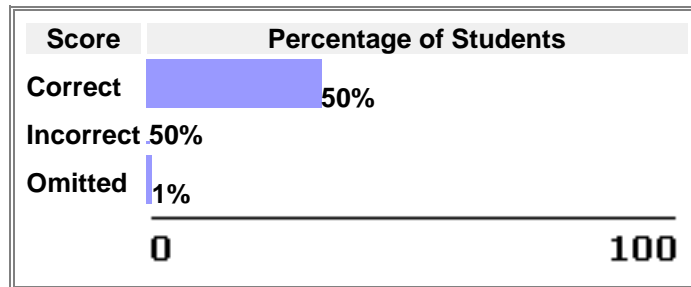
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5. What did Shannon Lucid miss while in space?

- A) Eating her favorite snacks
- B) Riding a stationary bicycle
- C) Talking to her family
- D) Feeling the sun and the wind

**KEY: D**

### 2005 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 50% Correct

	A	B	C	D *	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	14	6	29	50	1	3

**What does the item map show about this item?**

Students had to discriminate between closely related text ideas to find the relevant details. Students had to recognize that other details about what Shannon Lucid did in space did not answer the question of what she missed.

**How do you know your answer is correct?**

The text explicitly states what Shannon Lucid missed while in space:

She enjoyed life on *Mir* but missed bookstores, gooey desserts, the sun, the wind, and in-line skating with her daughters.

**Why are the other responses wrong or incomplete?**

The most frequent incorrect response chosen was C: Talking to her family. The passage states that she spoke to her family frequently, although she did mention missing in-line skating with her daughters. The second most chosen incorrect response was A: Eating her favorite snacks. The passage states that supply ships delivered her favorite snacks.

## Discussion of Question Eight over “Space Pioneer”

**Question Eight:** Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

This is on the item map at scale score 330.

**GLE: 2.2.4** Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)

What is the learning target? What is another way of restating the Grade Level Expectation?

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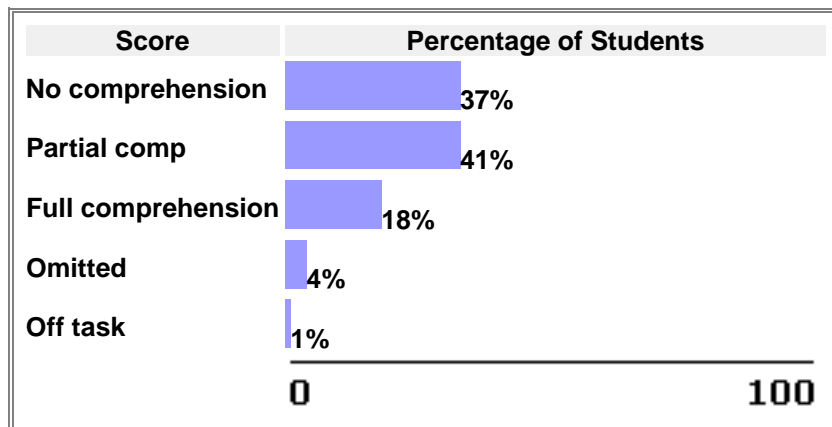


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2005 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 15% Full Comprehension

### What does the item map show about this item?

Students needed to explain causal relation between text information. This is a skill at the NAEP Advanced level.

### How do you know your answer is correct?

Students who demonstrated full comprehension selected an event or experience from her childhood or adulthood and explained why that experience helped her to become an astronaut. Discuss why these responses showed evidence of full comprehension.

**Evidence of full comprehension - Student Response**

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

She traveled with her parents and that inspired her to travel around and see new things.

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

One thing that helped her was being adventurous because if she wasn't she might be scared to go to space.

**Scorer's Commentary:** The first response describes an experience in Lucid's life and explains why that experience helped her to become an astronaut. The second response describes a trait that Lucid had and explains how that trait helped her to become an astronaut.

**Why are the other responses wrong or incomplete?**

Students who demonstrated only partial comprehension chose a relevant experience but did not explain how it helped her become an astronaut. Students who demonstrated little or no evidence chose an experience that did not help her become an astronaut. Discuss why these responses showed evidence of partial or little comprehension.

**Evidence of partial or surface comprehension - Student Response**

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

One thing that helped Lucid to become an astronaut was she read about rockets and things like that.

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

She never gave up and that gave her confidence.

**Scorer's Commentary:** The first response describes one thing that Lucid did, but does not explain how that helped her to become an astronaut. The second response describes a trait that Lucid had but does not explain how "confidence" helped her to become an astronaut.

**Evidence of little or no comprehension - Student Response**

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

She exercised every day and  
stayed healthy.

8. Choose one thing Shannon Lucid did that helped her become an astronaut. Explain why it helped her.

becoming an umpire helped  
her because when you become  
an umpire it shows how  
hard it can be to become  
an astronaut.

**Scorer's Commentary:** The first response provides information related to Lucid's experiences after becoming an astronaut. The second response draws a comparison that is not from the passage and is unrelated to her becoming an astronaut.



## Discussion of Question Four over “Space Pioneer”

**Question Four:** Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

This is on the item map at scale score 367.

**GLE: 2.2.4** Drawing conclusions based on information presented in the text (e.g., cause and effect, character motivation)

What is the learning target? What is another way of restating the Grade Level Expectation?

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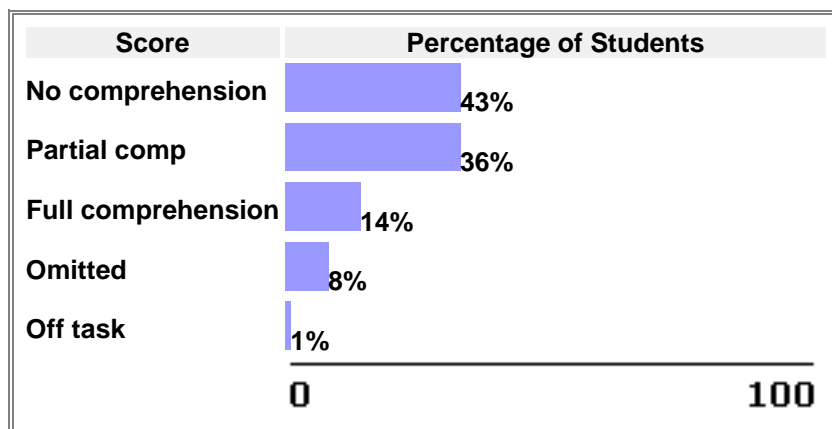


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2005 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 10% Full Comprehension

### What does the item map show about this item?

Students needed to explain author's purpose for including information. This maps at the highest point on this NAEP item map.

### How do you know your answer is correct?

Students who demonstrated full comprehension made a connection between information about what she read as a child to her career as an astronaut.

Discuss why these responses showed evidence of full comprehension.

#### Evidence of full comprehension - Student Response

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

The author tells what Shannon Lucid read about when she was growing up because that gave her a vision and she could do something adventurous like going in space

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

She read about rocket inventors Robert Goddard. When she read these books, she realized she wasn't born too late to be a space explorer.

**Scorer's Commentary:** The first response makes a clear connection between why the author mentioned Lucid's early reading and her subsequent career. The second response makes a connection between Lucid's reading about Goddard and her realization that it wasn't too late for her to become an explorer.

### Why are the other responses wrong or incomplete?

Students who demonstrated only partial comprehension did not make a clear connection between what she read and her career as an astronaut. Students who demonstrated little or no evidence did not try to make a connection or chose unrelated details. Discuss why these responses showed evidence of partial or little comprehension.

**Evidence of partial or surface comprehension - Student Response**

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

She wanted to go to space.

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

The author tells what Shannon Lucid read about when she was growing up because the author wanted us to know what she was like when she was a little girl.

**Scorer's Commentary:** The first response refers generally to Lucid's career, but does not connect that information to her early reading. The second response focuses on why the author included the information, but does not make a connection to her later career.

**Evidence of little or no comprehension - Student Response**

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

She loved reading about Americas West.

4. Why does the author tell what Shannon Lucid read about when she was growing up? Use information from the passage to explain your answer.

When she was a baby, her parents took her along as they traveled throughout China.

**Scorer's Commentary:** The first response provides an example of what Shannon Lucid read, but does not demonstrate understanding of the connection between Lucid's early reading and her subsequent career. The second response provides inappropriate information from the passage that is unrelated to Lucid's early reading and her later career.



**THANK YOU, M'AM**  
by Langston Hughes

To view the reading passage, go to  
<http://nces.ed.gov/nationsreportcard/itmrls/itemdisplay.asp>.



1. Which of the following best describes the boy's feelings in the story?

- A) Frightened then trusting
- B) Angry then hungry
- C) Greedy then generous
- D) Curious then nervous

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

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3. Explain why the woman did not turn the boy over to the police.

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4. When they arrived at the woman's house, what did the boy do?

- A) He felt immediately at home.
- B) He tried to steal her purse again.
- C) He thought about running away.
- D) He apologized for what he had done.

5. Why did the boy sit on the far side of the room while Mrs. Jones was making their dinner?

- A) He wanted to sit close to Mrs. Jones.
- B) He wanted to show Mrs. Jones he could be trusted.
- C) He wanted to help Mrs. Jones prepare the food.
- D) He wanted to keep an eye on Mrs. Jones.

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

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8. The author puts the phrase "*and went to the sink*" in italics mainly to

- A) emphasize the boy's decision
- B) describe the boy's location
- C) indicate the boy's motivation
- D) explain the boy's viewpoint

9. Do you think this story is believable? Use details from the story to explain why or why not.

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10. What do you think Mrs. Jones hopes the boy will learn? Support your answer with evidence from the story.

