

Grade 6 Unit Practice Test

Science

Evidence and
Investigation

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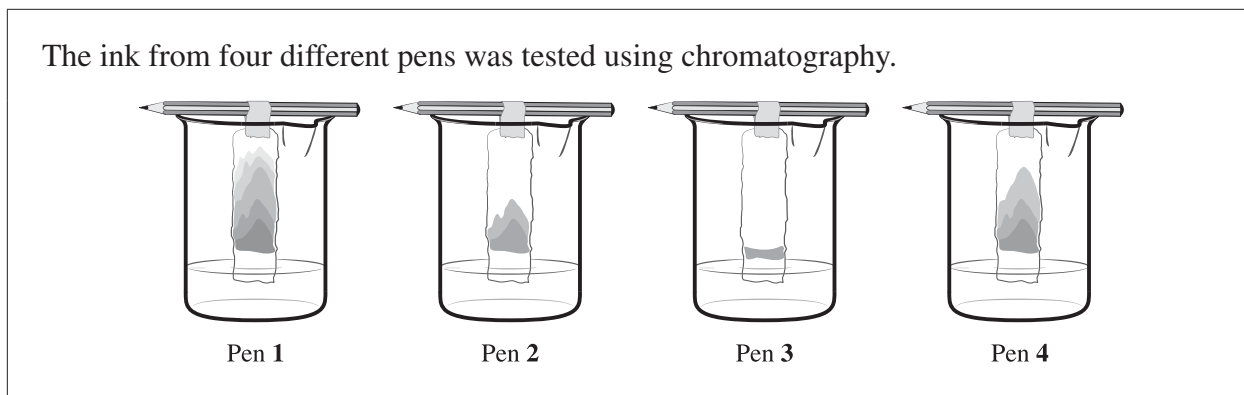
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Use the following information to answer question 1.

| Characteristics of Four Tracks Left by the Same Student | | |
|---|--|-----------------------|
| Track | Description of Imprint | Length of Stride (cm) |
| I | Heel and toe of the shoe clearly distinguishable | 23 |
| II | Heel and toe of the shoe clearly distinguishable | 52 |
| III | Only the toe of the shoe distinguishable | 23 |
| IV | Only the toe of the shoe distinguishable | 52 |

1. Which track was **most likely** made by the student when he was walking?
- A. I
 - B. II
 - C. III
 - D. IV
-

Use the following information to answer question 2.

