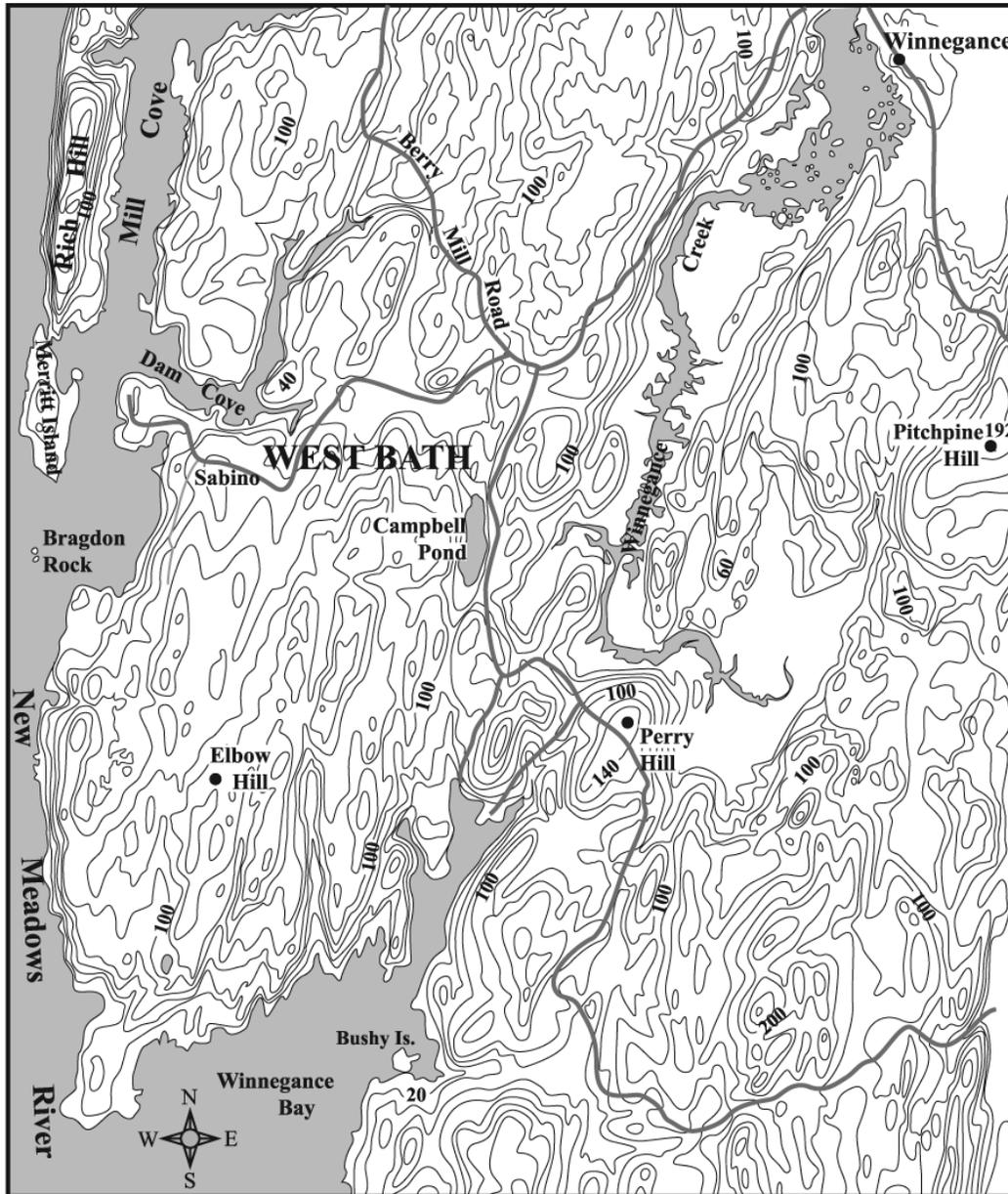




**Science Grade 8  
Scoring Guide for  
Released Item #26  
New Meadows River  
Fall 2005**





The topographic map above shows West Bath, Maine, and surrounding areas. West Bath is only a few miles to the north of the Atlantic Ocean. You could travel to the ocean by going south on the New Meadows River.

**ANSWER THE FOLLOWING CONSTRUCTED-RESPONSE ITEM IN YOUR ANSWER FOLDER.**

**Constructed-Response  
(3 points)**

There is very little land development along the bank of the New Meadows River.

- Explain why this area is **NOT** used for land development.
- Identify two geologic processes that may have contributed to the shape of the riverbank.