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**NOTE:** NAEP achievement levels (Basic, Proficient, and Advanced) are not directly comparable to state assessment achievement levels. NAEP achievement levels are set quite high (the NAEP Basic level is roughly equal to Proficient on state assessments). The item map can be used, however, to show how items become more difficult and to illustrate for students that different skills are needed for different achievement levels.

Grade 8 NAEP Scale Item Map for Reading Passage "Thank You M'am"	
Performance data are for Alaska students. (Items were mapped according to national student performance.) In 2005, 70% of Alaska students scored at NAEP Basic and Above for grade 8 reading and 71% students nationally scored at the Basic and Above level.	
The map location for each question represents the probability that, at any given score point, 65 percent of the students (for a constructed-response question) and 74 percent of the students (for a four-option multiple-choice question) answered that question successfully. For example, in the case of the multiple-choice question that maps at 255 on the scale, fourth-grade students with a score of 255 have a 74 percent chance of answering this question correctly. In other words, out of a sample of 100 students who scored 255, 74 would be expected to have answered this question correctly.	
	Thank You Q7 CR--21% Extensive
337	<b>Interpret major events to provide story's theme</b> Q: What do you think is the theme of the story? Support your answer with details from the story.
<b>323</b>	<b>Advanced</b>
	Thank You Q6 CR--39% Full Comprehension
301	<b>Explain character's motivation based on story actions</b> Q: Why did the boy offer to go to the store? Support your opinion with information from the story.
<b>281</b>	<b>Proficient</b>
	Thank You Q1 MC--71% Correct
268	<b>Recognize appropriate description of character</b> Q: Which of the following best describes the boy's feelings in the story?
	Thank You Q2 CR--64% Full Comprehension
247	<b>Use story details to describe major character</b> Q: Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.
<b>243</b>	<b>Basic</b>
	Thank You Q5 MC--82% Correct
223	<b>Identify motivation for character's actions</b> Q: Why did the boy sit on the far side of the room while Mrs. Jones was making their dinner?



## Discussion of Question Five over “Thank You M’am”

**Question Five:** Why did the boy sit on the far side of the room while Mrs. Jones was making their dinner?

This is on the item map at scale score 223.

**GLE: 3.3.2** Connecting information within a text by making inferences and/or drawing conclusions across texts or other summarized information

What is the learning target? What is another way of restating the Grade Level Expectation?

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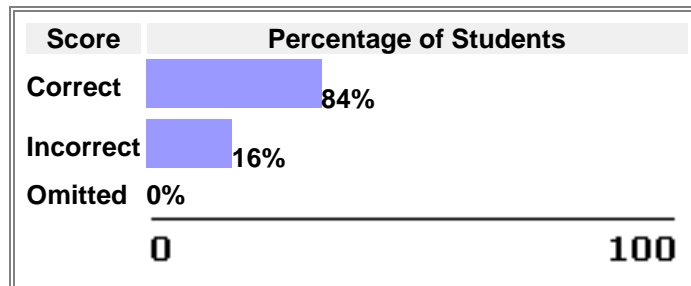
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5. Why did the boy sit on the far side of the room while Mrs. Jones was making their dinner?

- A) He wanted to sit close to Mrs. Jones.
- B) He wanted to show Mrs. Jones he could be trusted.
- C) He wanted to help Mrs. Jones prepare the food.
- D) He wanted to keep an eye on Mrs. Jones.

**KEY: B**

### 2003 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 82% Correct

	A	B *	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	1	84	2	14	#	#

### **What does the item map show about this item?**

Students had to be able to identify motivation for a character's actions. Most students were able to answer this question, which is on the item map at below Basic for the NAEP achievement levels.

### **How do you know your answer is correct?**

Students needed to draw the conclusion that the boy wanted to earn the trust of Mrs. Jones at this point in the story. He was following her directions and had not run away. He sat far away from her purse so she would not have to worry that he would suddenly take her purse and run off. He also deliberately sat where she could keep an eye on him.

The woman did not watch the boy to see if he was going to run now, nor did she watch her purse, which she left behind her on the daybed. But the boy took care to sit on the far side of the room, away from the purse, where he thought she could easily see him out of the corner of her eye if she wanted to. He did not trust the woman not to trust him. And he did not want to be mistrusted now.

### **Why are the other responses wrong or incomplete?**

The most common incorrect response chosen is D: He wanted to keep an eye on Mrs. Jones. The excerpt above shows that he wanted to let Mrs. Jones keep an eye on *him*.

## Discussion of Question Two over “Thank You M’am”

**Question Two:** Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

This is on the item map at scale score 247.

**GLE: 3.7.1** Identifying or describing or making logical predictions about (citing evidence and support from text) plot, setting, character, point of view, and theme

What is the learning target? What is another way of restating the Grade Level Expectation?

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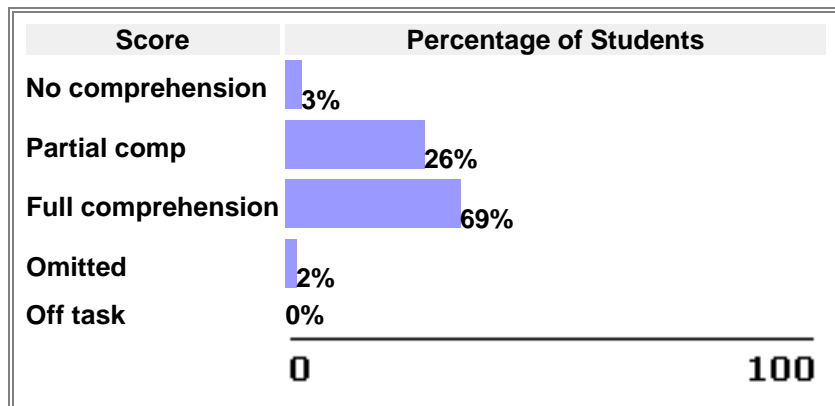


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**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 64% Full Comprehension

### What does the item map show about this item?

Students had to use story details to describe a major character. This maps at the NAEP Basic level.

### How do you know your answer is correct?

Students who demonstrated full comprehension could select any detail about Mrs. Luella Bates Washington Jones but then needed to explain what the reader learned about her character from that detail.

Discuss why these responses showed evidence of full comprehension.

**Evidence of full comprehension - Student Response**

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

Mrs. Luella Bates Washington Jones said, "Pick up my pocketbook, boy, and give it here." I think that that implies she is tough. She almost got pickpocketed, and she has the courage to turn around.

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

She said that she was going to bring him to her house and clean him and feed him. That shows that she is very kind and generous.

**Scorer's Commentary:** Both responses provide something Mrs. Jones says in the story and explain what that tells about her character. The first response focuses on Mrs. Jones' courage, while the second response highlights her kindness in taking the boy home to "clean him and feed him."

**Why are the other responses wrong or incomplete?**

Students who demonstrated only partial comprehension did not discuss what the detail showed about Mrs. Jones. Students who demonstrated little or no evidence drew conclusions or lessons not supported by the text. Discuss why these responses showed evidence of partial or little comprehension.

**Evidence of partial or surface comprehension - Student Response**

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

"NOW TAKE THIS TEN DOLLARS AND BUY YOURSELF SOME BLUE SUEDE SHOES."

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

that she's caring and giving

**Scorer's Commentary:** The first response provides something Mrs. Jones says but does not explain what that tells about her character. The second response provides a general description of Mrs. Jones' character but does not support that generalization with anything she said or did in the story.

**Evidence of little or no comprehension - Student Response**

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

Mrs. Luella was a very mean woman + I don't think she liked kids that much.

2. Choose one thing Mrs. Luella Bates Washington Jones said or did in the story and explain what it tells about her.

Mrs. Luella Bates Washington said in the story was about how rich she was

**Scorer's Commentary:** Both responses provide inaccurate descriptions of Mrs. Jones that are not supported by the story.



## Discussion of Question One over “Thank You M’am”

**Question One:** Which of the following best describes the boy's feelings in the story?  
This is on the item map at scale score 268.

**GLE: 3.7.1** Identifying or describing or making logical predictions about (citing evidence and support from text) plot, setting, character, point of view, and theme

What is the learning target? What is another way of restating the Grade Level Expectation?

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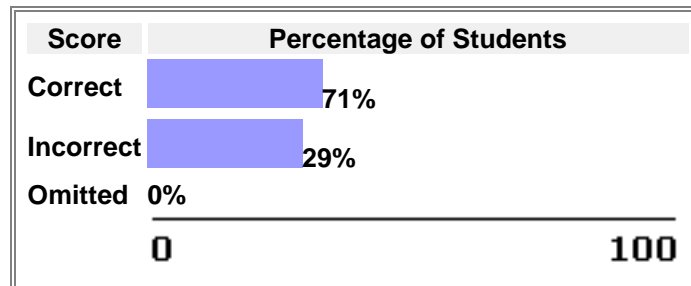
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1. Which of the following best describes the boy's feelings in the story?

- A) Frightened then trusting
- B) Angry then hungry
- C) Greedy then generous
- D) Curious then nervous

**KEY: A**

### 2003 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 71% Correct

	A *	B	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	71	3	17	9	#	#

**What does the item map show about this item?**

Students had to be able to recognize the appropriate description of character.

**How do you know your answer is correct?**

Students should recognize A, Frightened then trusting, as the best response because the text, “dragging the frightened boy behind her,” describes him as frightened. He shows that he later trusts her when he washes his face and does not run out of the room.

**Why are the other responses wrong or incomplete?**

The most common incorrect response chosen is C: Greedy then generous. He could be described as being greedy at first because he tried to steal her purse. Students might interpret his offer to go to the store as generous, although this is more an example of how he wanted to earn her trust and respect. However, this is not the *best* description of his feelings. The second-most-common incorrect response, D: Curious then nervous, is not supported by the text. Curiosity is not presented as one of traits. Also, the description that “sweat popped out on the boy's face and he began to struggle” describes fear more than nervousness.