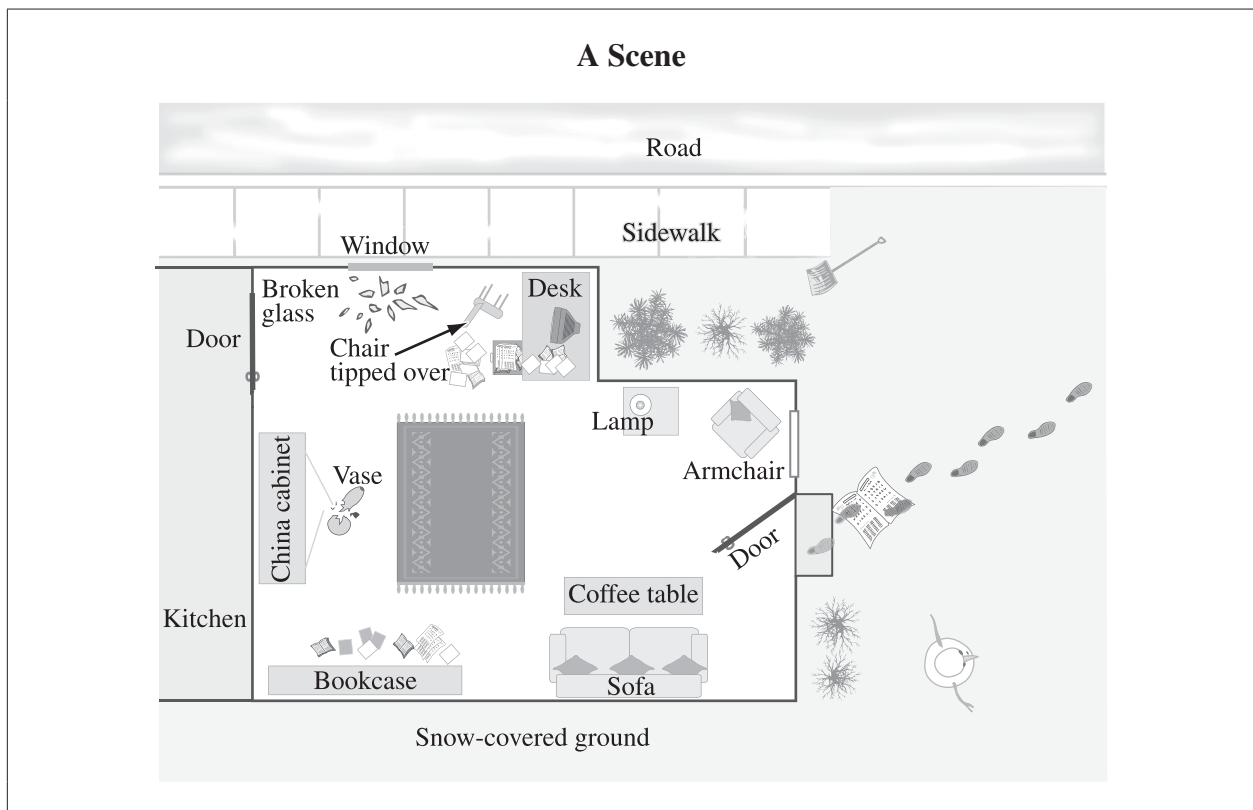


2. What is the responding variable in the test shown above?
- A. Colour of the pen
 - B. Type of filter paper
 - C. Separation of the ink
 - D. Length of the filter paper

3. Which of the following rows matches the colour of powder that should be used to collect fingerprints with the colour of the surface on which the fingerprint is found?

| Row | Colour of the Powder | Colour of the Surface |
|-----|----------------------|-----------------------|
| A. | Yellow | Light coloured |
| B. | Black | Dark coloured |
| C. | White | Light coloured |
| D. | White | Dark coloured |

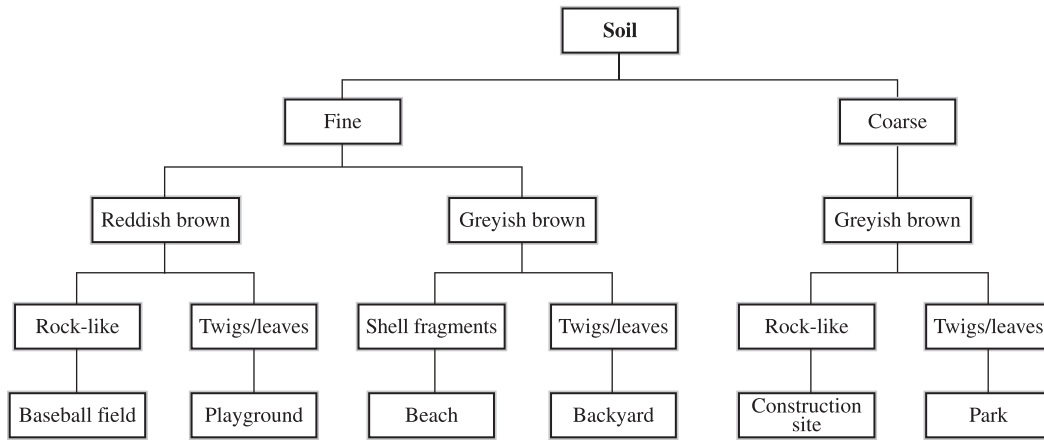
Use the following information to answer question 4.



