## Grade 6 - Science: PAT Practice Exam

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50 multiple-choice questions: (Maximum Time Allowed: 150 min )

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Prepared for: Grade 6 Student
Prepared on: 27/05/2018

## Grade 6 Science:

## PAT Assessment

## General Description:

The Grade 6 Science Achievement Test consists of 50 multiple-choice questions.

The test is developed to be completed in 1 hour; however, students have up to 2 hours to complete the test plus an additional 30 minutes should they need it (Maximum Time Allowed: $\mathbf{1 5 0} \mathbf{~ m i n}$ ).

Students require HB pencils, erasers, and scrap paper. Calculators are not requiredfor successful completion of the assessment but are permitted.

Students may not use a dictionary, a thesaurus, or other reference materials when writing the test. If a word that warrants a definition is used on a test, it will be defined on the page on which it appears.

Questions will have contexts drawn from the following topics:

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Use thefollowing information to answer question I.
A paper rotor is made by cutting and folding paper.


1. Which force causes the downward movement of the paper rotor?
A. Gravity
B. Thrust
C. Drag
D. Lift
2. Which of the following examples best illustrates the compression of air?
A. Flying a kite
B. Inflating a tire
C. Blowing out a candle
D. Using a vacuum cleaner

Billy accidentally covered all the air holes on his ant farm during lunch hour.

3. Which of the following statements describes what will happen to the air inside the ant farm as a result of the air holes being covered?
A. The oxygen concentration and the carbon dioxide concentration will both merease.
B. The oxygen concentration and the carbon dioxide concentration will both decrease.
C. The oxygen concentration will decrease and the carbon dioxide concentration will increase.
D. The oxygen concentration will increase and the carbon dioxide concentration will decrease.

Use thefollowing illustration to answer question 4.

4. As long as the finger is covering the top of the straw, the water will stay in the straw because the air pressure at the
A. bottom of the straw is greater than the force of gravity
B. bottom of the straw is less than the force of gravity
C. top of the straw is greater than the force of gravity
D. top of the straw is less than the force of gravity
5. The purpose of the fins on a rocket is to
A. reduce drag
B. generate lift
C. provide stability
D. streamline shape

The chart below lists the results of an experiment with parachutes.

|  | Length of <br> shroud lines <br> $(\mathbf{c m})$ | Diameter of <br> air hole in <br> canopy <br> $(\mathbf{c m})$ | Number of <br> paper-clips <br> used as weight | Time <br> to reach <br> ground <br> $(\mathbf{s})$ |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{P a r a c h u t e}$ | 24 | 0.5 | 4 | 18 |
| $\mathbf{1}$ | 24 | 0.5 | 6 | 16 |
| $\mathbf{3}$ | 24 | 0.5 | 8 | 14 |
| $\mathbf{4}$ | 24 | 0.5 | 10 | 12 |

6. Based on the information in the chart, which of the following conclusions can be reached?
A. The larger the hole in the canopy, the slower the parachute will descend.
B. The length of the shroud lines has little effect on a parachute's rate of descent.
C. Parachutes descend slower as the number of paper-clips attached to them increases.
D. Parachutes descend faster as the number of paper-clips attached to them increases.
7. Parachutes cause objects to fall to the ground more slowly because they
A. increase air resistance
B. decrease air resistance
C. increase the force of gravity
D. decrease the force of gravity

A large plastic bag and a hair dryer are used as a model for a hot-air balloon. When the hair dryer is turned on, it blows hot air into the bag. The moment the hair dryer is turned off, the plastic bag is released and floats upward.

Mode] of a Hot-Air Balloon

8. The reason that the plastic bag floats upward is that the air
A. inside the bag is less dense than the air outside the bag
B. inside the bag has the same density as the air outside the bag
C. molecules inside the bag move more slowly than the air molecules outside the bag
D. molecules inside the bag are closer together than the air molecules outside the bag
9. An engineer is designing a bridge to cross a fast-flowing river. Which of the following designs m a bridge support would offer the least resistance to the water'./

$$
-\backsim \quad \text { Indicates direction of water flow }
$$

A.

B.

C.

n

10. Bernoulli's principle states that as the i_ ofafluid increases, the pressure exerted by that fluid $\qquad$ ii .

The statement above is completed by the information in row

| Row | $\boldsymbol{i}$ | $\boldsymbol{i}$ |
| :---: | :--- | :--- |
| A. | speed | mcreases |
| B. | speed | decreases |
| C. | volume | mcreases |
| D. | volume | decreases |

Use the following diagram to answer questions 11 and 12.