## Discussion of Question Six over “Thank You M’am”

**Question Six:** Why did the boy offer to go to the store? Support your opinion with information from the story.

This is on the item map at scale score 301.

**GLE: 3.7.1** Identifying or describing or making logical predictions about (citing evidence and support from text) plot, setting, character, point of view, and theme

What is the learning target? What is another way of restating the Grade Level Expectation?

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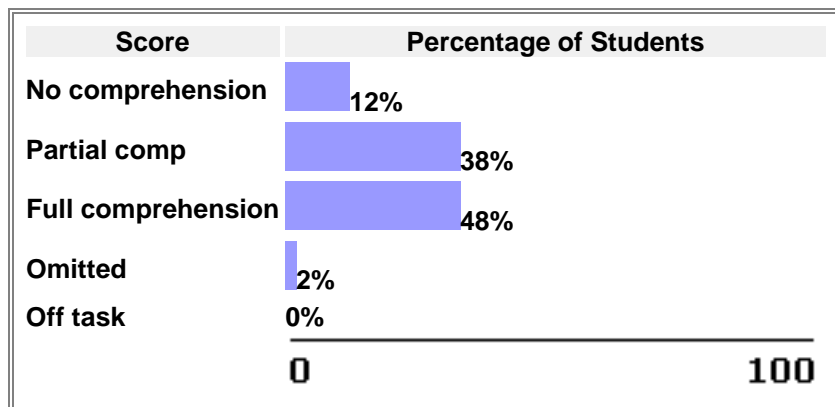


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2003 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 39% Full Comprehension

### What does the item map show about this item?

Students had to explain a character's motivation based on story actions. Students had to support their answers with information from the text. This item maps at the NAEP Proficient level.

### How do you know your answer is correct?

Students who demonstrated full comprehension could form an opinion about the boy's motivation and support that opinion with information from the text. The story does not directly state why the boy made this offer; the reader must infer a reason.

Discuss why these responses showed evidence of full comprehension. Notice that varying opinions can be offered, as long as they are supported by the text.

#### Evidence of full comprehension - Student Response

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

*I think he offered to go to the store to try and get the woman to trust him. When she said that wasn't necessary the boy sat far away from the woman's purse and sat where the woman could watch him if necessary.*

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

*He did this because he wanted to help her out because she was being kind to him and didn't turn him into the police.*

**Scorer's Commentary:** The first response suggests that the boy made the offer in order to gain the woman's trust and supports that interpretation with story evidence about the boy choosing to sit far from her purse within her line of vision. The second response interprets the boy's offer as a way of repaying Mrs. Jones for her kindness.

### Why are the other responses wrong or incomplete?

Students who demonstrated only partial comprehension offered opinions not supported by the text. Discuss why these responses showed evidence of partial or little comprehension.

**Evidence of partial or surface comprehension - Student Response**

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

I think maybe to  
be helpful.

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

The boy wanted to go to the store because he wanted  
to make a run for it. In the story it kept talking  
about him looking at the door.

**Scorer's Commentary:** The first response provides a general reason for the boy's offer, but does not provide evidence from the story as support. The second response provides a reason for the boy's offer that demonstrates an incomplete understanding of the boy's character. By the point in the story when the boy makes the offer, he is free to run but chooses to wash his face and eat with Mrs. Jones.

**Evidence of little or no comprehension - Student Response**

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

because he probably wanted  
some food.

6. Why did the boy offer to go to the store? Support your opinion with information from the story.

because she let him eat and  
gave him money for shoes but  
he said that he would go to the  
store instead.

**Scorer's Commentary:** Both responses provide explanations of the boy's offer that cannot be supported with details from the story.



## Discussion of Question Seven over “Thank You M’am”

**Question Seven:** What do you think is the theme of the story? Support your answer with details from the story.

This is on the item map at scale score 337.

**GLE: 3.9.1** Locating evidence within the text to make connections to an author’s message, theme, or purpose

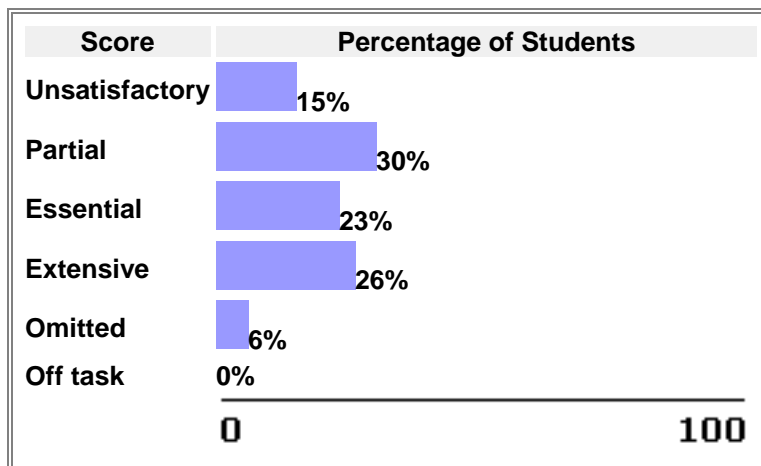
What is the learning target? What is another way of restating the Grade Level Expectation?

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2003 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 21% Extensive

### What does the item map show about this item?

Students had to interpret major events to provide the story's theme. This item maps at the NAEP Advanced level.

### How do you know your answer is correct?

Students who demonstrated extensive comprehension could interpret the events in the story to develop or generalize a theme or message and support that theme with information from the text.

Discuss why these responses showed evidence of extensive comprehension. Notice that different themes can be offered, as long as they are supported by the text.

#### Essential - Student Response

7. What do you think is the theme of the story? Support your answer with details from the story.

~~The think the theme of the story was to show how being kind to someone even after they've done something to you or tried to can make a person better. It can change them if you be kind and teach them good from bad.~~

7. What do you think is the theme of the story? Support your answer with details from the story.

~~you dont know anyone till you talk to them because you cant base anyone on there appearance~~

**Scorer's Commentary:** Both responses discuss a theme that could be supported but do not use details from the story to support that interpretation. The first response interprets the theme as being about kindness and the second focuses on the theme of making judgments from appearances.

### Why are the other responses wrong or incomplete?

Students who demonstrated only partial comprehension developed themes not supported by the text. Discuss why these responses showed evidence of essential, partial or little comprehension.

#### Essential - Student Response

7. What do you think is the theme of the story? Support your answer with details from the story.

~~The think the theme of the story was to show how being kind to someone even after they've done something to you or tried to can make a person better. It can change them if you be kind and teach them good from bad.~~

7. What do you think is the theme of the story? Support your answer with details from the story.

~~you dont know anyone till you talk to them because you cant base anyone on there appearance~~

**Scorer's Commentary:** Both responses discuss a theme that could be supported but do not use details from the story to support that interpretation. The first response interprets the theme as being about kindness and the second focuses on the theme of making judgments from appearances.

Partial - Student Response

7. What do you think is the theme of the story? Support your answer with details from the story.

I think the theme of the story is that you don't have to steal to get what you want in life. Like at the end when she just gave him the 10 dollars for the blue suede shoes and told he could have asked her first, before he tried to take the money.

7. What do you think is the theme of the story? Support your answer with details from the story.

I think the theme of the story is to ask for something before you do something reckless for it. I think this is the theme because it says that Mrs. Luella Bates Washington Jones said that if Roger had asked her for money before trying to steal her pocketbook, she might have given him the money to buy his blue suede shoes.

**Scorer's Commentary:** Both responses repeat a lesson that Mrs. Jones explicitly states in the story, but their discussion of these lessons do not include a theme of the story. The first response focuses on a lesson related to the surface details of not stealing, while the second response repeats the woman's suggestion that it is better "to ask for something" rather than steal.

**Unsatisfactory - Student Response**

7. What do you think is the theme of the story? Support your answer with details from the story.

I think the theme is funny because this boy thought he could get away from this old lady but she ended up treating him like her own son

7. What do you think is the theme of the story? Support your answer with details from the story.

The theme of the story is a boy trying to take a lady's purse. But this lady knows self defense so he doesn't get away! The young boy ends up getting cleaned up with some help. The figure out the reason in which he tried to steal the purse from the lady. And things start to change, they start to connect with one another. And Mrs. Jones saves him from this time from being arrested.

**Scorer's Commentary:** The first response provides some events from the story that do not culminate in a discussion of theme. The second response provides a summary of events in the story, but does not use those events to interpret a theme.



## **Answer Key**

Scoring guides and student responses for all constructed-response questions, shown below with the key “answers will vary,” can be found at

[http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html).

### **Key to “Space Pioneer” Questions**

Question One: Answers Will Vary

Question Two: A

Question Three: C

Question Four: Answers Will Vary

Question Five: D

Question Six: C

Question Seven: B

Question Eight: Answers Will Vary

Question Nine: Answers Will Vary

### **Key To “Thank You M’am” Questions**

Question One: A

Question Two: Answers Will Vary.

Question Three: Answers Will Vary

Question Four: C

Question Five: B

Question Six: Answers Will Vary

Question Seven: Answers Will Vary

Question Eight: A

Question Nine: Answers Will Vary

Question Ten: Answers Will Vary



## Questioning Techniques to Check on Math Misconceptions

NAEP math questions can lend themselves well to a check of student understanding of math concepts. The content each question addresses is clearly identified and each question has plausible distractors that reveal mathematical misconceptions (adding the denominators when addition fractions, for example). Performance data also shows how widespread the mathematical misconceptions were for each question.

### Teacher Help Needed to Overcome Misconceptions

According to research, many students have misconceptions about mathematics--sometimes called "naive theories"--that can turn them into clumsy learners (Mestre, 1989). Teachers can guide students toward constructing the right answers through the use of probing questions. The teacher does not just tell students "the right answer." Instead, the teacher asks probing questions. Students' most important and most effective learning has to do with concepts, not just correct numbers. An active classroom discussion, with the teacher serving as guide, helps students air their misconceptions and, together, truly overcome them.