4. An observation that can be made about the scene above is that a
- person accessed information from the computer on the desk
 - broken vase is on the floor in front of the china cabinet
 - person dropped a newspaper outside the door
 - bookcase was moved

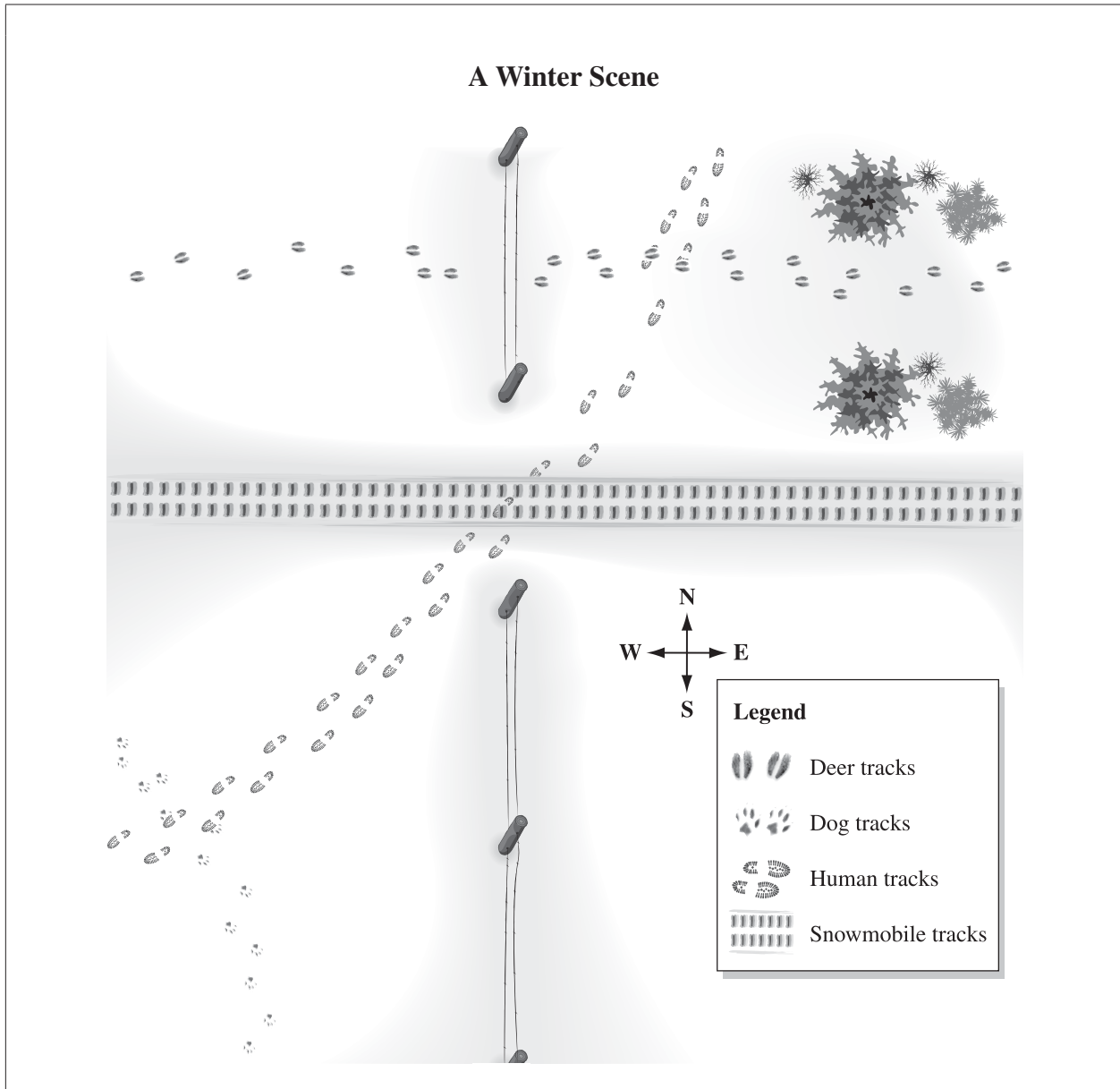
Use the following information to answer question 5.

A Science 6 student tracks soil into her house after being outside. The soil is fine with brown, rock-like particles in it. The dichotomous key shown below identifies some characteristics of the soil found in different locations in the student's neighborhood.