11. In the diagram above, the part of the airplane that controls yaw is identified by the letter
A. W
B. X
C. y
D. Z
12. The part of the airplane that is used to control the up and down movement of the nose of the airplane is identified by the letter
A. W
B. X
C. Y
D. Z
13. Which or the following control settings causes a model glider to continuously roll lo the right while it is nying in a straight line•,
A. The right aileron up, the lert aileron down, and the rudder neutral
11. The right aileron clown, the left aileron up, and the rudder neutral
C. The right aileron neutral, the left aileron neutral, and the rudder left
D. The right aileron neutral, the left aileron neutral, and the rudder right
14. On an airplane, the rudder is located on the
A. horizontal stabilizer
B. vertical stabilizer
C. elevators
D. wings

Use the following illformation to answer question 15.

When a student kicks a soccer ball, the air particles inside the ball are compressed for a very short time.
15. An inference that can be made about the air particles inside the soccer ball is that when they are compressed, they
A. are colder than uncompressed air particles
B. have less mass than uncompressed air particles
C. have more mass than uncompressed air particles
D. are closer together than uncompressed air particles

Use the following infonnation to answer question 16.
A carnival game is shown in the diagram below.

| Force exerted <br> by person <br> swinging <br> the mallet $(\mathbf{N})$ | Height <br> of ball <br> $(\mathbf{m})$ |
| :---: | :---: |
| 4 | I |
| 5 | 2 |
| 7 | 3 |
| 10 | 4 |
| $?$ | 5 |
| $?$ | 6 |


16. According to the table above, how much force must the person swinging the mallet exert in order to ring the bell?
A. $\quad 13 \mathrm{~N}$
B. $\quad 14 \mathrm{~N}$
C. 16 N
D. 19 N

The following chart shows the approximate distance of several planets from the sun and the time required for the planets to revolve around the sun.

| Planet | Approximate <br> distance from the sun <br> (million kilometres) | Time required for planet <br> to revolve around the sun <br> (Earth units) |
| :--- | :---: | :---: |
| Mercury | 58 | 88 days |
| Venus | 108 | 225 days |
| Earth | 150 | 1 year |
| Jupiter | 778 | 12 years |
| Uranus | 2871 | 84 years |
| Neptune | 4498 | 165 years |

17. It can be inferred from the chart above that the planet Saturn, which is approximately 1430 million kilometres from the sun, revolves around the sun approximately once every
A. 3 years
B. 10 years
C. 30 years
D. 100 years
18. The source of light that enables astronomers to see Jupiter through a telescope is
A. the moon
B. the sun
C. Jupiter
D. Earth

Use the following illformation to answer question 19.
A science class uses a marble, a softball, and a lamp to represent the moon, Earth, and the sun respectively, as shown in the model below.


E
1
19. A solar eclipse would most likely be modelled when the marble is in position
A. 1
B. 2
C. 3
D. 4
20. Which or the following sequences best represents the phases of the moon as seen from Earth over the course or one month?
A.

B.

C.


D.

21. From a particular location on Earth, the constellation Orion appears to be in a different position in the sky at 7 P.M., 11 P.M., and 3 A.M. This change in position is due to
A. the constellation revolving through space
B. the constellation rotating around the sun
C. Earth revolving around the sun
D. Earth rotating on its axis
22. Which of the following planets is larger than Earth?
A. Mercury
B. Neptune
C. Venus
D. Mars

Use the following table to answer question 23.

| Angle of Sun at Solar Noon and Number of Daylight Hours |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  Angle of Sun <br> at Noon <br> (December 21) Amount of <br> Daylight <br> (December 21) Angle of <br> Sun at Noon <br> (June 21) Amount of <br> Daylight <br> (June 21) <br> $\mathbf{1}$ 130 $8 \mathrm{~h}, 12 \mathrm{~min}$ $60^{\circ}$ $17 \mathrm{~h}, 48 \mathrm{~min}$ <br> $\mathbf{2}$ $16^{\circ}$ $8 \mathrm{~h}, 31 \mathrm{~min}$ $63^{\circ}$ $17 \mathrm{~h}, 29 \mathrm{~min}$ <br> $\mathbf{3}$ $19^{\circ}$ $8 \mathrm{~h}, 50 \mathrm{~min}$ $66^{\circ}$ $17 \mathrm{~h}, 10 \mathrm{~min}$ <br> $\mathbf{4}$ $21^{\circ}$ $9 \mathrm{~h}, 9 \mathrm{~min}$ $69^{\circ}$ $16 \mathrm{~h}, 51 \mathrm{~min}$ |  |  |  |  |

23. Based on the information in the table above, the best prediction of the number of daylight hours that location 3 would have on February 21 is approximately
A. 17 h
B. 15 h
C. 10 h
D. 8 h

Use rhefolloll'ing i11f'or111otio11 10 c111s11'er question 24.