### Check Understanding of Classroom as a Whole

Question-and-answer sessions can be adapted so teachers can check on the understanding of the class as a whole while the class is still gathered (Leahy, Lyon, Thompson, & Wiliam, 2005). One technique is to use flash cards with the letters of possible answers (A, B, C, or D, for instance) or individual dry erase boards. The teacher can scan the classroom and check for answers that reveal misconceptions. The teacher can then gauge whether the class is ready to move forward and adjust instruction as needed.

NAEP questions have been carefully developed so that wrong choices represent common misconceptions so that the answer will show whether the student really understands the material.

The following pages show how the flash card questioning technique can be used with NAEP questions that assess Alaska's grade 4 numeration Grade Level Expectations and grade 8 functions and relationships GLEs. A quick analysis is given to show the mathematical errors students are making if they choose the wrong response. Teachers can use additional NAEP questions posted at [http://www.eed.state.ak.us/tls/assessment/naep\\_questions.html](http://www.eed.state.ak.us/tls/assessment/naep_questions.html) for other math strands for similar questioning strategies.

### Suggested Procedures for Using Materials in This Section

1. After teaching a concept, such as subtracting fractions with common denominators, ask the class to display their answers to the NAEP question on individual whiteboards or flashcards.
2. Scan the answers.
3. For students who chose the wrong responses, look at the mathematical errors analysis provided for each question to see what the wrong answer reveals about student thinking.
4. Adjust instruction as needed.

### **Arrangement of Contents in This Section**

#### Grade 4 Numeration Questions

- Subtract fractions with common denominators
- Determine number of pieces from cutting wholes into fifths
- Identify solution method that uses multiplication
- Identify correct number sentence
- Given a context, identify a multiple of 6

#### Grade 8 Functions and Relationships Questions

- Determine the 6th term in a pattern
- Determine an equation given a table of x and y values
- Represent even number algebraically
- Represent the mean of three distances algebraically

## Math Misconceptions

**Description of Grade 4 Question:** Subtract fractions with common denominators

**GLE: N-9** [using models, explanations, number lines, or real-life situations **L**] describing or illustrating the process of adding or subtracting fractions with like denominators (2-12)

13.  $\frac{4}{6} - \frac{1}{6} =$

A) 3

B)  $\frac{3}{6}$

C)  $\frac{3}{0}$

D)  $\frac{5}{6}$

### Discussion of Question

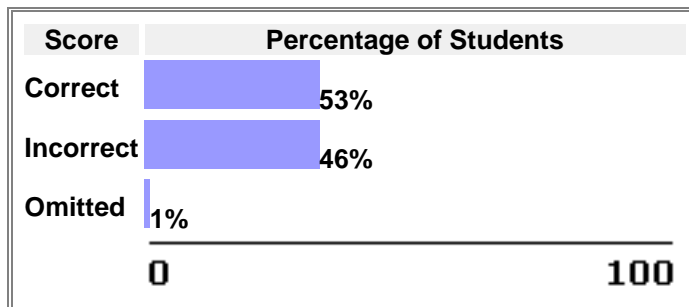
The performance data for this NAEP question shows that many fourth graders do not understand the process of subtracting fractions with common denominators. The performance data on the next page shows that nationally, only 53% (45% of Alaska students) correctly solved this question; 22% of students chose C and 17% chose D. What may be surprising is how many students (17%) added the numerators to solve a subtraction problem.

After teaching the steps for subtracting fractions with common denominators, teachers can use the flash card method to check for understanding. The next page shows the mathematical errors revealed by each wrong response.

Question 13:  $\frac{4}{6} - \frac{1}{6} =$

**KEY: B**

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 45% Correct

	A	B *	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	7	53	22	17	1	#

**Mathematical Error Revealed by Each Wrong Response**

A: Students subtracted numerators and did not include denominator in the answer.

B: Correct answer.

C: Students subtracted both numerators and denominators.

D: Students added numerators but had correct denominator.

## Math Misconceptions

**Description of Grade 4 Question:** Determine number of pieces from cutting wholes into fifths

**GLE: N-9** describing or illustrating the process of adding or subtracting fractions with like denominators (2-12)

14. Luis had two apples and he cut each apple into fifths. How many pieces of apple did he have?

A)  $\frac{2}{5}$

B) 2

C) 5

D) 10

### Discussion of Question

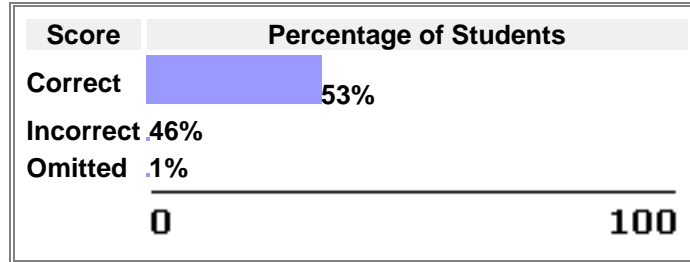
This NAEP question tests whether students have a conceptual understanding of dividing an object into fractions and then adding up those fractions. Students must understand what it means to divide two objects into fifths and then count the total number of pieces.

The majority of students, 53%, chose the correct answer, D, but 36% chose A. The next page shows the mathematical errors revealed by each wrong response.

Question 14: Luis had two apples and he cut each apple into fifths. How many pieces of apple did he have?

**KEY: D**

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 54% Correct

	A	B	C	D *	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	36	3	7	53	1	#

**Mathematical Error Revealed by Each Wrong Response**

A: Students combined number of apples (two) with fifths to choose  $2/5$ .

B. Students chose the number of apples (two).

C. Students chose the number of pieces each apple was divided into (five).

D. Correct answer.

## Math Misconceptions

**Description of Grade 4 Question:** Identify solution method that uses multiplication

**GLE: N-6** [using models, explanations, number lines, or real-life situations **L**] describing or illustrating the processes of multiplication

8. Carla has 12 boxes that each weigh the same amount. What would be a quick way for her to find the total weight of the 12 boxes?
- A) Add 12 to the weight of one of the boxes
  - B) Subtract 12 from the weight of one of the boxes
  - C) Divide the weight of one of the boxes by 12
  - D) Multiply the weight of one of the boxes by 12

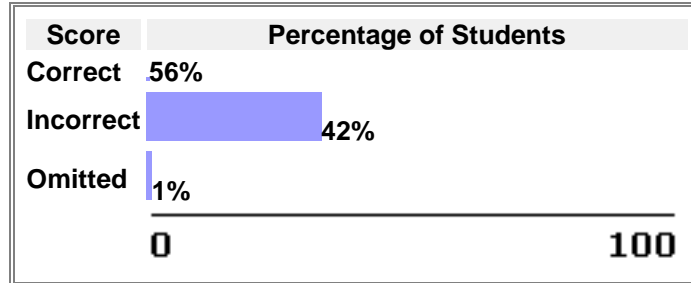
### Discussion of Question

This question asks students to recognize how to calculate of boxes that all weigh the same. The majority of students, 56%, chose the correct answer, but 42% chose incorrect responses. The next page shows the mathematical errors revealed by each wrong response.

Question 8: Carla has 12 boxes that each weigh the same amount. What would be a quick way for her to find the total weight of the 12 boxes?

**KEY: D**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 52% Correct

	A	B	C	D *	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	21	5	16	56	1	#

**Mathematical Error Revealed by Each Wrong Response**

- A: The solution chosen was to add the weight of one box.  
 B: The solution chosen was to subtract the weight of one box.  
 C: The solution chosen was to divide by the weight of one box.  
 D: Correct answer.

## Math Misconceptions

**Description of Grade 4 Question:** Identify correct number sentence

**GLE: N-6** [using models, explanations, number lines, or real-life situations **L**] describing or illustrating the processes of multiplication

9. Sam placed cookies on a cookie sheet to form 2 rows with 6 cookies in each row. Which of the following number sentences best describes this situation?

A)  $2 \times 6 = \square$

B)  $2 + 6 = \square$

C)  $6 \div 2 = \square$

D)  $6 - 2 = \square$

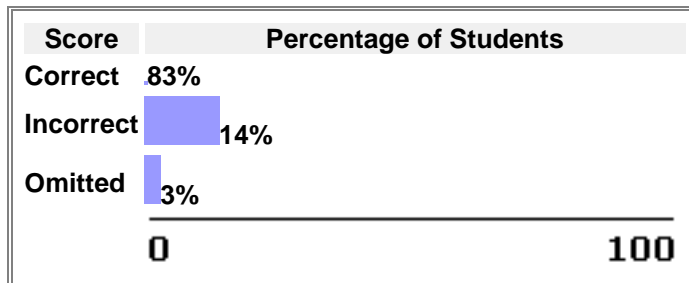
### Discussion of Question

This questions shows that the majority of students, 83%, recognize how to represent a situation with a correct number sentence using multiplication. The next page shows the mathematical errors revealed by each wrong response.

Question 9: Sam placed cookies on a cookie sheet to form 2 rows with 6 cookies in each row. Which of the following number sentences best describes this situation?

**KEY: A**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 79% Correct

	A *	B	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	83	7	6	1	3	#

**Mathematical Error Revealed by Each Wrong Response**

A: Correct answer.

