Default Question Block

Grade 5 Form B
Task #1 Something Smells

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Student State ID

Use the information provided in any part of this task to answer the questions.

Students are taking a tour of a local garden, which has many different plant species. Many plants are blooming, and students can smell the flowers. The students also smell something bad. The bad smell becomes stronger as they move through the garden. The tour stops in front of a large purple flower called a carrion flower shown in the picture. It smells like rotted meat. As they continue the tour shown in the garden map, they notice the smell is not as strong.
Question 1

Scientists can determine the amount of scent in a given area. The graph shows data collected for the amount of scent detected at three distances from the carrion flower.
Use the data to predict the strength of the scent at different distances from the carrion flower by moving each word into the diagram.

Drag one item into each box that matches the box in the diagram.

**Items**
- Very Strong Scent
- Strong Scent
- Weak Scent

**Top**

**Middle**
Question 2

This Question has 3 parts. Answer Part A, then Part B, then Part C.

Part A
Which model BEST represents the scent detected 5 meters from the carrion flower?

- [ ] Model A
- [ ] Model B
- [ ] Model C

Part B
Use the models and data to make a claim about the scent particles.
The particles of the scent are a ______________________
Part C

Which evidence supports the answer to Part B.

- A) The air particles are in a tight pattern, and the scent particles are spread out.
- B) The air particles are in a random pattern, and the scent particles are spread out.
- C) The air particles are in a tight pattern, and the scent particles are close together.
- D) The air particles are in a random pattern, and the scent particles are close together.

**Question 3**

Which behavior of the scent particles explains why the students can smell the carrion flower from far away?

- A) The scent particles stay near the flower.
- B) The scent particles travel back into the flower.
- C) The scent particles move freely away from the flower.
- D) The scent particles flow near the ground around the flower.

**Question 4**

Which model BEST represents the behavior of scent particles in an air sample?

A) The air particles are in a tight pattern, and the scent particles are spread out.  
B) The air particles are in a random pattern, and the scent particles are spread out.  
C) The air particles are in a tight pattern, and the scent particles are close together.  
D) The air particles are in a random pattern, and the scent particles are close together.

**Question 5**
Construct an explanation citing evidence from the text, graph, and models to explain why the students can smell the carrion flower without seeing it. Include why the strength of the scent varies on the tour.

Student Feedback

Feedback Question #1

How interesting was the task you just completed?

1 star is not interesting and 5 stars is very interesting.

Feedback Question #2

How difficult was the task as a whole?

1 star is not difficult and 5 stars is very difficult.

Feedback Question #3

Please rate the difficulty to understand how to respond to each question.

1 star is not difficult and 5 stars is very difficult.

Question 1
Grade 5 Form B
Task #2 TV Trouble

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Use the information provided in any part of this task to answer the questions.

A Nebraska student is watching a movie on TV at 9 a.m. one fall morning. At about 11 a.m, the student is having a hard time seeing the movie on the TV screen. Why is it hard to see the movie on the TV screen?

Question 1

What causes the shadow on the TV screen to disappear later that same morning?
A Nebraska student is watching a movie on TV at 9 a.m. one fall morning. At about 11 a.m, the student is having a hard time seeing the movie on the TV screen. Why is it hard to see the movie on the TV screen?

Question 2

Select the model that explains why the Sun’s position in the sky changes between 9:00 a.m. and 11:00 a.m.?
Question 3

Which object could be placed on the table to help the student see the movie better on the TV screen at 11:00 a.m.?

- a ficus plant
- a lamp with a narrow shade
Three months later, in winter, the student is watching TV at 11:00 a.m. and having trouble seeing the screen, but the student can see the screen clearly in the afternoon. The student wonders what will happen at 11:00 a.m. in the spring.

**Question 4**

Use the image to predict what will happen to the shadows in the room from winter to spring?

- A) The shadows will be wider.
- B) The shadows will be longer.
- C) The shadows will be shorter.
- D) The shadows will stay the same.

**Question 5**

**The Sun’s Path during the Year**
The Sun's angle is measured from the horizon, which is the line where Earth's surface and the sky meet. Using the model, what is the relationship between the season and the angle between the Sun and the horizon?

- A) From spring to fall, the angle between the Sun and the horizon at 11:00 a.m. increases.
- B) From fall to winter, the angle between the Sun and the horizon at 11:00 a.m. increases.
- C) From winter to spring, the angle between the Sun and the horizon at 11:00 a.m. decreases.
- D) From summer to winter, the angle between the Sun and the horizon at 11:00 a.m. decreases.

**Question 6**

What is causing the angle between the Sun and the horizon to change from fall to winter?
Question 7

Which model BEST represents the Sun’s positions at 9:00 a.m. for summer and for winter in Nebraska?

- ![Diagram A]
- ![Diagram B]
- ![Diagram C]
- ![Diagram D]

Question 8

Predict the shadow length of the objects in the room at 9:00 in the summer and in the winter to explain why it is difficult to see the TV screen at different times of the year.

- [ ] A) The shadows are the same in summer and winter.
- [ ] B) The shadows in winter are longer than shadows in summer.
- [ ] C) The shadows in summer are longer than shadows in winter.
- [ ] D) The shadows in summer are shorter than shadows in the winter.

Student Feedback

Feedback Question #1

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Feedback Question #2

How difficult was the task as a whole?

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Feedback Question #3

Please rate the difficulty to understand how to respond to each question.

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Question 1
Question 2
Question 3
Question 4
Question 5
Question 6
Question 7
Question 8

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