**NOTHING WRITTEN IN THIS TEST BOOKLET WILL BE SCORED.**

## Science Rubric for the New Meadows River

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### Acceptable Responses:

Explanation for why the coastline is unsuitable for development

- The area along the bank of the New Meadows River is fairly steep and would be difficult to build on
- The coastline is subject to seasonal flooding
- Land erosion

### Geographic Processes

- Chemical weathering
- Physical weathering by water/wind
- Downslope movement due to gravity
- Formation of mountains
- Uplift
- Folding
- Faulting
- Storm surges (example of erosion)
- Hurricanes (contributing to erosion or weathering)
- Plate tectonics with an explanation (earthquake, volcano eruption)
- Other acceptable responses

### Scoring Guide:

**3 points** The student provides an acceptable explanation for why the coastline is unsuitable for development and identifies two geologic processes that may have contributed to the shape of the coastline.

**2 points** The student provides an acceptable explanation for why the coastline is unsuitable for development and identifies one geologic processes that may have contributed to the shape of the coastline.

**OR**

The student identifies two geologic processes that may have contributed to the shape of the coastline, but fails to explain why it is unsuitable for development.

**1 point** The student provides an acceptable explanation for why the coastline is unsuitable for development, but fails to identify any geologic processes that may have contributed to the shape of the coastline

**OR**

The student identifies one geologic process that may have contributed to the shape of the coastline, but fails to explain why it is unsuitable for development.

**0 points** The student fails to correctly address any aspect of the task.

### Condition codes for unratable papers (zeroes):

A – Off Topic

B – Written in a Language other than English or Illegible

C – Blank or Refusal to Respond

### Anchor Paper 1 – Score Point 3

AI

3

3 points The Land is not used for land development because it is so hilly and there is a lot of change in elevation. One way could have been from glaciers that would carve its way down the earth. Another way might have been from a big river that was once there and washed sediments away and then drained into the ocean.

#### Anchor Paper 1 Score Point 3

The student provides an explanation for why the coastline is unsuitable for development (*it is so hilly and there is a lot of change in elevation*) and identifies two geologic processes that may have contributed to the shape of the coastline: erosion by glacier (*glaciers that would carve its way down the earth*) and erosion by a river (*From a big river that was once there and washed sediments away and then drained into the ocean*).

### Anchor Paper 2 – Score Point 3

A2

③

3 points

The area along New Meadows Pier is not used for land development because the land is very steep and it's too close to the coast. Two geologic processes that may have contributed to the shape of the riverbank are weathering and erosions.

#### Anchor Paper 2 Score Point 3

The student provides an explanation for why the coastline is unsuitable for development (*the land is very steep*) and identifies two geologic processes that may have contributed to the shape of the coastline (*weathering, erosions*). Stating that *“it’s too close to the coast”* is not an acceptable explanation for why the coastline is unsuitable for development.

**Anchor Paper 3 – Score Point 3**

A3

3

3 points

Because if you were to build some thing on the land by it. You will have to put it up high.

There may be a high tide and a house might be in the river the next day.

A glacier must have did this, a mountain slide or a erosion happened.

**Anchor Paper 3  
Score Point 3**

The student provides an explanation for why the coastline is unsuitable for development: “Because if you were to build some thing on the land by it. You will have to put it up high” is sufficient to demonstrate understanding that the coastline is susceptible to flooding. Two geologic processes that may have contributed to the shape of the coastline are identified: landslide (a mountain slide) and “erosion.” The statement “A glacier must have did this” does not explain what the glacier did to affect the shape of the coastline and is not accepted as a geologic process.

### Anchor Paper 4 – Score Point 2

AH

2

3 points The bank along New Meadows River is too steep to build on so there is little land development. Rain from the surrounding area may have carved out the river or possibly an iceberg from the north may have carved the land after the Ice Age.

#### Anchor Paper 4 Score Point 2

The student provides an explanation for why the coastline is unsuitable for development (*The bank along New Meadows River is too steep*) and identifies one geologic process that may have contributed to the shape of the coastline as erosion by rain (*Rains from the surrounding area may have carved out the river*). The statement “*an iceberg from the north may have carved the land*” demonstrates a misunderstanding of the difference between icebergs and glaciers is not accepted as a geologic process.