B. Students added the number of rows (two) and number of cookies (six) in one row.

C. Students divided the number of cookies (six) in one row by the number of rows (two).

D. Students subtracted the number of rows (two) from the number of cookies (six) in one row.

## Math Misconceptions

**Description of Grade 4 Question:** Given a context, identify a multiple of 6

**GLE: N-12** identifying or listing factors and multiples of a number

15. Six students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought?
- A) 46
  - B) 48
  - C) 50
  - D) 52

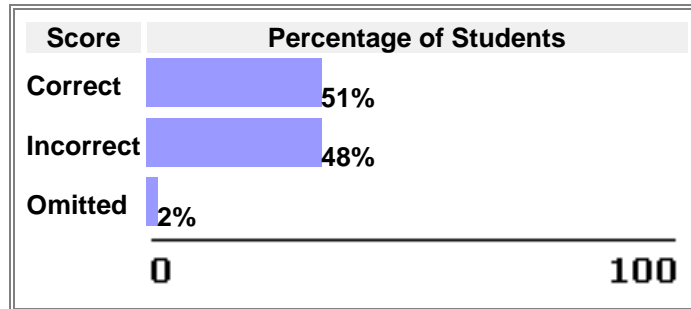
### Discussion of Question

This NAEP question tests whether students can apply knowledge of multiples of six to a situation. Although many fourth graders may know that  $8 \times 6 = 48$ , 48% of students did not answer the following question correctly and 29% chose the first response, perhaps because 46 ends with the number of students (6). The next page shows the mathematical errors revealed by each wrong response.

Question 15: Six students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought?

**KEY: B**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 49% Correct

	A	B *	C	D	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	29	51	12	7	2	1

**Mathematical Error Revealed by Each Wrong Response**

- A. Students may have chosen 46 because it ends with the number of students (six) but 46 is not a multiple of 6.
- B. Correct answer.
- C. Students chose a number that is not a multiple of 6.
- D. Students chose a number that is not a multiple of 6.

## Math Misconceptions

**Description of Grade 8 Question:** Determine the 6th term in a pattern

**GLE: F&R-1** describing or extending patterns (linear) up to the  $n$ th term, represented in tables, sequences, graphs, or in problem situations

1, 9, 25, 49, 81, ...

3. The same rule is applied to each number in the pattern above. What is the 6th number in the pattern?

- A) 40
- B) 100
- C) 121
- D) 144
- E) 169

### Discussion of Question

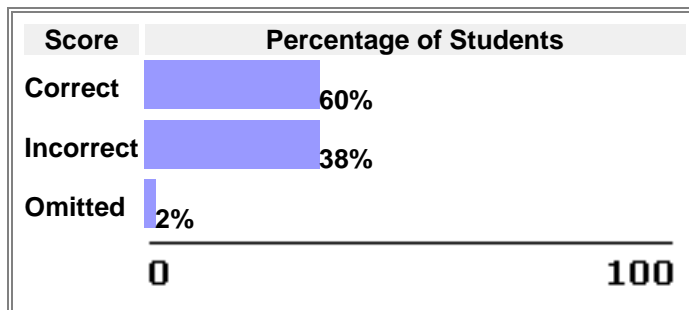
As patterns become more complex, students must be more careful in their computations to arrive at the correct solution. The next page shows the mathematical errors revealed by each wrong response.

1, 9, 25, 49, 81, ...

Question 3: The same rule is applied to each number in the pattern above. What is the 6th number in the pattern?

**KEY: C**

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 59% Correct

	A	B	C *	D	E	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	3	14	60	11	10	2	1

**Mathematical Error Revealed by Each Wrong Response**

- A: Forty was the amount that needed to be added to the fifth term.
- B. Students may have combined the first two terms, one and nine, and added 19 to the fifth term.
- C. Correct answer.
- D. Students may have recognized that the pattern involved using products of eight (144 is divisible by eight).
- E. This is the seventh term, not the sixth.

## Math Misconceptions

**Description of Grade 8 Question:** Determine an equation given a table of x and y values

**GLE: F&R-2** generalizing relationships (linear) using a table of ordered pairs, a graph, or an equation

x	y
0	-1
1	2
2	5
3	8
10	29

6. Which of the following equations represents the relationship between x and y shown in the table above?

A)  $y = x^2 + 1$

B)  $y = x + 1$

C)  $y = 3x - 1$

D)  $y = x^2 - 3$

E)  $y = 3x^2 - 1$

### Discussion of Question

Students must recognize that to generalize a relationship for a table of ordered pairs, the equation must apply to all ordered pairs. The majority of students, 54%, identified the correct equation.

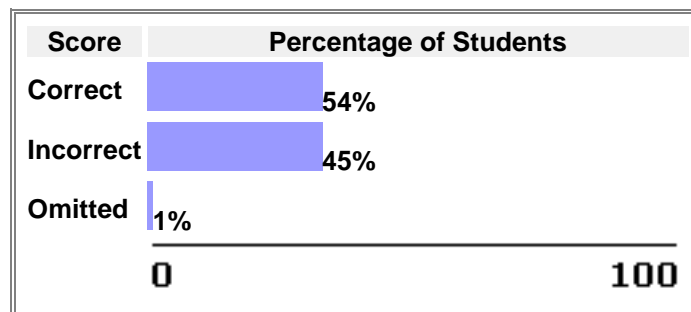
Three of the five possible answers are equations that work for some rows in the table, but not all. The next page shows the mathematical errors revealed by each wrong response.

$x$	$y$
0	-1
1	2
2	5
3	8
10	29

Question 6: Which of the following equations represents the relationship between  $x$  and  $y$  shown in the table above?

**KEY: C**

**2005 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 56% Correct

	A	B	C *	D	E	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	13	15	54	10	8	1	3

**Mathematical Error Revealed by Each Wrong Response**

- A: This equation works for the second and third row.
- B: This equation works for the second row.
- C: Correct answer
- D: This equation does not work for any row.
- E: This equation works for the first and second row.

## Math Misconceptions

**Description of Grade 8 Question:** Represent even number algebraically

**GLE: F&R-5** translating a written phrase to an algebraic expression

8. If  $n$  represents an even number greater than 2, what is the next larger even number?

- A)  $n + 1$
- B)  $2n + 1$
- C)  $2n$
- D)  $n + 2$
- E)  $n^2$

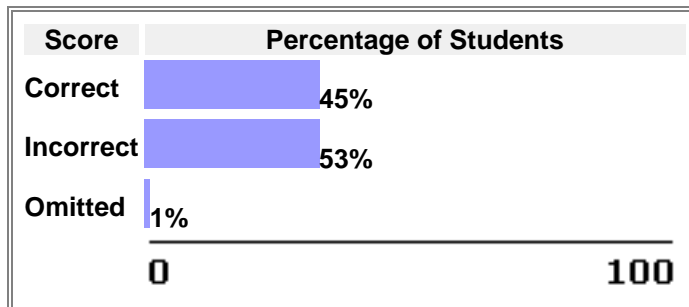
### Discussion of Question

One of the keys to algebraic thinking is to be able to express a situation as an algebraic situation. In this question, 45% of students chose the correct answer; 38% chose an equation that would create an even number, but not the next larger even number. Many students overlooked the fact that to create the next larger even number in this situation, all that needs to be done is to add 2. The next page shows the mathematical errors revealed by each wrong response.

Question 8: If  $n$  represents an even number greater than 2, what is the next larger even number?

**KEY: D**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 47% Correct

	A	B	C	D *	E	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	5	10	19	45	19	1	

**Mathematical Error Revealed by Each Wrong Response**

- A: This expression would create an odd number.
- B: This expression would create an odd number; also,  $2n$  would not create the next larger even number.
- C: This would create an even number, but not the next larger even number.
- D: Correct answer
- E: This would create an even number, but not the next larger even number.

## Math Misconceptions

**Description of Grade 8 Question:** Represent the mean of three distances algebraically

**GLE: F&R-5** translating a written expression to an algebraic expression

9. Tetsu rides his bicycle  $x$  miles the first day,  $y$  miles the second day, and  $z$  miles the third day. Which of the following expressions represents the average number of miles per day that Tetsu travels?

- A)  $x + y + z$
- B)  $xyz$
- C)  $3(x + y + z)$
- D)  $3(xyz)$
- E)  $(x + y + z)/3$

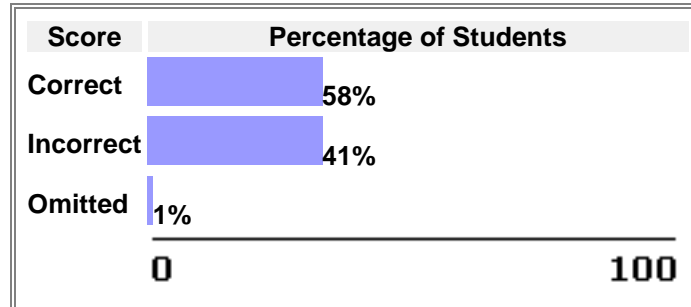
### Discussion of Question

One of the keys to algebraic thinking is to be able to express a situation as an algebraic situation. In this question, 58% of students chose the correct answer; 23% chose the equation that only added the three terms instead of finding the average of the three terms. The next page shows the mathematical errors revealed by each wrong response.

Question 9: Tetsu rides his bicycle  $x$  miles the first day,  $y$  miles the second day, and  $z$  miles the third day. Which of the following expressions represents the average number of miles per day that Tetsu travels?

**KEY: E**

**2003 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Alaska Students: 62% Correct

	A	B	C	D	E *	Omitted	Missing
	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.	Row Pct.
All students	23	4	10	3	58	1	8

**Mathematical Error Revealed by Each Wrong Response**

- A: This equation adds the three terms but does not find the average.
- B: This equation multiplies the three terms.
- C: This equation multiplies the sum of the three terms by three instead of dividing the sum by three.
- D: This equation multiplies the product of all three terms by three.
- E: Correct answer.

## Test Taking Strategies

The best preparation for a test is good instruction (this includes aligning curriculum with standards and making sure students understand those standards), but teaching specific skills for taking tests is also worthwhile. Taking tests occurs throughout our lifetimes—driving tests, licensure or certification tests, employment tests, admissions tests for educational institutions, etc. Learning effective strategies for taking tests can have benefits for students beyond the classroom and help ease the stress many feel in testing situations.