5. Which of the following locations did the student **most likely** visit before she entered her house?
- A. Beach
 - B. Playground
 - C. Baseball field
 - D. Construction site

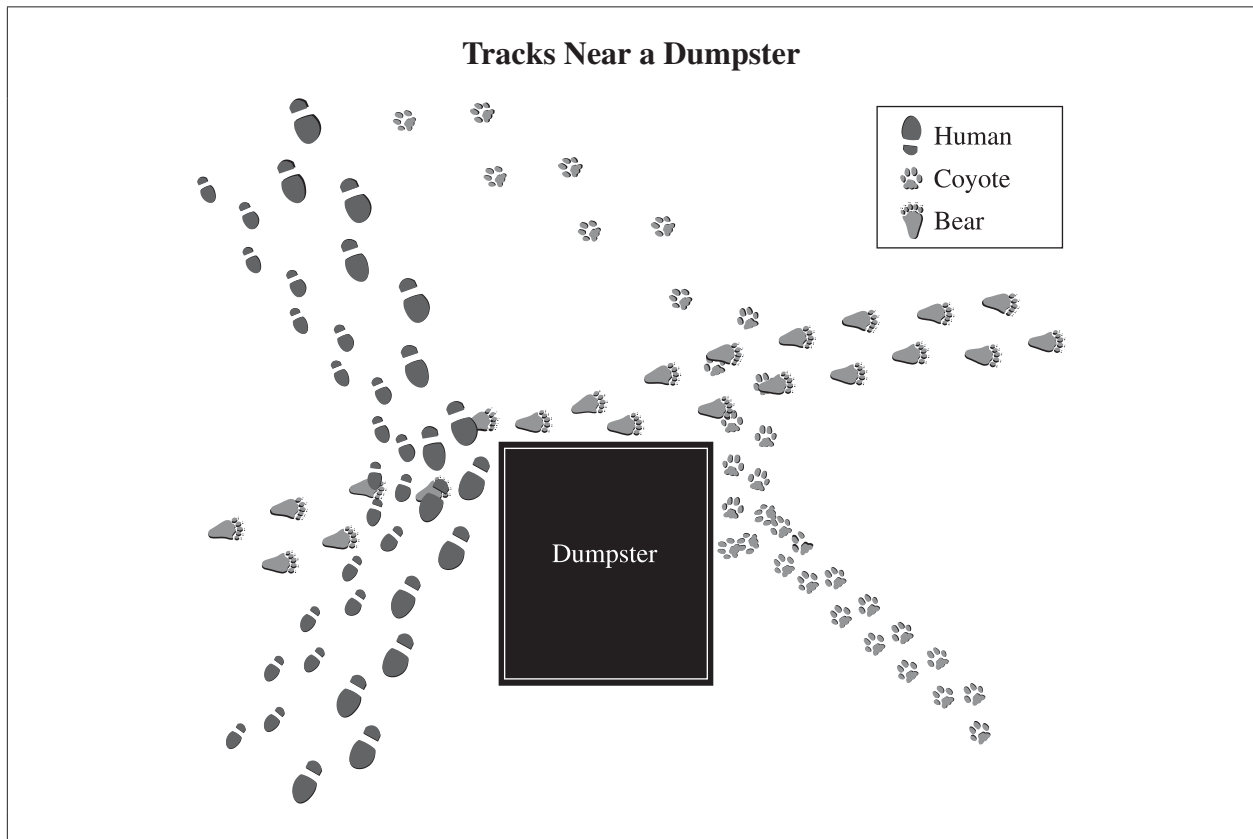
Use the following information to answer questions 6 to 8.



6. The sequence in which the tracks were made, from **earliest** to **latest**, was
- A. dog, snowmobile, human, deer
 - B. dog, human, snowmobile, deer
 - C. deer, human, snowmobile, dog
 - D. deer, snowmobile, human, dog
7. Which of the following inferences is supported by the information shown above?
- A. The snowmobile broke through the fence.
 - B. The snowmobile carried two people.
 - C. The deer jumped over the fence.
 - D. The man chased the dog.

8. For which of the tracks on the previous page would it be **most** difficult to determine the direction of travel?
- A. Dog
 - B. Deer
 - C. Human
 - D. Snowmobile
-

Use the following information to answer question 9.



