Education Quality and
Accountability Office
EQAO


## Read the selection below and answer the questions that follow it.

## Teen's Recycling Recipe Bags Award

Landfills are clogged with plastic bags that can take up to 1000 years to decompose. Daniel Burd, a 17-year-old high school student from Waterloo, Ontario, has discovered a way to break down the plastic in a matter of months.

Burd's idea won the top prize of $\$ 10000$2 and scholarships at the 2008 Canada-Wide Science Fair in Ottawa.

Burd said his idea literally hit him on the head one day. "Each time I open the closet.. the plastic bags are on the top shelf and they always fall down like an avalanche onto my head." One day he just got tired of it, so he researched what other people are doing with these bags.

Burd discovered that approximately 500 billion plastic bags are used worldwide each year. Many end up in the oceans, where they are ingested by animals that often die as a result.

Burd's hypothesis was that if plastic bags can eventually break down, it should be possible to speed up the process by isolating and concentrating the micro-organism responsible for the decomposition.

To test his hypothesis, Burd took soil samples from the landfill and mixed them with polyethylene (the substance used to make plastic bags) and a solution to encourage bacterial growth. After concentrating the solution and incubating it for 12 weeks, Burd was able to degrade the plastic by 43 percent in six weeks. He figures the bacterial soup would entirely break down plastic bags in three months.

Burd envisions future "recycling stations" 7 acting as large composters for plastic bags. Meantime, he says he hopes to attend a university to study science.


## Multiple-Choice (Record the best or most correct answer on the Student Answer Sheet.)

1 Which paragraph describes the event that happened first?
a paragraph 2
b paragraph 3
C paragraph 4
d paragraph 5
2 What is the meaning of "hypothesis" as used in paragraph 5?
a a recipe
b a problem
c a prediction
d an experiment
3 What is responsible for the decomposition of plastic bags?
a bacteria
b polyethylene
C additional water
d large composters
4 What is the purpose of the information inside the parentheses in paragraph 6 ?
a It provides an explanation.
b It refers to another experiment.
c It presents a step in the experiment.
d It emphasizes the importance of the problem.

5 Why did Burd's experiment win the top prize?
a It could solve a significant problem.
b Burd plans to study science in university.
C It encourages people to reduce their use of plastic bags.
d Burd discovered the bacteria that break down plastic bags.

Turn the page to complete this section.

## Written Answer

6 Explain how Burd's project demonstrates the work of a scientist. Use specific details from the selection and your own ideas to support your answer.
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## Rough Notes

Use the space below for rough notes. Nothing you write in this space will be scored.

## Multiple-Choice (Record the best or most correct answer on the Student Answer Sheet.)

1 Choose the option that best combines all the information in the following sentences.

## I love basketball.

The Bears are my favourite team.
I hope they win the championship this year.
a I love basketball, and I hope the Bears win the championship this year.
b I love basketball and the Bears because I hope they win the championship this year.

C I love basketball and hope the Bears, my favourite team, win the championship this year.
d I love basketball, I love the Bears, my favourite team, I hope they win the championship this year.

2 Which option tells how to make the following sentence correct?

John Reid, the mayor of Kapuskasing wondered how his city would survive the economic downturn.
a Capitalize the word "mayor."
b Add a comma after "Kapuskasing."
C Replace the period with a question mark.
d Use quotation marks around "how his city would survive the economic downturn."

3 Choose the sentence that is written correctly.
a The students is going on the bus.
b Each of the students is going on the bus.
C Two students and their teacher is going on the bus.
d All of the students except for Jim is going on the bus.

4 Choose the sentence that does not belong in the following paragraph.
(1) Eating a variety of nutritious foods is important for good health. (2) Fruits and vegetables provide daily vitamins.
(3) Exercise is an important part of healthy living. (4) Protein from meat, dairy foods or legumes is needed for muscle growth. (5) Fat intake should be limited. (6) A proper diet is important.
a sentence 2
b sentence 3
C sentence 4
d sentence 5

## Writing a News Report

1

## Task:

Write a news report on the next page based on the headline and picture below.

- You will have to make up the facts and information to answer some or all of the following questions: Who? What? Where? When? Why? How?
- You must relate your newspaper report to both the headline and the picture.

Purpose and
Audience:
to report on an event for the readers of a newspaper
Length: The lined space provided for your written work indicates the approximate length of the writing expected.

## Storm Shuts Down Region



Rough Notes
Use the space below for rough notes. Nothing you write in this space
will be scored.

Write your report on the lines provided on the following page.

## Storm Shuts Down Region

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End of Section IX. Continue to Section X.

## Read the selection below and answer the questions that follow it.

The methods of naming Atlantic basin hurricanes have varied over time, but all have encountered problems. Originally, a hurricane in the West Indies took its name from the particular saint who was celebrated on the day on which it occurred. Confusion arose when there was a recurrence. For example, on September 13, 1876, the day of San Felipe, a hurricane hit Puerto Rico. More than 50 years later, another hurricane struck on the same day. It was named "San Felipe II." In 1953 the World Meteorological Organization (WMO) adopted the alphabetical system of women's names, retiring names of significant storms to avoid this duplication. When demands for gender equality arose, the WMO added men's names in 1979. The male-female-male-female alphabetic naming pattern has continued since then. Twenty-one names are designated for each year, skipping the letters $q, u, x, y$ and $z$. Names of major storms such as Hugo and Katrina are retired, and the WMO chooses new names to replace the retired ones. Storm activity increases and decreases in cycles over decades, but today, a new problem has developed. Hurricane activity has increased so much since 1995 that the WMO may need more than 21 names for a season. The 2005 season was the busiest on record, with 26 named storms, including 13 hurricanes. One proposal is to include the Greek alphabet, which adds 24 more names to the WMO roster. This idea is the latest in a series of solutions to the challenge of naming hurricanes.


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## Multiple-Choice (Record the best or most correct answer on the Student Answer Sheet.)

1 In 1979 the method of naming hurricanes changed to respond to
a the need for more names.
b requests for equal treatment.
C confusion with repeated names.
d a desire to use all letters in the alphabet.
2 What factor determines when a hurricane's name is retired?
a the location of its origin
b the time of year it struck
c the first letter of its name
d the degree of its destruction
3 The word "designated" as used in line 10 means
a assigned.
b repeated.
c demanded.
d eliminated.
4 Why are the letters $q, u, x, y$ and $z$ (line 11) shown in italics?
a to highlight their importance
b to indicate the naming pattern
c to distinguish letters from words
d to emphasize their unique sounds

5 The numbers in lines 15 and 16 emphasize the
a uncommon names.
b pattern of unusual names.
C intensity of severe storms.
d increasing frequency of storms.
6 What is the overall organizational structure of this selection?
a present to past
b general to specific
C problem to solution
d least to most important


## Written Answer

7 State a main idea of this selection and provide one specific detail from the selection that supports it.

## Rough Notes

Use the space below for rough notes. Nothing you write in this space will be scored.


[^0]:    Written for EQAO.