### What Teachers Should Know

Stiggins et al. state that standardized tests “meet the information needs of policy makers and curriculum and program planners, decision makers who need accurate information once a year to make appropriate programmatic decisions on behalf of students,” (2006, p. 387). Educators also need to be informed about standardized tests:

All educators should know the basics about standardized tests used in their school district, especially the state test, for several reasons. First, we might be called upon at any moment to explain a test to someone else, such as a parent. Second, a good understanding of the test helps us know if it is possible to use the results to make modifications to instruction. Finally, we need this information to be informed users of tests and results, and to be able to advocate for the well-being of our students when it comes to the use of these tests. (2006, p. 389)

### Test Specifics

Teachers can find information about the standardized tests administered in Alaska at <http://www.eed.state.ak.us/tls/assessment/>. This includes information about the content covered in each test and about the format of the assessments, such as whether students write in the test booklets or have separate answer sheets and whether test questions are multiple-choice, constructed-response, or both. The Standards Based Assessment practice tests are especially useful for preparing students for the actual assessment administration. There are also guides to various test reports for teachers and parents.

Schmoker points out that state standards and practice tests are great resources:

By focusing on important standards and using tools such as sample tests, teachers can help their students understand what they need to learn—and what they will be tested on. To a great degree, these materials give the game away. And they help us to see that state assessments, however imperfect, are not the enemy. As Grant Wiggins writes, “the problem is not with tests per se, but the failure . . . to be results-focused and data driven” (1994, p. 18). I have found that the more closely teachers study these materials, the less critical they are of standards and testing—and the more apt they are to see that the tests actually guide them toward essential skills in math, reading, and writing. (2006, p. 41)

### **Test-Taking Strategies**

There are general strategies teachers can discuss with their students:

- **Educated guessing**  
Students should know to eliminate the obviously wrong answers. If there are four possible answers, eliminating two possibilities gives students a 50% chance of being correct.
- **Partial credit**  
Attempting an answer may give students partial credit. The NAEP scoring rubrics and the answer keys for the Standards Based Assessment practice tests give many examples of how students can earn partial credit, including for math constructed-response questions.
- **Skimming**  
Students can skim questions beforehand to have an idea of what generally will be asked, so they will know where to locate information in the reading passage instead of rereading the entire passage for each question, a laborious process.
- **Reviewing work**  
Students often do not take advantage of the opportunity to review their answers before turning in a test.
- **Motivational techniques**  
Teachers can encourage their students so they feel secure and confident in a test-taking situation.

### **Using NAEP Questions to Illustrate Some Test Strategies**

NAEP Questions can be used to illustrate the following strategies:

Pacing—knowing when to skip a question and come back to it.

Focusing Instruction Through Use of Standards Based Assessment Data


### **Ethical Test Preparation**

As noted in the introduction to this document, Stiggins et al. point out that ethical test preparation practices do not include “providing students with extended practice on old or parallel forms of the test without guided practice on how to improve” (2006, p. 413).

## Pacing

Knowing when to skip a question and come back to it if time allows is an important skill. Sometimes students agonize over one question instead of moving on, leaving little time to focus on other questions.

NAEP performance data shows how some questions are more difficult than others. Teachers can review the summary of performance data given for each set of NAEP questions aligned to Alaska GLEs at <http://www.eed.state.ak.us/tls/assessment/naep.html> to discuss with students why it makes sense to skip questions after a certain amount of effort. Teachers can explain that students might spend much of their time on a question that only a small percentage of students answer correctly; it is better to move on to the easier questions, making sure more of the test is completed.


<p><b>Grade 4</b> <b>NAEP Estimation and Computation</b> <b>Questions</b></p>	
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Alaska Grade Level Expectation Question Aligns To	Description of NAEP Question	Multiple-Choice or Constructed Response	Percent Correct by Alaska Students	Question Number and Page Number
E&C-3 adding or subtracting three-digit whole numbers	Solve a multi-step story problem	CR	34%	<a href="#">Q 1</a> , P. 2
E&C-3	Add two 3-digit numbers	MC	85%	<a href="#">Q 2</a> , P. 4
E&C-3	Solve a multi-step word problem	MC	77%	<a href="#">Q 3</a> , P. 5
E&C-3	Solve a multi-step word problem	CR	57%	<a href="#">Q 4</a> , P. 6
E&C-3	Subtract two-digit number from three-digit number	CR	72%	<a href="#">Q 5</a> , P. 7
E&C-3	Given a solution, determine the numbers in the problem	CR	45%	<a href="#">Q 6</a> , P. 9
E&C-3	Subtract two-digit numbers to solve a story problem	MC	72%	<a href="#">Q 7</a> , P. 11
E&C-4 multiplying two-digit numbers by single-digit numbers	Solve a multistep word problem	MC	43%	<a href="#">Q 8</a> , P. 12
E&C-4	Solve a problem involving multiples of 2 and 4	CR	71%	<a href="#">Q 9</a> , P. 13
E&C-4	Find two possible correct solutions for problem	CR	31%	<a href="#">Q 10</a> , P. 15

What does the Performance Data show for Question One?

Which questions would students have the best chances of getting correct, based on Performance Data?

What does the Performance Data for this set of questions tell students about why it is important not to get “stuck” on one question?

<p><b>Grade 8</b> <b>NAEP Functions and Relationships</b> <b>Questions</b></p>	
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Alaska Grade Level Expectation Question Aligns To	Description of NAEP Question	Multiple-Choice or Constructed Response	Percent Correct by Alaska Students	Question Number and Page Number
F&R-1 describing or extending patterns (linear) up to the nth term, represented in tables, sequences, graphs, or in problem situations	Complete a letter pattern	CR	69%	<a href="#">Q1</a> , P. 2
F&R-1	Identify the missing figure in a pattern	MC	91%	<a href="#">Q2</a> , P. 3
F&R-1	Determine the 6th term in a pattern	MC	59%	<a href="#">Q3</a> , P. 5
F&R-1	Identify property of graph of a line	MC	48%	<a href="#">Q 4</a> , P. 6
F&R-2 generalizing relationships (linear) using a table of ordered pairs, a graph, or an equation	Use algebra to determine a relationship	MC	80%	<a href="#">Q 5</a> , P. 7
F&R-2	Determine an equation given a table of x and y values	MC	56%	<a href="#">Q 6</a> , P. 8
F&R-3 describing in words how a change in one variable affects remaining variables (how changing the length affects the area of quadrilaterals or volume of a rectangular prism)	Determine effect of increasing the value of one variable	MC	38%	<a href="#">Q 7</a> , P. 9
F&R-5 translating a written phrase to an algebraic expression	Represent even number algebraically	MC	47%	<a href="#">Q 8</a> , P. 10
F&R-5	Represent the mean of three distances algebraically	MC	62%	<a href="#">Q 9</a> , P. 11
F& R-6 solving or identifying solutions to two-step linear equations of the form $ax \pm b = c$ where a, b and c are rational numbers, and $a \neq 0$ , translating a story problem into an equation or similar form, or translating a story problem into an equation of similar form and solving it	Solve problem using informal algebra	CR	7%	<a href="#">Q 10</a> , P. 12
F& R-6	Solve problem involving two linear relationships	CR	26%	<a href="#">Q 11</a> , P. 15

What does the Performance Data show for Question Ten?

Which questions would students have the best chances of getting correct, based on Performance Data?

What does the Performance Data for this set of questions tell students about why it is important not to get “stuck” on one question?

## Focusing Instruction through the Use of Standards Based Assessment Data

Teachers may want to use Alaska Standards Based Assessment data to specifically focus instruction on certain strands. At grade 8, for example, teachers may want to focus on the reading Grade Level Expectations for Analysis of Content and Structure. The Analysis of Content and Structure strand includes this group of reading GLEs: 3.6, Identify conventions of forms of text; 3.7, Analyze story elements; 3.8, Analyze author’s purpose; and 3.9, Support understanding of theme.

One way to do that would be to gather questions that assess those GLEs. The practice tests for the SBAs at <http://www.eed.state.ak.us/tls/assessment/sba.html> include test maps for each grade and content area that shows the GLE each practice question assesses. These test maps can be found at the back of the answer keys for each practice test; the grade 8 reading practice test map is shown below.

SECTION II: Grade 8 Reading Test Map

READING		
Sequence	GLE	Key
Passage: A Century of Flight		
1	3.3.1	B
2	3.1.4	D
3	3.4.2	A
4	3.8.2	D
5	3.1.4	B
6	3.3.2	Extended Constructed Response
Passage: The Birth of a Stone		
7	3.1.3	B
8	3.3.2	A
9	3.6.2	C
10	3.7.3	D
11	3.3.1	D
12	3.4.2	C
13	3.8.2	D
14	3.6.2	Short Constructed Response
Passage: Abigail Powers: A First Lady and Teacher		
15	3.3.1	B
16	3.3.2	D
17	3.3.2	D
18	3.4.1	B
19	3.1.4	C
20	3.3.1	A
21	3.8.2	D

In addition to the Standards Based Assessments practice test questions, released NAEP questions aligned to Alaska GLEs offer additional test questions.

Stiggins et al. suggest these steps for teachers for using released test questions (2006, p. 412).

- Gather a number of test questions intended to cover the learning target so that you can get a broad view of the target. Keep in mind the possibility of narrowing the curriculum if you base instruction only on a single question from the released items.

### Test Taking Strategies--Focusing Instruction

- Generalize about the type of questions you would ask students to have them practice the thinking required to do well on the learning target. Devise questions and “formulas” for questions if they are not already provided.
- Make a plan for how you might provide students additional practice on the learning covered by the test questions.