9. An observation that can be made from the diagram above is that the
- A. human tracks were made by two different shoe sizes
 - B. coyote was scared and ran away when it saw the bear
 - C. bear tracks are on top of the coyote and human tracks
 - D. coyote was scared and ran away when it saw the people

Use the following information to answer question 10.

The police find the following set of fingerprints.



Fingerprint Patterns



Arch



Loop



Whorl

10. The patterns on the fingerprints shown above, from left to right, are a
- A. loop, an arch, a loop, and an arch
 - B. loop, an arch, a loop, and a whorl
 - C. whorl, an arch, a whorl, and an arch
 - D. whorl, an arch, a whorl, and a loop

Use the following information to answer question 11.

A teacher receives an assignment without a name on it. Four students claim ownership of the assignment. The teacher asks them to write a sentence on a piece of paper. She then compares the sentences with the assignment to determine which student the assignment belongs to.

Sample of Writing from Assignment

Satellites are used to help predict weather and observe space.

They also pass on phone and TV signals.

Samples of Writing from Students

Student 1 *The quick brown fox jumps over the lazy dog.*

Student 2 *The quick brown fox jumps over the lazy dog.*

Student 3 *The quick brown fox jumps over the lazy dog.*

Student 4 *The quick brown fox jumps over the lazy dog.*

11. The assignment belongs to

- A. Student 1
- B. Student 2
- C. Student 3
- D. Student 4

Use the following information to answer question 12.

Grade 6 students list some of the variables in their chromatography experiment.

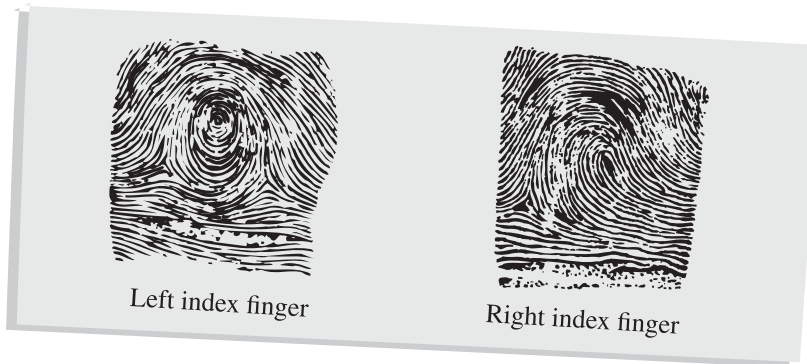
- Type of marker tested
- Volume of water used
- Length of line placed on paper
- Separation of the ink

12. Which of the following rows identifies the manipulated variable and a controlled variable in this experiment?

| Row | Manipulated Variable | Controlled Variable |
|-----|--------------------------------|-----------------------|
| A. | Type of marker tested | Separation of the ink |
| B. | Type of marker tested | Volume of water used |
| C. | Length of line placed on paper | Separation of the ink |
| D. | Length of line placed on paper | Volume of water used |

Use the following information to answer question 13.

Andrea enlarges fingerprints of her left index finger and of her right index finger.



Fingerprint Patterns



Arch



Loop



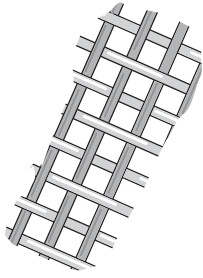
Whorl

13. Which of the following rows identifies the fingerprint patterns on Andrea's left and right index fingers?

| Row | Left Index Finger | Right Index Finger |
|-----|-------------------|--------------------|
| A. | Whorl | Arch |
| B. | Whorl | Loop |
| C. | Arch | Whorl |
| D. | Arch | Loop |

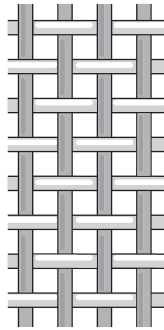
Use the following information to answer question 14.

