

ISTEP+ Spring 2013

Indiana Statewide Testing for Educational Progress Plus

Mathematics • English/Language Arts • Science
Grade 6

Web Version



Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.

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**DO
NOT
MARK
ON THIS
PAGE**



If you see this symbol, you may use your reference sheet to help solve the problem.



If you see this symbol, you may use a calculator to solve problems in the test.

NOTE: A correct answer **CANNOT** receive full credit if no work is shown.

Since you may receive partial credit for all problems in this test, it is important to show ALL work in the spaces provided in this book. When you see the words **Show All Work**, be sure to

- **show all the steps needed to solve the problem**
- **make your handwriting clear and easy to read**
- **write the answer on the answer line**

As you complete each problem, remember to

- ☒ **READ** the problem carefully
- ☒ **PLAN** how to solve the problem
- ☒ **SOLVE** the problem showing all steps
- ☒ **CHECK** your work

Session 1: Mathematics



- 1** Yesterday, Linda traveled 128 miles to visit her uncle. Her car used 4 gallons of gasoline.

If Linda's car uses gasoline at the same rate, how many gallons of gasoline will her car use today when she travels 432 miles to visit her grandparents?

Show All Work

Answer _____ gallons

The average cost per gallon of gasoline is \$3, including tax.

What will be the total cost of gasoline, including tax, for Linda to travel to her uncle's house and her grandparent's house?

Show All Work

Answer \$ _____

Go On



2

Jonas had \$187 in his bank account before he received his first paycheck. After depositing his entire first paycheck, Jonas had \$429 in his bank account.

Write an equation that can be used to determine the amount of money (m) that Jonas earned on his first paycheck.

Equation _____

Jonas receives the same amount of money on each paycheck. For the next 5 paychecks, Jonas will spend an average of \$65 of each paycheck and put the rest of his earnings in his bank account.

How much money will Jonas have in his bank account after receiving 5 more paychecks?

Show All Work

Answer \$ _____



3

Mitchell wants to paint his house.

He needs 11 gallons of paint. The paint costs \$15.00 per gallon. The sales tax is \$1.05 per gallon.

What is the least amount of change Mitchell would receive if he pays for the paint using ONLY \$20.00 bills?

Show All Work

Answer \$ _____

Would Mitchell receive the same amount of change if he pays with ONLY \$10.00 bills? Use words, numbers, and/or symbols to explain why or why not.

Show All Work

Go On



Session 1

Would Mitchell receive the same amount of change if he pays with ONLY \$50.00 bills? Use words, numbers, and/or symbols to explain why or why not.

Show All Work

4 A bookstore sells mystery books for \$4 each. The total sales of mystery books this month was \$344.

Write an equation that can be used to determine the number of mystery books (b) the bookstore sold this month.

Equation _____

The bookstore sells biographies for \$3 each and science-fiction books for \$5 each. Use the following information to determine the total sales the store made this month.

- $\frac{1}{2}$ as many biographies were sold as mysteries
- 25 fewer biographies were sold than science-fiction books

What were the total sales for biographies, mysteries, and science-fiction books this month? Do NOT include tax.

Show All Work

Answer \$ _____

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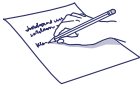


ATTENTION!

Do NOT go on
until you are
told to do so.



**ATTENTION! Please do not leave your
punchouts or reference sheet in this book.**



Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

- how clearly you address the prompt
- how well you organize your ideas
- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

Session 2: English/Language Arts

1

Student Behavior Report

Read the writing prompt below and complete the writing activity.

You and your friends are part of a team that has been asked to write an essay about how students should behave at school. Your group needs to come up with suggestions for rules of student behavior. Here are the guidelines for your essay:

1. Describe how students should behave—the things that students may and may not do.
2. Describe who will enforce the rules.
3. Explain what will happen if the rules are not followed.

Write an essay for your principal. In your essay, include descriptions of the rules for student behavior and explain why these rules are important.

Be sure to include

- a description of the rules and how students should and should not behave
- a description of who will enforce the rules
- an explanation of what will happen if students disobey the rules
- an introduction, a body, and a conclusion to your essay

Go On



Use the blank Prewriting/Planning space below for notes, lists, webs, outlines, or anything else that might help you plan your writing. If you need additional paper for planning, raise your hand and your teacher will give you more paper. **You must write your final draft on the lines beginning at the top of the next page.**

Prewriting/Planning

Go On





Use the Editing Checklist on page 18. Check your essay for correct grammar, spelling, punctuation, and capitalization. **Remember, your essay should be well organized.**

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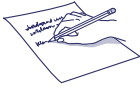
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Session 3: English/Language Arts



Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

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- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

Directions

For Session 3, you will read an article called “Should Schools Start the Day Later?” and complete Numbers 1 through 3. You may look back at the article as often as you like. Then you will complete a writing activity.