For instance, teachers can examine NAEP questions that assess the Analysis of Content and Structure and analyze the reasoning or thinking skills required to answer these questions. NAEP performance data can also help provide feedback on the skill levels students need to attain. For example, students who have trouble with items 80% of students answered correctly may need more guidance to develop the reasoning strategies necessary to answer test questions correctly.

Students also need to learn how to answer a variety of questions. Test items on the actual state assessments will be unknown and will be a new context. Students need to learn to transfer their knowledge, to apply what they have learned in new situations. NAEP questions can help students learn to answer questions posed in a variety of contexts.

For example, almost half of grade 4 students answered this question incorrectly:

15. Six students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought?

- A) 46
- B) 48
- C) 50
- D) 52

Most students probably know that  $6 \times 8 = 48$ , but many of them did not know how to use that knowledge to answer this question correctly.

Students need to know that math often is presented in the form of story problems and students need to know how to use their math knowledge to accurately solve these questions. Another example is that instead of asking students to calculate what  $3 \times 4$  is, a problem may state that Alice buys three packets of pencils. Each packet has four pencils. How many pencils did Alice buy?

Wiggins points out the importance of being able to transfer knowledge.

Achieving transferability means you have learned how to adapt prior learning to novel and important situations.

... because the phrasing of the questions is unknown, most of the test questions involve mini-transfer: If you really understand the topic, you should have no trouble handling a question that looks a little different from the questions the teacher asked. If you learned only by rote, however, a novel question will stump you. (p. 50-51, 2006)

## Springboard for Classroom Activities

### Intriguing and “Fun” Questions from NAEP Assessments

Apart from Reading and Math, NAEP also has released questions for Civics, Geography, U.S. History, Science, and Writing. Teachers can use the search feature for NAEP Questions at <http://nces.ed.gov/nationsreportcard/itmrls/> to find hundreds of released NAEP questions that can be used for a variety of purposes. The following shows one block of released science questions from the 2005 grade 4 science assessment. Scoring guides, students responses (for constructed-response questions), and national performance data are provided for each question.

	Subject	Grade	Description	Year/Block
1	Science	4 (8)	Compare heart rates before, during, and after running	2005-4S14
2	Science	4 (8)	Identify process fish use to obtain oxygen	2005-4S14
3	Science	4 (8)	Identify method to compare the effectiveness of fertilizers	2005-4S14
4	Science	4 (8)	Which is salt water?	2005-4S14
5	Science	4 (8)	Sandstone formation	2005-4S14
6	Science	4 (8)	Describe means by which plants prevent erosion	2005-4S14
7	Science	4 (8)	Identify objects that conduct electricity	2005-4S14
8	Science	4	Use a simple circuit to test an item for conductivity	2005-4S14
9	Science	4	Water-holding capacity of bottles	2005-4S14
10	Science	4	Rocks on Earth and Moon	2005-4S14
11	Science	4	Which mineral is hardest?	2005-4S14
12	Science	4	Measuring weight	2005-4S14
13	Science	4	Reproduction of different animals	2005-4S14

Teachers can find many questions that could be used in a variety of ways. The following pages illustrate how a science question, a civics question, and writing prompts could be used in the classroom.

### Science Question

For example, here is a thought-provoking science question from the 2005 grade 8 science assessment:

Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water (from the 2005 grade 8 science assessment).

This question could be used for classroom discussion before starting a unit on properties of water [Alaska grade 8 science GLE: SB1.1 using physical and chemical properties (i.e., density, boiling point, freezing point, conductivity, flammability) to differentiate among materials (i.e., elements, compounds, and mixtures)].

This question could be used to check understanding at the end of a unit on the properties of water. Teachers can share the following scoring guide, student responses, and performance data after discussion. Teachers can also see if any students came up with novel solutions.

## Scoring Guide

### Score & Description

#### Complete

Student response indicates an understanding of how to distinguish fresh water from salt water by describing both a method of determining the difference and a result.

#### Partial

Student response indicates some understanding of the difference between fresh water and salt water but no practical method for doing so is clearly discussed or gives a correct method, or tells what to do, but not the result.

#### Unsatisfactory/Incorrect

Student response shows no understanding of how to distinguish between fresh water and salt water.

### Complete - Student Response

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

One thing she could do is evaporate  
each glass of water. The glass with  
salt water in it should have salt left  
in it when the water has evaporated.

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

put an object in both  
glasses and see which  
one floats. The one in  
the salt water should float.

**Scorer's Commentary:** Both responses describe a correct method for distinguishing fresh water from salt water and include results.

**Partial - Student Response**

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

Evaporate the water

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

Put an object in both of the glass

and see which one floats.

**Scorer's Commentary:** Both responses describe a correct method for distinguishing fresh water from salt water. The first response lacks any reference to results, while the second response includes incomplete results.

**Unsatisfactory/Incorrect - Student Response**

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

the pure water is not foggy

but the salt water is

foggy.

4. Maria has one glass of pure water and one glass of salt water, which look exactly alike. Explain what Maria could do, without tasting the water, to find out which glass contains the salt water.

Maria could look at one

and test it by putting different

objects in the glass to see

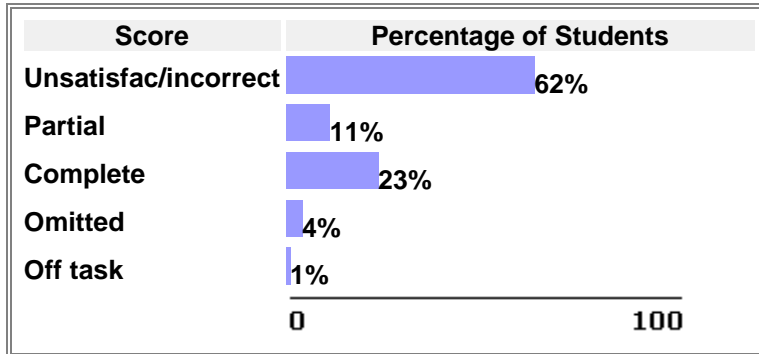
which is the salt and which

is not the salt.

**Scorer's Commentary:** The first response describes a difference in appearance that contradicts the information given in the question. The second response provides neither a complete description of a method nor results.

Science question: salt water/fresh water

**2005 National Performance Results**



### Civics Question

Here is another thought-provoking question that could be used in a prelearning or postlearning situation:

Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution (from the 1998 grade 8 civics assessment).

This question could be a springboard for classroom discussion or activities or it could be a test question.

#### Scoring Guide

Score & Description
<b>Complete</b> Response gives two reasons why it is useful for a country to have a constitution.
<b>Partial</b> Response gives one reason why it is useful for a country to have a constitution.
<b>Unacceptable</b> Response fails to give a reason why it is useful for a country to have a constitution.

Credited responses could include:

1. A constitution sets forth the purposes of government.
2. A constitution describes the way a government is organized and how power is allocated ("how a government works").
3. A constitution defines the relationship between the people and their government.
4. A constitution limits the power of government.
5. A constitution provides political stability and allows for orderly change of leadership and law.
6. A constitution provides information and helps educate people about the principles and structures of government and about their rights. A constitution protects peoples' rights (natural rights accepted as well).
7. A constitution provides rules and laws that tell how a government is organized and runs.
8. Specific examples of rights guaranteed under the U.S. Constitution, provided they are accompanied by a specific reason for a constitution.
9. Can be useful to settle legal arguments in court.
10. Unites a country to form a more cohesive or powerful nation.

Do not accept:

- So we won't have a dictatorship (dictatorial governments can also have constitutions).
- To keep things/people under control (police states can also keep "things" under control).
- To prevent wars with other countries.

### Complete - Student Response

3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

- 1) So that we have rights and we can limit the government's power.
- 2) So we can control how our government is running.

3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

- 1) One reason a constitution is useful is to protect people's rights.
- 2) Another reason why it is useful to have a constitution is so the government doesn't become too powerful.

### Partial - Student Response

3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

- 1) With a constitution, the country can label the rights of the people and states, including freedom of speech, religion, and the press.
- 2) The constitution can give, to the people, the right to bear arms in times of war, and the possession and fire arm.

3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

1) It is useful for countries to have a constitution because it tells the people what rights they have.

2) It is also important for a country to have a constitution or nothing in the world would be strong.

**Unacceptable - Student Response**

3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

1) It could help people realize what they are doing before they do it.

2) Help world peace

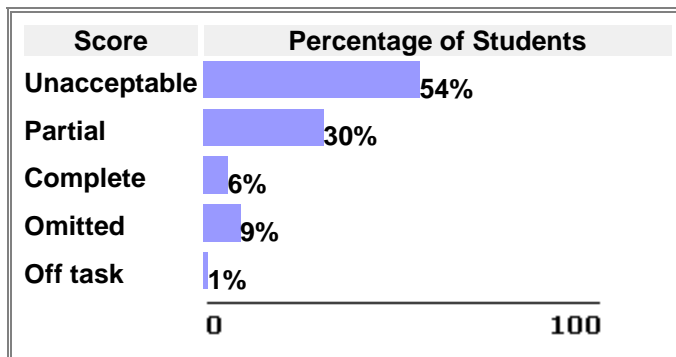
3. Most countries have a constitution. Give two reasons why it can be useful for a country to have a constitution.

1) It would be good for a country to have a constitution because they can control things better.

2) It would also could stop some wars from forming.

Civics question: constitution—reasons why

**1998 National Performance Results**



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

## Writing Prompts

Writing prompts can be difficult to develop, but teachers can use NAEP writing prompts in the classroom. The scoring guides and student examples available at the NAEP Questions web page, <http://nces.ed.gov/nationsreportcard/itmrls/>, could also be used to help students examine the properties of strong writing. After a discussion of the NAEP scoring guides and student writing examples, students could score their own writing.

### Grade 4 Writing Prompt:

Imagine this situation:

Your favorite book is missing from your school library. It might be a book that you like to read over and over again. Or it might be a book that your teacher or parent has read to you. Some of your friends also like to read this book. The school librarian is not sure she wants to buy the book again.