Fabric Sample Found at a Scene

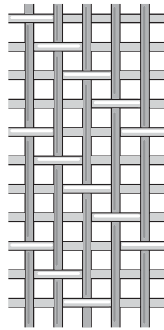


Fabric Samples Collected from the Shirts of Four Suspects

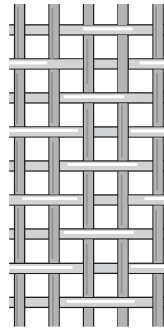
Suspect W



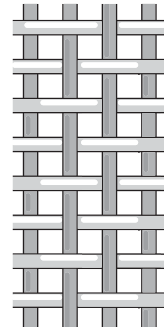
Suspect X



Suspect Y



Suspect Z



14. Which suspect's fabric sample **most closely** resembles the fabric found at the scene?

- A. Suspect W
- B. Suspect X
- C. Suspect Y
- D. Suspect Z

Use the following information to answer question 15.

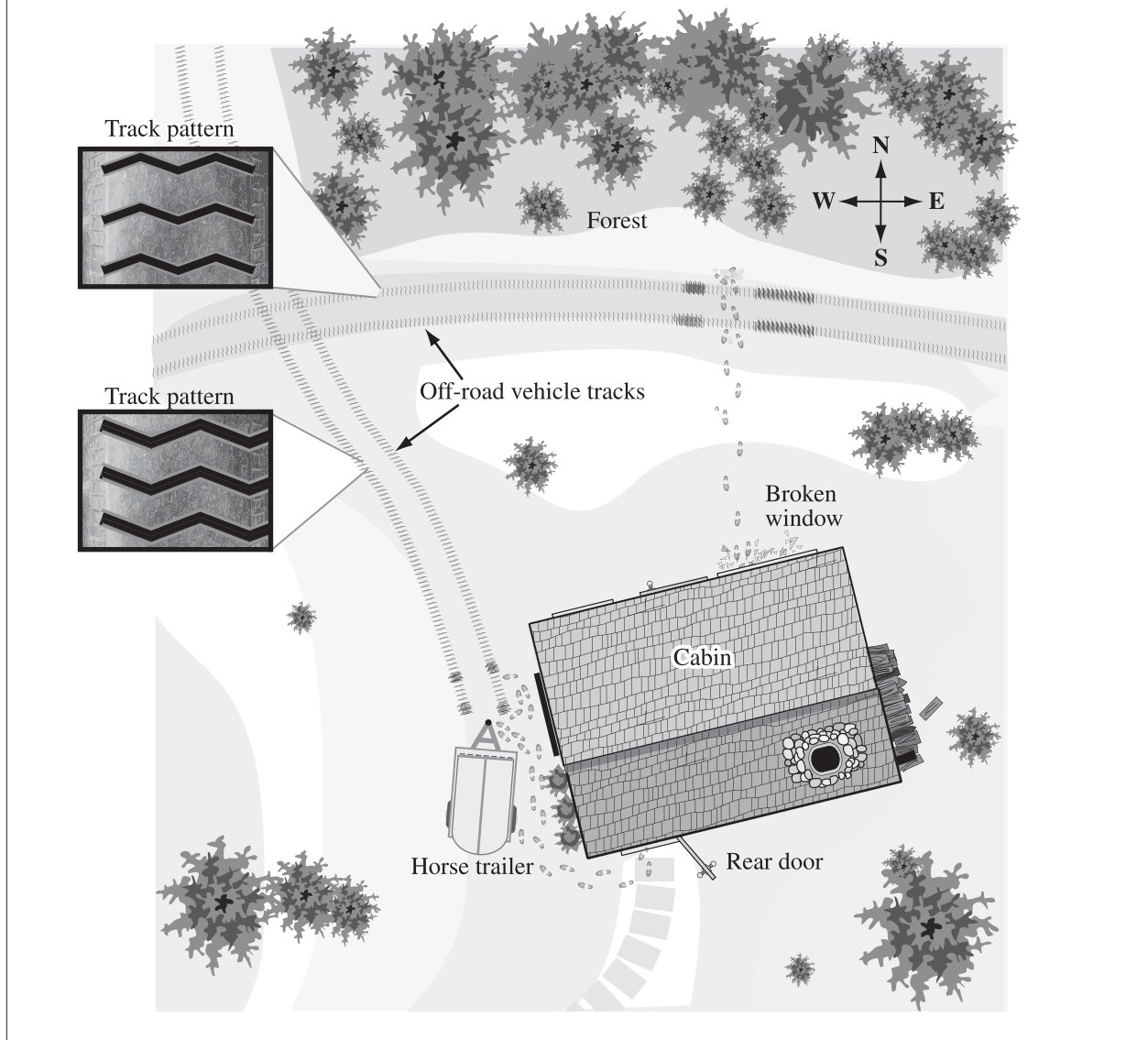
Jackson attempts to match a note that he found to the person who wrote it by comparing it to samples of writing of students in his class. He identifies, in the table below, some characteristics that could be used to match the writing samples.