The position of the Big Dipper changes throughout the year. Its position at midnight in the December night sky is shown below.


December (midnight)
24. Which of the following rows shows the position of the Big Dipper at midnight in the March, June, and September night sky?


Use thefollowing information to answer question 25.
A student records the times at which the sun rises and sets over a period of a week.

| Day | Time of Sunrise | Time of Sunset |
| :---: | :---: | :---: |
| Monday | 7:33 А.м. | 7:12 Р.м. |
| Tuesday | X | Cloudy |
| Wednesday | 7:37 А.м. | 7:08 Р.м. |
| Thursday | y | 7:06 Р.м. |
| Friday | 7:41 А.м. | 7:04 Р.м. |
| Saturday | 7:43 А.м. | Z |
| Sunday | 7:45 А.м. | 7:00 Р.м. |

25. Which of the following rows identifies the times that replace $X, Y$, and $Z$ in the chart?

| Row | $\mathbf{X}$ | $\mathbf{y}$ | $\mathbf{Z}$ |
| :---: | :---: | :---: | :---: |
| A. | 7:34 А.M. | 7:38 А.M. | 7:01 Р.M. |
| B. | 7:34 А.M. | 7:38 А.M. | 7:02 Р.м. |
| C. | 7:35 А.M. | 7:39 А.M. | 7:02 Р.м. |
| D. | 7:35 А.M. | 7:39 А.M. | 7:03 Р.м. |

To model the phases of the moon, a student uses a globe to represent Earth, a marble to represent lhe moon, and a flashlight to represent the sun.

26. In which of the models has the student positioned the marble to represent the moon in its last quarter phase, as observed $\mathrm{f}^{\mathrm{r}} \mathrm{om}$ Earth?
A. Model I
B. Model II
C. Model III
D. Model IV

Use the.following table to answer question 27.

| Characteristics of Four Tracks Left by the Same Student |  |  |
| :---: | :--- | :---: |
| Track | Description of Imprint | Length of Stride <br> (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 |

27. Which track was made by the student when he was walking?
A. I
B. II
C. III
D. IV

Use 1!1efol/owillg inj'ornwtion th o11s11'er question 28.
The ink from !'our different pens was tested using chromatography.

28. In this experiment, what is the responding variable?
A. Colour of the pen
B. Separation of the ink
C. Thickness of the ink line
D. Length of the filter paper
29. It is eosier to collectfingerprints.fimn $a-i{ }_{-}$swface with $\underline{-}^{t} t^{\circ}=$ powde,:

The statement above is completed by the information in row

| Row | $\boldsymbol{i}$ | ii |
| :---: | :--- | :--- |
| A. | light-coloured | white |
| B. | light-coloured | yellow |
| C. | dark-coloured | black |
| D. | dark-coloured | white |

Use thefollowing diagram to answer question 30.

30. An observation that can be made about the crime scene above is that the
A. intruder accessed information from the computer on the desk
B. broken vase is on the floor in front of the china cabinet
C. intruder dropped a newspaper outside the door
D. bookcase was moved

Use t/iefol/011:11g classificotio11 clwrt to 011.1/11-er question 31.

31. A Science 6 student tracks soil into her house after being outside. The soil is fine with brown, rock-like particles in it. According to the classification chart shown above, where had the student most likely been before entering her house?
A. Beach
B. Playground
C. Baseball field
D. Construction site

Use the following diagram to answer question 32.

32. 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 thefol/011•i11g cliogrw11 to 011s11•er questions 33 011d 34.

33. The sequence in which the tracks in the diagram 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, clog
34. The best inference that can be made from the diagram is that
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 clog

Use the.following information to answer question 35.

35. The patterns on the fingerprints shown above, $\mathrm{f}^{\mathrm{r}}$ om left to right. are a
A. loop, an mch, 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 thefollm1'i11g i11\{omwtion to 011s11'er question 36,

A teacher receives an assignment without a n;ime on it Four students claim ownership of the assignment, The leacher 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 $7 V$ signals.