Go On



7:02 a.m. 5:40
 4:07 p.m. 2:32 p.m.
 6:20 a.m. 10:30 a.m. 1:15 p.m.

Should Schools Start the Day Later?

"Wake up, sleepy head! Time to go to school!" It is hard to find nine words that teenagers hate to hear more. In the past, many people thought that adolescents were lazy because so many of them have a hard time getting up in the morning. But sleep researchers recently found that teens have good reasons for wanting to stay in bed.

First, the researchers found that teens need at least nine hours of sleep a night—more sleep than younger children need. Second, they found that puberty often changes a teenager's internal clock to a stay-up-late, get-up-late rhythm.

Many teens have a tough time waking up, especially when they start going to high school. Many high schools and even junior highs start classes earlier than elementary schools, sometimes at 7 or 7:15 A.M. Students who live far away must get

up as early as 5 A.M. to catch their buses.

Sleep researchers say this is why so many teenagers doze through their morning classes. They say that schools for upper grades should begin around 9 A.M. at the earliest. However, other people say that schools must start early for other reasons.

With which side do you agree? Read both arguments on the next page, then decide.



Go On 

YES: Let Students Get Some Sleep

Teenagers must get enough sleep if they are to learn. Forcing them to come to school early, then having them sleep through class makes no sense.

When school officials make up schedules, they rarely consider teenagers' sleep patterns. Only a handful of schools have switched to later starting times. Two bills have been introduced in the United States Congress to encourage schools to change to later starting times. But so far, little has changed.

Sleep researchers are not the only people who favor later school hours. Police departments also favor them. Most teen crime occurs between 3 and 6 P.M.—the hours when teens are unsupervised by teachers or parents. If kids were in school then, they could not get into trouble.

Later school hours would give students a chance to learn more and lead healthier lives. It is a change that needs to be made.

NO: Sleep Is Not the Only Factor

Everybody agrees that a good night's sleep is important for teens. But school schedules have to be set up with more than just sleep patterns in mind.

Some parents must drop their children off on the way to work. They will not be able to do that if school starts at 9 A.M. Also, school districts have a limited number of buses to serve elementary, middle, and high school students. By having different starting times for different-level schools, buses can make all the trips necessary to get all students to school.

A later schedule would interfere with many after-school activities. Kids on athletic teams that practice after school would go home in the dark during winter months. Club activities would keep other kids out well past dinner time. Also, what would happen to students who have after-school jobs? Many students must work in order to save for college or help support their families. Later school hours would cut back on the amount of time they would have to earn money.

Go On

1 Research shows that teens need more sleep than younger children. Explain why some high schools still start earlier than elementary schools. Support your answer with details from the article.

2 Explain how the YES and NO arguments are different. Support your answer with details from the article.

3

In what ways does the introductory page of the article seem to support the YES argument that schools should start later? Support your answer with details from the article.

Go On



4

Read the first paragraph of this newspaper review written by a sixth-grade student about his favorite restaurant. Then complete the writing activity that follows.

My Favorite Restaurant

From the outside, Dino’s Pizzeria looks like any other red-brick building in our town. Once inside, however, customers visiting this world-class restaurant will feel like they have suddenly been transported to Italy. The atmosphere is matched only by the delicious taste of the appetizers, pizza, and desserts.

Write a newspaper review of your favorite restaurant or an imaginary restaurant that serves all of your favorite foods. Provide reasons why the reader should visit this restaurant and use vivid language to describe the food.

Use the blank Prewriting/Planning space below for notes, lists, webs, outlines, or anything else that might help you plan your writing. If you need additional paper for planning, raise your hand and your teacher will give you more paper. **You must write your final draft on the lines beginning at the top of the next page.**

Prewriting/Planning

Go On





Use the Editing Checklist on page 28. Check your newspaper review for correct grammar, spelling, punctuation, and capitalization.

Remember, your newspaper review should be well organized.

