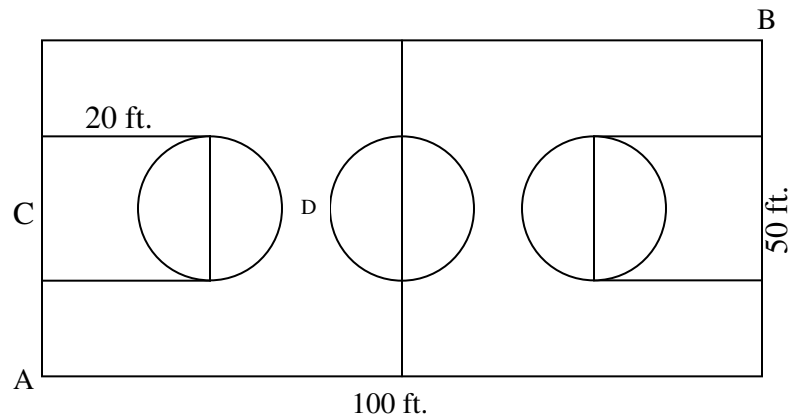


Open Response Bank:  
**Middle School Math**

**1:**

Rob and his teams on Wayfield Middle School's basketball team are warming up for their next game. Part of the warm-ups requires the team to run diagonal from Corner A to Corner B of the gym.



A. How far does Rob run if he runs from Corner A to Corner B? Show your work.

B. If Rob runs from Corner A to Corner B and back to Corner A 3 times, how far does Rob run? Explain your answer.

C. Suppose the diameter of the circles on the court are all 14 ft. How far would Rob run if he ran from Point C to the top of the circle, point D? Explain your steps and how you solved the problem.

Submitted by: Kristin Timperman, Thomas Reece, Jessica Ballinger, Jeanine Campbell, Kristie Richie, Lori Young

**Scoring Guide**

<b>4</b>	Diagram should be drawn labeling distances from Point A to Point B as well as a distance from Point C to Point D. Students are required to use the Pythagorean Theorem to calculate the diagonal from Point A to Point B. Since the value for the diagonal will be an irrational number students will be given the option to round to the nearest hundredths place or truncate after the hundredths place. Correct units of measure must accompany the determined distance. Students must explain why it was essential to use the Pythagorean Theorem to figure the distance of the diagonal (hypotenuse).
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After computing the correct value for the hypotenuse students need to multiply this number by six to find the total distance that Rob runs in Part B. Another option is for the students to add the hypotenuse six times or students can find the value of one lap (A to B and back to A) and multiply by three. Students must explain that Rob runs three laps in this exercise.

Students should label all radii at seven feet. The distance from mid-court to the end-line should also be marked. To calculate the distance from Point C to Point D students should take the measurement of half the court minus the radius of one circle. The students could also add the distance from the end-line to the free-throw line plus the radius of a circle plus the distance from the top of the circle at the free-throw line to the bottom of the circle at mid-court. The reasoning behind their computation must be explained.

## **Middle School Social Studies**

### **1:**

#### Causes of American Revolution Open Response

“No taxation without representation” was a phrase used by American colonists to express criticism of the way the British governed the colonies. Describe two ways the American colonists conflicted with the British government on this issue.

(This is a single component question. Students could choose two from the following: Sugar Act, Stamp Act, Townshend Acts, Tea Act, or Coercive Acts. Students should adequately describe the act and the conflict it caused.)

Submitted by Becky Humphrey

### **2:**

#### Industrial Revolution

Core Content: History-SS-M-5.2.3

Essential Question: What were the effects of the Industrial Revolution?

The Industrial Revolution changed the way Americans lived their everyday lives. While many of these changes benefited the United States, many of them did not.

a. Explain ONE advantage and ONE disadvantage that came from the Industrial Revolution.

b. Decide whether you would have supported or opposed the Industrial Revolution based on the advantages and disadvantages. Use specific evidence from this time period to support your answer.

Submitted by Sarah Riley

## Middle School Science

**1:**

**Core Content:** *Science:* SC-M-2.3.3

**Open Response Question Style:** Student Choice

Most objects in the solar system are in regular and predicable motion.

- A. **Analyze** the relationship between the sun, moon, and earth.
- B. **Describe** how these relationships affect **TWO** of the following phenomena:
- the day
  - the year
  - the phases of the moon
  - the solar eclipse
  - the lunar eclipse

Submitted by Elizabeth “Libby” Haas, Elisabeth “Paige” Sellards, Kelda Golden, Janyna Lorraine

**Rubric:**

*Score 4*

- student follows all directions and answers all parts of the question clearly and accurately
- student uses exceptional detail, including important vocabulary words
- student analyses and descriptions are insightful, clear, and accurate

*Score 3*

- student follows all directions and answers all parts of the question
- student uses some detail, including minimal vocabulary words
- student analyses and descriptions are adequate

*Score 2*

- student follows some directions and answers
- student uses little detail
- student analyses and descriptions are unclear and/or inaccurate

*Score 1*

- student’s response is minimal and unsupported

**2:**

You have a mixture of sugar, sand, and iron filings in water. Each of these substances have their own physical properties.

- A. List 2 physical properties of each substance in the mixture.
- B. Design an experiment to separate 2 of the substances out of the mixture.

Submitted by Larry Green, Viren Patel, and Paula Jones.

Score 4	Student supplies a response that would successfully separate two of the four components of the original mixture. Student lists two physical properties for all four components in the mixture.
Score 3	Student supplies a response that would successfully separate one of the components of the original mixture. Student lists two physical properties for three of the components in the mixture.
Score 2	Student supplies a response that would successfully separate one of the four components of the original mixture. Student lists two physical properties for two of the components in the mixture.
Level 1	Student supplies a response that would successfully separate one of the four components of the original mixture. Student lists two physical properties for one of the components in the mixture.
Level 0	Student supplies a response that would not successfully separate any of the four components of the original mixture. Student did not provide any physical properties for the substances in the mixture.
Blank	No response.

## Middle School Language Arts

### 1:

American culture has been enriched over the years by borrowing from other cultures. Using the myths we have studied in class, explain two ways in which American culture (language, art, and literature) has been influenced by mythology. Use specific examples.

Submitted by Amanda Gary

### 2:

In *Roll of Thunder, Hear My Cry*, the Logan family endures segregation.

A. List two examples of segregation faced by Cassie Logan.

B. Explain how Cassie reacts to the issues of segregation. Cite specific examples from the text.

C. Evaluate whether Cassie's reactions are justified or not. Cite specific examples from the text.

Submitted by Michelle Chapman