## Samples of Writing from Students


36. The assignment belongs to
A. student 1
B. student 2
C. student 3
D. student 4

Use the.following information to answer question 37.

## Statements Based on an Animal's Tracks

Statement 1 This animal can climb trees.
Statement 2 This animal has a claw on each toe.
Statement 3 This animal has four legs.
Statement 4 This animal is a raccoon.

37. Which of the following statements are observations?
A. $\quad 1$ and 3
B. 1 and 4
C. 2 and 3
D. 2 and 4

Use the following information to answer question 38.

Coyotes, willows, squirrels, and snowshoe hares are all part of a particular forest ecosystem.
38. Which of the following food chains is a possible food chain for the organisms in this forest?
A. Sun Coyote Snowshoe hare Willow
B. Sun Willow Snowshoe hare Coyote
C. Sun Squirrel Snowshoe hare -> Coyote
D. Sun Willow Snowshoe hare Squirrel
39. Spruce trees survive periods of drought better than poplar trees because spruce trees
A. are taller than poplar trees
B. are shorter than poplar trees
C. transpire less than poplar trees
D. transpire more than poplar trees

A student develops the following concept map to organize ideas for a report.

40. Which of the following rows shows the appropriate titles for each of the sections in the student's concept map?

| Row | Section 1 | Section 2 | Section 3 | Section 4 |
| :---: | :--- | :--- | :--- | :--- |
| A. | Life Support | Raw Materials | Habitat | Recreation |
| B. | Life Support | Raw Materials | Recreation | Habitat |
| C. | Raw Materials | Life Support | Habitat | Recreation |
| D. | Raw Materials | Life Support | Recreation | Habitat |

41. Which two sections of the student's report will most likely discuss photosynthesis?
A. Sections 1 and 3
B. Sections 1 and 4
C. Sections 2 and 3
D. Sections 2 and 4

Use thefollowing information to answer question 42.
Dan examines the leaves of two different coniferous trees in his yard.

| Tree I | Has flat, bunched leaves |
| :--- | :--- |
| Tree II | Has square, single leaves |

He tries to identify the two trees using the following key.

42. Which of the following rows identifies the two trees?

| Row | Tree I | Tree II |
| :---: | :--- | :--- |
| A. | Jack pine | White spruce |
| B. | Jack pine | Limber pine |
| C. | Douglas fir | White spruce |
| D. | Douglas fir | Limber pine |

43. From which part of a tree is most water lost?
A. Roots
B. Trunk
C. Leaves
D. Branches

Use thefo//01,'ing illf'omwtioll to m1s1, er questio11.1. 44 Olld 45.

Samantha is investigating the length of time that it takes for maple seeds with hlades of different sizes to !'all. Her goal is to produce data that can be plotted on the graph shown below.


Samantha selects the following four seeds for her investigation.


W


X

y


Z
44. Which of the following variables should be controlled in Samantha's investigation?
A. Mass of the seeds
B. Length of the seed blades
C. Time taken for each seed to fall
D. Height from which the seeds are dropped

Use thefollowing additional illformation to answer question 45.
Samantha proposes the following four procedures for her investigation.

## List of Four Procedures


45. Which of the above procedures used together will provide the student with the data necessary to complete the graph shown on the previous page?
A. Procedures 1 and 3
B. Procedures 1 and 4
C. Procedures 2 and 3
D. Procedures 2 and 4

A student has begun to graph the results of an experiment. The experiment involves measuring lhe height of a plant every week for eight weeks.

## Height o Plant Over Time


46. Between week 3 and week 8 , the height of the plant increased by approximately
A. $\quad 3.0 \mathrm{~cm}$
B. $\quad 3.5 \mathrm{~cm}$
C. $\quad 38.5 \mathrm{~cm}$
D. $\quad 39.0 \mathrm{~cm}$
47. Most deciduous trees produce . _ and have _ii leaves.

The statement above is completed by the information in row

| Row | $\boldsymbol{i}$ | $\boldsymbol{i i}$ |
| :---: | :--- | :--- |
| A. | cones | needle |
| B. | cones | broad |
| C. | flowers | needle |
| D. | flowers | broad |

48. Which of the following organisms is a producer?
A. Ant
B. Grass
C. Mushroom
D. Earthworm

Use the following information to answer question 49.
A local government has decided to convert a nature preserve into a golf course and a skating rink. Four citizens have expressed their opinions on the project.
Citizen I "I am opposed to the decision because development will eliminate the natural habitat of many animals."