| Characteristics | |
|-----------------|---------------------------------|
| 1 | The slant of the letters |
| 2 | How specific letters are formed |
| 3 | The colour of the ink |
| 4 | The size of the letters |
| 5 | The brand name of the pen |

15. The three characteristics listed above that he should compare to **most accurately** identify the person who left the note are
- A. characteristics 1, 2, and 4
 - B. characteristics 1, 3, and 4
 - C. characteristics 2, 3, and 5
 - D. characteristics 2, 4, and 5

Use the following information to answer question 16.

While on patrol, police come across a summer cabin that appears to have been broken into. They make a diagram of the scene.

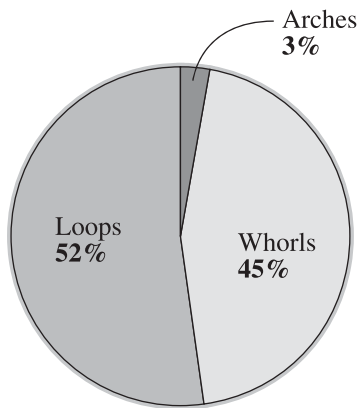


16. Which of the following statements is an observation that can be made from the diagram?

- A. The rear door of the cabin is open.
- B. The window was broken with a rock.
- C. The off-road vehicle tracks were made by the same vehicle.
- D. The person could not hook up the horse trailer to the vehicle.

Use the following information to answer question 17.

A student completes a study to determine which fingerprint pattern is found most commonly on the right index fingers of the 500 students in her school. Using an ink pad and white paper, the student takes the right index fingerprint of the 25 students in her class. The results are shown below.



Based on her results, the student concluded that most of the students in her school have a loop pattern on their right index finger.