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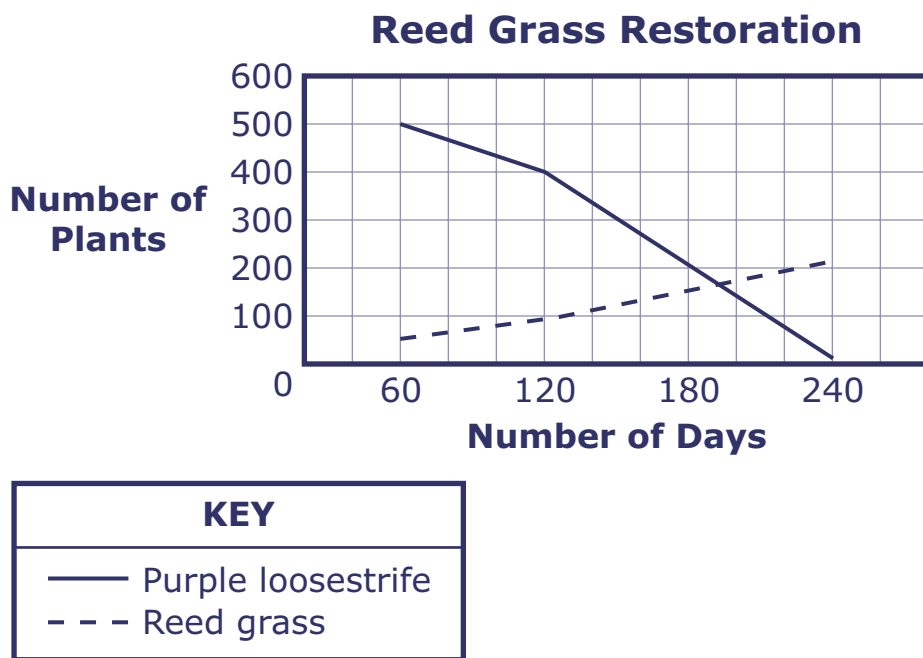
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Session 4: Science

- 1** In a protected wetland the number of native reed grass has decreased. They are being taken over by a non-native weed called purple loosestrife. A biologist decides to pull the purple loosestrife from the protected wetland. She predicts that as the number of purple loosestrife decreases, the number of reed grass will increase, improving the habitat. The results are shown in the line graph below.



Compare the results shown in the graph with the prediction made by the biologist. Be sure to explain in your answer why the biologist's prediction should be accepted or rejected.

The biologist noticed that the population of ducks living in the wetland decreased along with the reed grass population. The ducks build their nests in the reed grass.

Use the information in the graph to predict how the duck population will MOST LIKELY be affected as a result of the biologist removing purple loosestrife from the wetland.



2 What force does the moon put forth that causes tides on Earth?

Describe how the tides would be affected if the moon was larger and had more mass.

Explain why the moon remains in orbit around Earth and does not move out into the solar system.

Go On



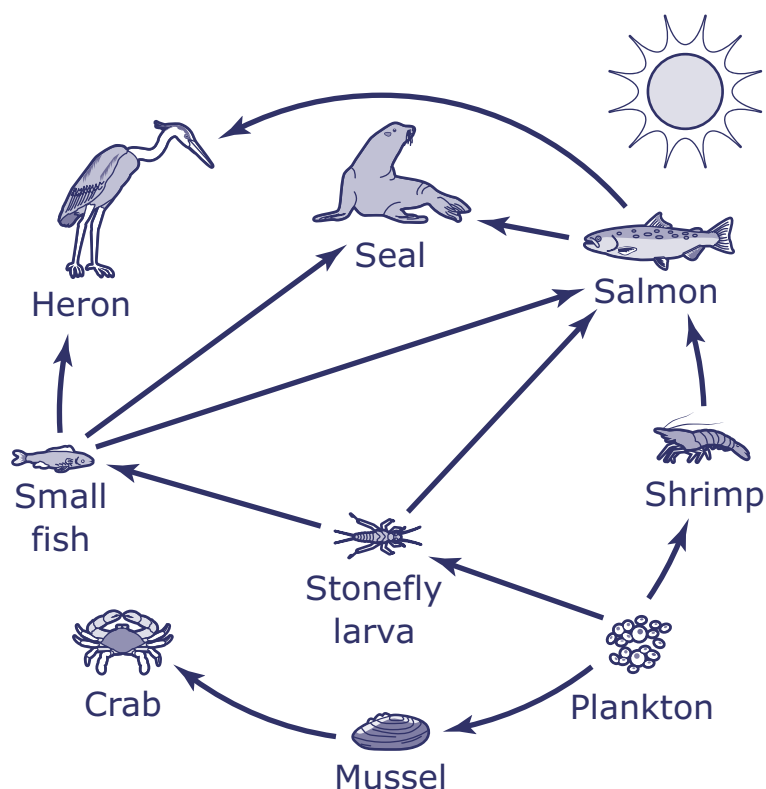
3

A student measures the mass of an open beaker of water and finds it to be 452 grams. The student heats the beaker on a hot plate and allows the water to boil for 10 minutes. After the beaker cools, the student finds the mass of the beaker of water to be 439 grams.

Explain what caused the difference in the mass of the beaker of water before and after boiling.

Predict how the results will be different if the student repeats the experiment using a closed beaker.

4 An ocean food web is shown below.



Which organism in the food web provides energy to all the other organisms in the food web?

Classify the shrimp as a producer or a consumer, and explain your choice based on evidence from the food web.

Session 4

Use evidence from the food web to explain the relationship between the heron and the seal.

Use evidence from the food web to explain the relationship between the salmon and the stonefly larva.

STOP! — STOP! — STOP! — STOP! — STOP! —



Applied Skills Assessment

Mathematics • English/Language Arts • Science

Grade 6