Citizen II "I am in favour of the decision because development will lead to an increase in tourism."

Citizen III "I am opposed to the decision because development will ruin the look of the area."

Citizen IV "I am in favour of the decision because development will allow new varieties of trees to grow."
49. Which citizen is most likely a member of an environmental group?
A. Citizen I
B. Citizen II
C. Citizen III
D. Citizen IV

Use rhefol/rJ <br>ing diagrc1111 ro onsi, er question 50.

50. Which letter represents the year with the most favourable growing conditions?
A. W
B. X
C. $Y$
D. Z
$\qquad$

## Bubble Answer Sheet

| 1.0000 | 18.0®@ | $35.0 B C B$ |
| :---: | :---: | :---: |
| $2.0 B C B$ | $19.08 C B$ | 36.0808 |
| 3.0808 | 20.0BCR | 37.08 BCR |
| 4.0808 | $21.08 C B$ | 38.0808 |
| S.OBPR | 22.0BCB | 39.0®CR |
| 6.0808 | 23.0BCR | 40.0808 |
| 1.ORCR | 24.0BCR | 41.0808 |
| 8.0808 | 2S.OBCB | 42.00¢® |
| 9.0808 | 26.0BCB | 43.0808 |
| 10.0BCB | $21.08 C B$ | 44.0808 |
| $11.0 B C B$ | $28.080 \cdot 8$ | 4s.OBCB |
| $12.0 B C B$ | 29.0BCR | 46.0808 |
| 13.0BCR | 30.0RCR | $47.00 ¢ \square$ |
| 14.0BCR | $31.08 C R$ | 48.0008 |
| 1s.OBCB | 32.0808 | 49.0®CR |
| 16.0808 | 33.0808 | SO.00C® |
| 11.0808 | $34.08 C B$ |  |

The table below provides information about each question on the 2008 test: the keyed response, the difficulty of the item (the percentage of students who answered the question correctly), the reporting category, the topic, and the item description.

| Question | Reporting Category | Key | Difficulty <br> (\%) | Topic | Item Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Knowledge | A | 85.8 | Aerodynamics \& Flight | Identify which force has the greatest impact on the downward movement of a falling body |
| 2 | Knowledge | B | 75.3 | Aerodynamics \& Flight | Identify an example situation where air is being compressed |
| 3 | Skills | C | 77.3 | Aerodynamics \& Flight | Describe the change in composition of air in an ant farm when outside air is not permitted to enter |
| 4 | Skills | A | 50.3 | Aerodynamics \& Flight | Determine the relationship between air pressure and gravity in an experiment |
| 5 | Knowledge | C | 57.1 | Aerodynamics \& Flight | Recognize the function of fins found on rockets |
| 6 | Skills | D | 74.1 | Inquiry \& Problem Solving | Analyze a chart to draw a scientific conclusion |
| 7 | Knowledge | A | 60.5 | Aerodynamics \& Flight | Explain how air resistance affects the fall of a parachute |
| 8 | Skills | A | 57.1 | Aerodynamics \& Flight | Describe the reason why a hot-air balloon model floats when the air it contains is heated |
| 9 | Skills | B | 70.2 | Aerodynamics \& Flight | Compare bridge support designs and identify that which is most streamlined |
| 10 | Knowledge | B | 55.0 | Aerodynamics \& Flight | Recognize the characteristics that define Bernoulli's principle |
| 11 | Knowledge | D | 60.1 | Aerodynamics \& Flight | Identify the control surface of a plane that controls yaw |
| 12 | Knowledge | C | 71.9 | Aerodynamics \& Flight | Identify the location of the elevator on a plane |
| 13 | Knowledge | A | 50.2 | Aerodynamics \& Flight | Identify the settings of the control surfaces of a glider that would help maintain a continuous roll |
| 14 | Knowledge | B | 59.8 | Aerodynamics \& Flight | Identify the airplane structure in which the rudder is located |
| 15 | Skills | D | 58.1 | Aerodynamics \& Flight | Make an inference that compares the properties of compressed to uncompressed air particles |
| 16 | Skills | D | 73.9 | Inquiry \& Problem Solving | Determine the trend in a table |