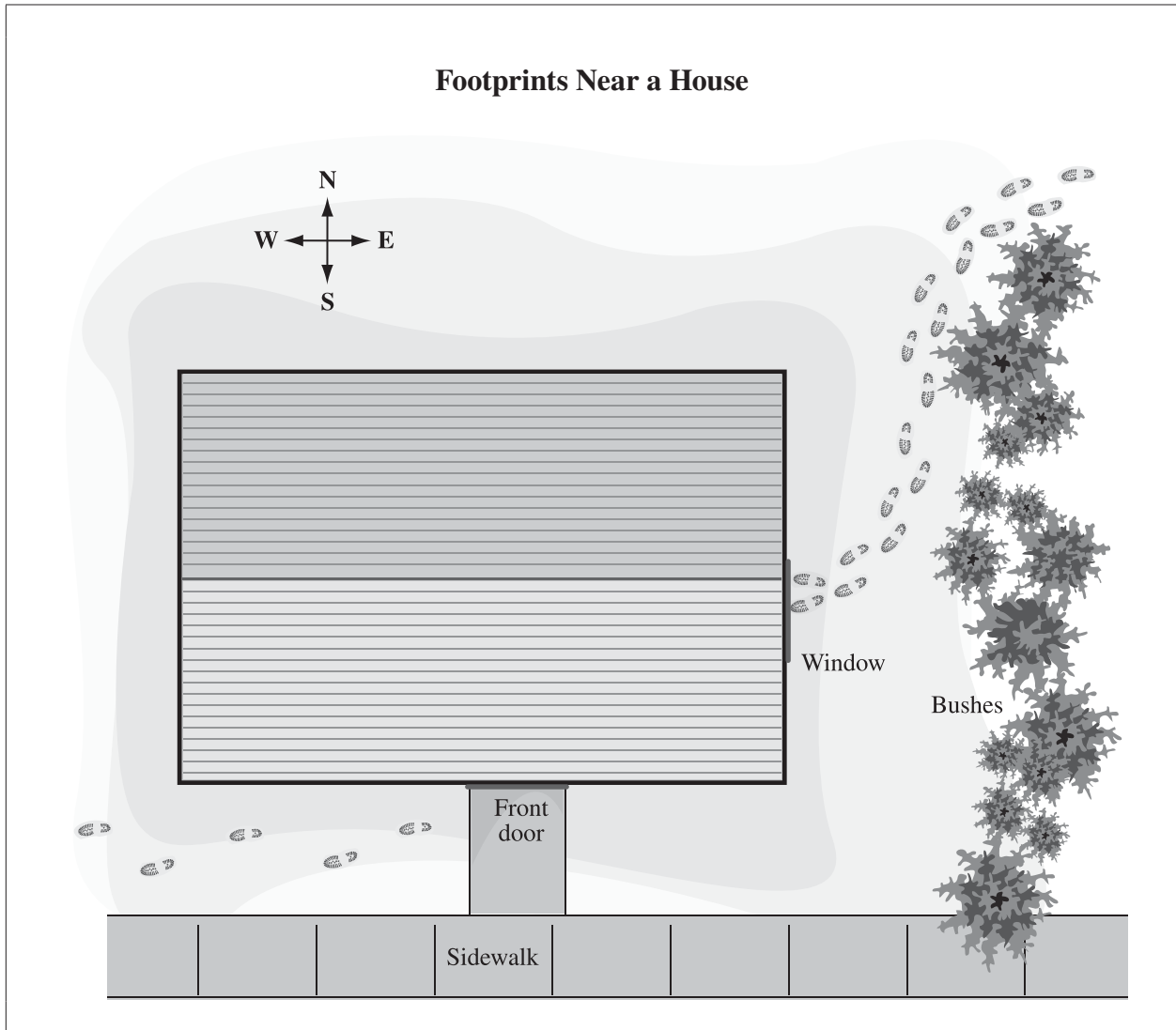
17. The student's conclusion would have been more reliable if she had
- A. taken fingerprints from a different finger
 - B. taken the fingerprints of students from a different class
 - C. obtained more fingerprints from other students in the school
 - D. used a different procedure to obtain fingerprints from students in the school

Use the following information to answer question 18.

To investigate the different properties of fabrics, Lydia conducts a fabric burn test. Lydia records the following statement: "After the fabric was burned, the product that was formed was blackish in colour and turned into a powder when crushed."

18. The statement that Lydia records in her report is considered to be part of the
- A. prediction
 - B. conclusion
 - C. hypothesis
 - D. observation

Use the following information to answer question 19.



19. Which of the following rows identifies the direction and speed of travel for the set of footprints exiting the house above?

| Row | Direction | Type of Stride |
|-----|-----------|----------------|
| A. | West | Running |
| B. | West | Walking |
| C. | East | Running |
| D. | East | Walking |

Use the following information to answer question 20.

A clothes designer wants to determine the best fabric for a hiking jacket. The fabric should keep a person dry, warm, and protected from the wind.

Types of Fabric

| Fabric Sample | Elasticity of Fabric | Moisture Absorption | Weave Pattern |
|----------------------|-----------------------------|----------------------------|----------------------|
| I | Inelastic | Yes | Tight |
| II | Inelastic | No | Loose |
| III | Elastic | Yes | Loose |
| IV | Elastic | No | Tight |

20. Which fabric is **most suitable** for the hiking jacket?

- A. I
- B. II
- C. III
- D. IV

Science 6 – Practice Test 2020 Evidence and Investigation Key

| Question # in Document | Key |
|---------------------------|-----|
| 1 | A |
| 2 | C |
| 3 | D |
| 4 | B |
| 5 | C |
| 6 | B |
| 7 | C |
| 8 | D |
| 9 | A |
| 10 | D |
| 11 | C |
| 12 | B |
| 13 | B |
| 14 | C |
| 15 | A |
| 16 | A |
| 17 | C |
| 18 | D |
| 19 | A |
| 20 | D |