



Maine
Department of
Education

GRADE

5

Maine Science Assessment
Released Items (2022)

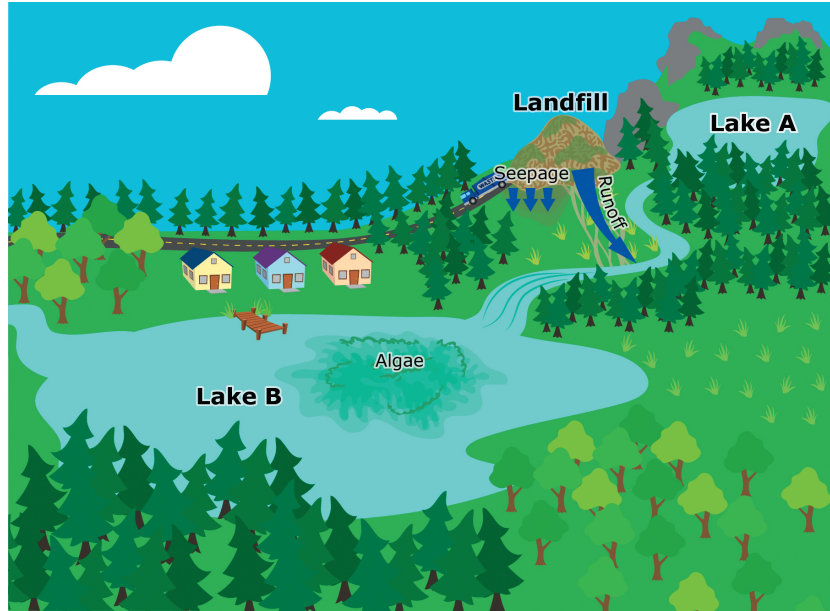


New Meridian

Use the information from Algae Bloom to answer **questions 1–5**.

Algae Bloom

Clair and Rashaun want to swim in Lake B near their homes, but it is covered with algae. However, Lake A, a few kilometers away, has clear water. Clair learns that pollutants from landfills can seep through the soil to reach the groundwater and also enter nearby streams as runoff.



Clair and Rashaun hope to find a solution to the algae problem. They listed their solutions in a table.

Solution	Image
<p>Raised Barrier</p>	
<p>Plastic Liner</p>	
<p>Shallow Channel</p>	

1. Rashaun claims that the landfill is the **most likely** cause of the algae growth.

Which evidence supports this claim?

- (A) The landfill has polluted the vegetation around Lake B.
- (B) The landfill has polluted a stream that flows into Lake A.
- (C) The landfill has polluted the stream that flows into Lake B.
- (D) The landfill has polluted the groundwater that seeps into Lake A.

2. After determining how the pollution gets to Lake B, Clair wonders why pollution causes algae in the lake.

Which statement **best** describes why there are algae in Lake B?

- (A) Algae feed on the waste from human activities that pollute Lake B.
- (B) Lake A has less water and cannot hold as much pollution as Lake B.
- (C) Algae feed on the air pollution from the landfill that is blown into Lake B.
- (D) Lake A receives less pollution because it is further from the landfill than Lake B.

3. Clair and Rashaun want to model how the pollutants make their way from the landfill to the lake.

What is the correct path that the pollutants take?

Enter 1, 2, 3, or 4 into **each** box to show the order of steps in the path, with 1 being the first step and 4 the last.