Write a letter to convince your school librarian to buy the book again. In your letter, give lots of reasons why the book should be in your school library.

### Scoring Guide

#### Score & Description

##### Excellent

- Takes a clear position and develops support with well-chosen details, reasons, or examples across the response.
- Well organized; maintains focus.
- Sustains varied sentence structure and exhibits specific word choices.
- Exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

##### Skillful

- Takes a clear position and develops support with some specific details, reasons, or examples.
- Provides some organization of ideas by, for example, using contrast or building to a point.
- Exhibits some variety in sentence structure and exhibits some specific word choices.
- Generally exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

##### Sufficient

- Takes a clear position with support that is clear and generally related to the issue.
- Generally organized.
- Generally has simple sentences and simple word choice; may exhibit uneven control over sentence boundaries.
- Has sentences that consist mostly of complete, clear, distinct thoughts; errors in grammar, spelling, and mechanics generally do not interfere with understanding.

**Uneven**

May be characterized by one or more of the following:

- Takes a position and offers limited or incomplete support; some reasons may not be clear or related to the issue.
- Disorganized or provides a disjointed sequence of information.
- Exhibits uneven control over sentence boundaries and may have some inaccurate word choices.
- Errors in grammar, spelling, and mechanics sometimes interfere with understanding.

**Insufficient**

May be characterized by one or more of the following:

- Takes a position, but provides only minimal support (generalizations or a specific reason or example); OR attempts to take a position but the position is unclear.
- Very disorganized or too brief to detect organization.
- May exhibit little control over sentence boundaries and sentence formation; word choice is inaccurate in much of the response.
- Characterized by misspellings, missing words, incorrect word order. Errors in grammar, spelling, and mechanics may be severe enough to make understanding very difficult in much of the response.

**Unsatisfactory**

May be characterized by one or more of the following:

- Takes a position but provides no support OR attempts to take a position (is on topic) but position is very unclear; may only paraphrase the prompt.
- Exhibits no control over organization.
- Exhibits no control over sentence formation; word choice is inaccurate across the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics severely impede understanding across the response.

## Excellent - Student Response

Dear Mrs. Imagone,

I am quite sorry for this inconvenience, but my favorite book, Gypsy Summer is missing from your collection. We have so many old books on the shelves, that they are falling apart. Gypsy Summer is an educational book, because it has the language of the Gypsies and I think we could use a new book on our shelves. I feel that people may want to read Gypsy Summer. It is quite an interesting book. Again, I hope it is not inconvenient. You can buy it at Half Price Books, Barnes and Noble, and many other bookstores you may know of.

Sincerely,

(student name) 


**Scorer's Commentary:** "Excellent" responses consistently developed clear, focused positions with well-chosen reasons and examples. In this response, the variety of sentences and precise word choices ("I am quite sorry for this inconvenience") increase the strength of the argument.

## Skillful - Student Response

1.

Dear Librarian,

Please get the book back. When I read that book it makes me feel like I am in it, It also makes me happy when I am sad. It could help kids also feel happy when their sad. It could also help them imagine what they want. If you get the book I promise I will help you find the books when you need help. My dad will feel so happy reading the book to me. Think of the happiness you will bring to the kids so please please get the book back I express, how I felt about the book I hope you get it back soon.

Sincerely,  (student name)

**Scorer's Commentary:** "Skillful" persuasive responses offered reasons to persuade the school librarian to reacquire a chosen book, developed those reasons in parts of the response, and provided some (but did not consistently provide) transitions to connect reasons for the students' positions. This response exhibits these features, and also makes a direct address to the intended audience: "Think of the happiness you will bring to the kids..."

Sufficient - Student Response

Dear Librarian,

I'm really sorry about the book I lost, please don't get angry. Please just buy another one please. I really like the book and so do my friends, they even asked to check it out after me. I've checked it out since I came to the school, it's my favorite book. If I don't check it out I don't read unless my mom tells me to. Every kid loves it right? My friends beg for me not to get so they can get it to read. So please, I'm already getting grounded, please.

Sincerely,  
Student

**Scorer's Commentary:** "Sufficient" responses took clear positions and provided clear, though somewhat undeveloped, support. Sentences and word choices were usually simple, and there were occasional errors in sentence structure. The response above attempts to appeal to the reader, but the argument is somewhat undeveloped and the response exhibits some trouble with sentence control.

Uneven - Student Response

Dear Librarian,

I think you should buy the book again because everybody likes it. I like to read it over and over again. Both of my parents like it too. Everybody voted that you should buy that book back. I hope that's a good enough reason. Please buy the book.

Sincerely,  
(student name)

**Scorer's Commentary:** "Uneven" responses took clear positions, but lacked either development or control over sentence structure, or sometimes both. The answer shown above takes a clear persuasive position in response to the prompt, but it offers limited support and is somewhat repetitive.

## Insufficient - Student Response

I want you to by this book again  
because it is a very funny book and  
it has mystereys in it. That's why  
I want you to buy it.

**Scorer's Commentary:** "Insufficient" responses attempted an answer, but provided only a fragment or beginning of a response. Some "Insufficient" responses were very disorganized, while others were difficult to understand due to errors in grammar, spelling, or sentence structure. The response above offers minimal support for its stated position (e.g., "...because it is a very funny book and it has mystereys in it.").

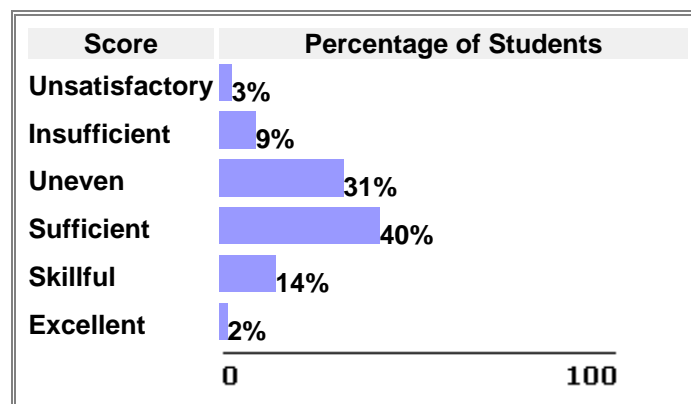
## Unsatisfactory - Student Response

Dear school library.

My book is missing can you order a  
nather one.

**Scorer's Commentary:** "Unsatisfactory" responses attempted an answer, but were very brief, demonstrated no control over sentences, or contained so many errors in grammar and spelling that understanding was severely impeded throughout the response. The response above does no more than request that the librarian replace the author's book.

## National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

### Grade 8 Writing Prompt

Imagine that the article shown below appeared in your local newspaper. Read the article carefully, then write a letter to your principal arguing for or against the proposition that classes at your school should begin and end much later in the day. Be sure to give detailed reasons to support your argument and make it convincing.

## Studies Show Students Need To Sleep Late

### *Night Owls Versus Early Birds*

The *Journal of Medicine* announced today the results of several recent studies on the sleep patterns of teenagers and adults. These studies show that adults and teenagers often have different kinds of sleep patterns because they are at different stages in the human growth cycle.

The study on teenagers' sleep patterns showed that changes in teenagers' growth hormones are related to sleeping patterns. In general, teenagers' energy levels are at their lowest in the morning, between 9 a.m. and 12 noon. To make the most of students' attention span and ability to learn, the study showed that most teenagers need to stay up late at night and to sleep late in the morning. They

called this pattern "the night owl syndrome."

Studies of adults (over 30 years of age) showed the opposite sleep pattern. On average, adults' energy levels were at their lowest at night between 9 p.m. and 12 midnight and at their highest between 6 and 9 a.m. In addition, a study of adults of different ages revealed that as adults get older they seem to wake up earlier in the morning. Thus, adults need to go to sleep earlier in the evening. Researchers called this sleep pattern "the early bird syndrome."

Researchers claim that these studies should be reviewed by all school systems and appropriate changes should be made to the daily school schedule.

### Grade 12 Writing Prompt

Who are our heroes? The media attention given to celebrities suggests that these people are today's heroes. Yet ordinary people perform extraordinary acts of courage every day that go virtually unnoticed. Are these people the real heroes?

Write an essay in which you define heroism and argue who you think our heroes really are—mass-media stars, ordinary people, or maybe both. Be sure to use examples of specific celebrities, other people you have heard or read about, or people from your own community to support your position.



## References

- Chappius, J. (2005). Helping students understand assessment [Electronic version]. *Educational Leadership: Assessment to Promote Learning* 63 (3), 39-43.
- Leahy, S., Lyon, C., Thompson, M., & Wiliam, D. (2005). Classroom assessment: Minute by minute, day by day [Electronic version]. *Educational Leadership: Assessment to Promote Learning* 63 (30), 19-24).
- Mestre, J. (1989). Hispanic and anglo students' misconceptions in mathematics. (ERIC Document Reproduction Service No. ED 313192).
- Rabinowitz, S., Roeber, E., Schroeder, C., & Sheinker, J., with CAS SCASS study group: transitions in assessment from IASA to NCLB (2006). *Creating aligned standards and assessment systems*. Washington, DC: CCSSO.
- Raphael, T. E., & Au, K. H. (2005). QAR: Enhancing comprehension and test taking across grades and content areas. *The Reading Teacher* 59 (3), 206-221.
- Schmoker, M. (2006). *Results now: How we can achieve unprecedented improvements in teaching and learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Stiggins, R. J., Arter, J. A., Chappius, J., & Chappius, S. (2006). *Classroom assessment for student learning: Doing it right—using it well*. Portland, OR: Educational Testing Service.
- Wiggins, G. (2006). Healthier testing made easy [Electronic version]. *Edutopia* April/May.