### Anchor Paper 5 – Score Point 2

A5

(2)

3 points

Because people need to worry  
about floods and other problems

Erosion and wind/water

#### Anchor Paper 5 Score Point 2

The student provides an explanation for why the coastline is unsuitable for development (*Because people need to worry about floods*) and identifies one geologic process that may have contributed to the shape of the coastline (*Erosion*). Writing “wind/water” does not identify a process because it does not explain how wind or water would affect the shape of the coastline.

# Anchor Paper 6 – Score Point 2

A6

2

3 points New Meadows river is not used for land development because the ground level is not flat.

2 geological processes that may have contributed to the shape of the rock could be Big waves or an earthquake

## Anchor Paper 6 Score Point 2

The student provides an explanation for why the coastline is unsuitable for development (*the ground level is not flat*) and identifies one geologic process that may have contributed to the shape of the coastline (*earthquake*). “Big waves” is not a process because it does not explain how large waves would affect the shape of the coastline.

### Anchor Paper 7 – Score Point 1

A7

①

3 points

This land is not used for development for crops because the land is too close to the river. This land can be flooded all of the crops or anything this on the land.

#### Anchor Paper 7 Score Point 1

The student provides an explanation for why the coastline is unsuitable for development (*This land can be flooded*) but fails to identify any geologic processes that may have contributed to the shape of the coastline.

**Anchor Paper 8 – Score Point 1**

A8

①

3 points The New Meadows River is not used for land development because of its elevation.

- Erosion might have contributed to the shape of the river bank.
- The Theory of Plate Tectonics might have contributed to the shape of the river bank.
- Friction might have contributed to the shape of the river bank.

**Anchor Paper 8  
Score Point 1**

The student identifies one geologic process that may have contributed to the shape of the coastline (*Erosion*), but fails to explain why it is unsuitable for development. Writing “its elevation” does not sufficiently describe the steepness of the riverbank or suggest susceptibility to flooding, so is not accepted as an explanation for why the coastline is unsuitable for development. “The Theory of Plate Tectonics” is not a process and “Friction,” without a description of what creates the friction, is too vague to be considered a separate process from erosion, which was already given.

# Anchor Paper 9 – Score Point 1

A9

①

3 points New Meadows river probably isn't used for land development because of the elevation in the land. Two geologic processes are; icebergs carving the land, and maybe flooding, causing the formation of the riverbank.

## Anchor Paper 9 Score Point 1

The student identifies one geologic process that may have contributed to the shape of the coastline (*flooding*) but fails to explain why it is unsuitable for development. Stating “*because of the elevation in the land*” does not sufficiently describe the steepness of the riverbank nor suggest susceptibility to flooding and is not accepted as an explanation for why the coastline is unsuitable for development. The statement “*icebergs carving the land*” demonstrates a misunderstanding of the difference between icebergs and glaciers and is not accepted as a geologic process.

**Anchor Paper 10 – Score Point 0**

A10

Ø

3 points There are many reasons why New Meadows River is not used for land development.

- There is high elevation that prevents things to grow there.
- Two geological process that may have formed the River such as:
  - the mountains or volcanoes that shaped the land.
  - Also how the River flows through some of the land.

**Anchor Paper 10  
Score Point 0**

The student fails to correctly address any aspect of the task. “There is high elevation” is not an accepted explanation for why the coastline is unsuitable for development. Writing “the mountains or volcanoes that shaped the land” is not sufficient to explain that mountain formation or volcanic eruption would affect the shape of the coastline. Also given is “how the River flows through some of the land,” which not explain how the river would affect the shape of the coastline and is not accepted as a geologic process.

### Anchor Paper 11 – Score Point 0

All

Ø

3 points Because it is yet to small  
~~to~~ do any thing with once it  
gets bigger it will become used  
for land development. The water  
may have shaped it as well as  
the weather

#### Anchor Paper 11 Score Point 0

The student fails to correctly address any aspect of the task. “Because it is yet to small” is not an accepted explanation for why the coastline is unsuitable for development. “The water may have shaped it as well as the weather” does not explain how water or weather would affect the shape of the coastline and is not accepted as a geologic process.

Anchor Paper 12 – Score Point 0

A12

∅

3 points

This area is not used for land development along the bank of the new meadows river because animals as well as people must live and in that river there must be lots of sea critters.

Two geologic processes that may have contributed to the shape of the river banks

- Bragdon Rock
- Winnegance Bay

Anchor Paper 12  
Score Point 0

The student fails to correctly address any aspect of the task. “because animals as well as People must live and in that river there must be lots of sea critters” is not an accepted explanation for why the coastline is unsuitable for development. “Bragdon Rock” and “Winnegance Bay” are not geologic processes.