| Question | Reporting Category | Key | Difficulty (\%) | Topic | Item Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | Skills | C | T,. 9 | Inquiry \& Problem Solving | Analyze a chart 10 determine how long it takes Saturn to revolve around the sun |
| 18 | Knowledge: | B | 69.4 | Sky Science | Identify the sun as the source of light that enables cekstial bodies lo be seen in the night sky |
| 19 | Skills | A | 68.9 | Sky Science | Illustrate the posit ions or objects in a solar system model that would produce a solar eclipse |
| 20 | Knowledge | B | 78.1 | Sky Science | Recognize the phases of the moon over one month |
| 21 | Knowledge | D | 74.7 | Sky Science | Describe the apparent movement of constellations in the night sky relative to Earth |
| 22 | Knowledge | B | 66.0 | Sky Science | Recognize the planet that is larger than Earth |
| 23 | Skills | C | 55.8 | Sky Science | Predict the number of daylight hours at a particular location given a table that indicates daylight hours during each solstice |
| 24 | Skills | D | 50.4 | Sky Science | Determine the orientation of the Big Dipper in each season |
| 25 | Skills | C | 80.7 | fnquiry \& Problem Solving | Predict the missing sunset and sunrise times when given a pattern |
| 26 | Skills | D | 57.6 | Sky Science | Determine the position on a model that represents the moon in its last quarter |
| 27 | Skills | A | 72.3 | Evidence \& Investigation | Use a table outlining the description of foot imprint and length of stride to identify the track in which walking takes place |
| 28 | Skills | B | 50.4 | Inquiry \& Problem Solving | Analyze a chromatography experiment and determine the responding variable |
| 29 | Knowledge | D | 72.2 | Evidence \& Investigation | Identify a method that helps make the collection of fingerprint evidence easier |
| 30 | Skills | B | 60.0 | Inquiry \& Problem Solving | Analyze a crime scene accurately to make an observation |
| 31 | Ski 11s | C | 77.3 | Evidence \& Investigation | Analyze a soil classification table to infer the prior location of a person |
| 32 | Skills | A | 80.9 | Evidence \& Investigation | Analyze a diagram of human and animal tracks and provide an observation |
| 33 | Skills | B | 54.9 | Evidence \& Investigation | Evaluate four sets of tracks to determine the order in which they were made |


| Question | Reporting Category | Key | Difficulty (\%) | Topic | Item Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | Skills | C | 89.1 | Inquiry \& Problem Solving | Evaluate four sets of tracks and make an inference based on the evidence provided by the tracks |
| 35 | Knowledge | D | 71.3 | Evidence \& Investigation | Identify the fingerprint formula of a suspect at a given crime scene |
| 36 | Skills | C | 72.0 | Evidence \& Investigation | Evaluate handwriting samples to identify the source of a document |
| 37 | Skills | C | 73.4 | Inquiry \& Problem Solving | Analyze four statements and identify two statements that are observations |
| 38 | Knowledge | B | 58.5 |  <br> Forests | Identify which food chain best represents a particular forest ecosystem |
| 39 | Knowledge | C | 53.3 | Trees \& Forests | Identify the attribute of coniferous trees that enables them to survive drought better than deciduous trees |
| 40 | Skills | C | 80.5 |  <br> Forests | Determine titles for four sections of a concept map that lists several benefits of trees and forests |
| 41 | Skills | C | 70.7 | Trees \& Forests | Use a concept map to determine which sections of a report will most likely incorporate information about photosynthesis |
| 42 | Skills | A | 77.8 | Trees \& Forests | Determine the names of two trees by using an identification key |
| 43 | Knowledge | C | 64.1 | Trees \& Forests | Identify the part of a tree through which most water is lost |
| 44 | Skills | D | 51.5 | Inquiry \& Problem Solving | Identify a controlled variable in a given investigation |
| 45 | Skills | B | 46.9 | Inquiry \& Problem Solving | Determine $\mathrm{f}^{\mathrm{r}} \mathrm{Om}$ a list the appropriate procedures that are necessary to perform a given experiment |
| 46 | Skills | B | 66.1 | Inquiry \& Problem Solving | Interpret information shown on a graph to determine the growth of a plant over a given time |
| 47 | Knowledge | D | 54.6 |  <br> Forests | Identify characteristics of deciduous trees |
| 48 | Knowledge | B | 53.9 | Trees \& Forests | Recognize an example of a producer |
| 49 | Skills | A | 70.6 |  <br> Forests | Determine the perspective represented by an environmental group |
| 50 | Skills | D | 74.6 | Trees \& Forests | Analyze a cross section of a tree and infer when growing conditions were the most favourable |