Lake B

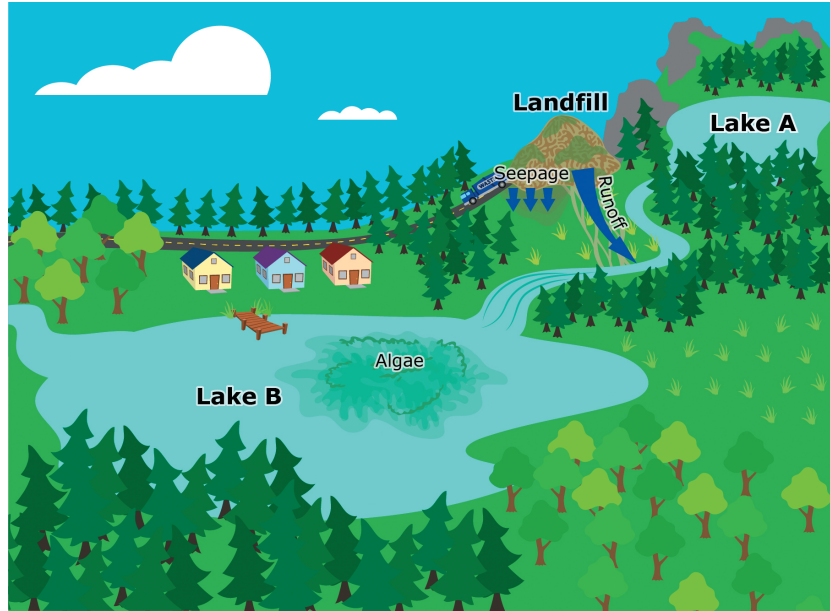
Runoff

Stream

Waste from human activities

Algae Bloom

Clair and Rashaun want to swim in Lake B near their homes, but it is covered with algae. However, Lake A, a few kilometers away, has clear water. Clair learns that pollutants from landfills can seep through the soil to reach the groundwater and also enter nearby streams as runoff.



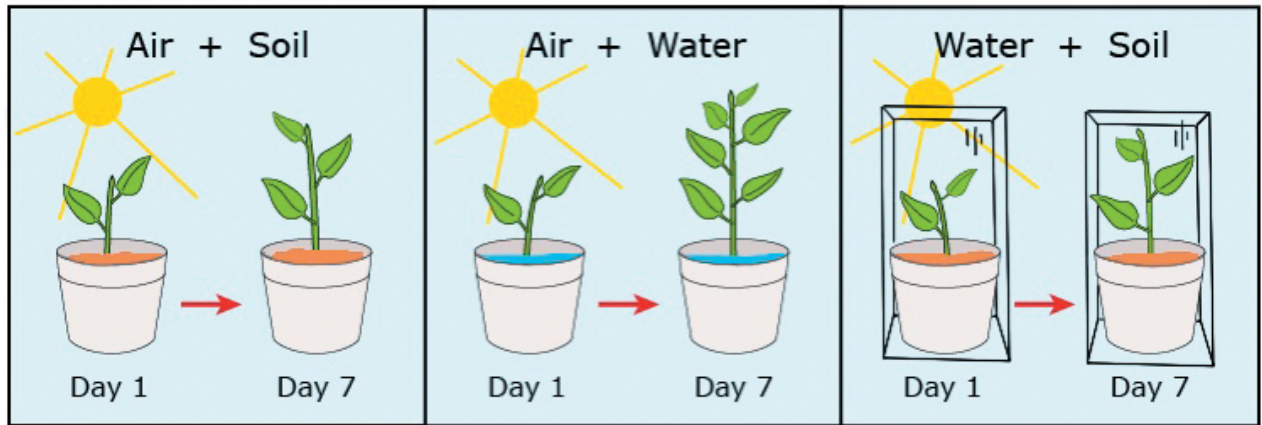
Clair and Rashaun hope to find a solution to the algae problem. They listed their solutions in a table.

Solution	Image
<p>Raised Barrier</p>	
<p>Plastic Liner</p>	
<p>Shallow Channel</p>	

THIS PAGE INTENTIONALLY LEFT BLANK

6. Keaton's family has many plants inside their house and outside in their garden. Keaton sees that some plants grow faster and look healthier than others. This causes Keaton to wonder which factors affect plant growth. He decides to perform an investigation. He places three similar plants in similar pots on the same windowsill. However, he changes some of the conditions under which the plants will grow for the next seven days.

Keaton makes a poster showing the results after seven days.



Keaton uses the data from his investigation to identify the factors that help plants grow.

Which **two** factors help plants grow the most? Choose **two**.

- (A) air
- (B) soil
- (C) sunlight
- (D) water