



5th NATURAL SCIENCE OLYMPIAD

GRADE 4 TO 6

07 MAY 2015

09:00 - 12:00

INSTRUCTIONS

Please read the instructions carefully before answering the questions

This is a multiple choice paper. Please answer all the questions on the answer sheet provided. Each question is followed by answers marked A, B, C and D. **Only one answer is correct.** Choose the most correct answer and shade the corresponding circle on the answer sheet completely using an HB pencil.

NB! The answer sheets are marked electronically – do not make any other dots or marks on the answer sheet. Select only one answer for each question or your answer will be discarded. **Ensure that you shade your selection clearly.**

Note that the question numbers 1 – 100 on the answer sheet moves from top to bottom in several columns. Ensure that the number of your selection on the answer sheet corresponds with the number of the question in your examination paper. Should you make a mistake, please erase the incorrect answer completely.

The use of **non-programmable** electronic calculators is permitted.

To Avoid Disqualification - You are required to complete **all** the information requested on the answer sheet. Please complete the information in script as well as shade the corresponding blocks. If the corresponding blocks are not shaded appropriately, your results will be returned without a name and you will be disqualified. The student number allocated to you can be obtained from your teacher and consists of eight digits e.g. 08149701

Do not fold the answer sheets.

Three hours are allowed to answer the questions

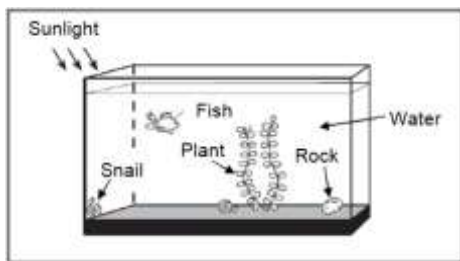
Natural Science Olympiad 2015

Grade 4 to 6

1. Which of the following energy sources is renewable?

- A Natural gas
- B Coal
- C Wind
- D Uranium

2. The picture below shows Naledi's fish tank.



Which item in the tank produces oxygen?

- A Plant
- B Snail
- C Water
- D Rock

3. This small child with the swollen stomach and skinny legs is suffering from a lack of protein in his diet. A build-up of fluid in the blood causes the stomach to swell.



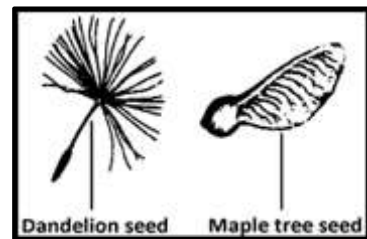
This disease is called...

- A Obesity
- B Kwashiorkor
- C Anorexia
- D Bulimia

4. Which of the following statements most accurately describes the meaning of the word "migration"?

- A When an animal has a useful feature that helps it to live in a particular habitat.
- B When an animal has a useful feature that helps it to survive in cold weather.
- C When a large group of animals move to new breeding or feeding grounds.
- D When an animal sleeps through a season such as winter.

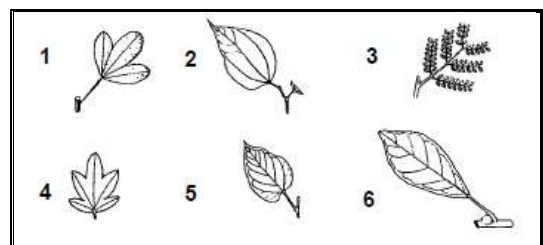
5. Two seeds are shown in the diagram below.



How are these seeds most likely dispersed in nature?

- A By wind
- B In water
- C On an animal's fur
- D Eaten by animals

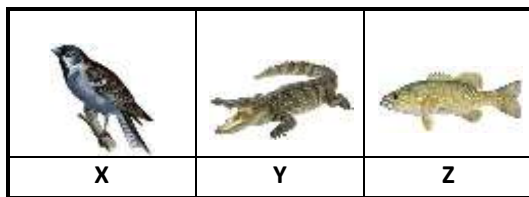
6. The following leaves could be classified (grouped) according to their shapes. If they are grouped in this way, which of the following leaves would be in the same group?



- A 1, 3 and 4
- B 2, 4 and 6
- C 3, 4 and 5
- D 2, 5 and 6

7. Which set of characteristics about the following

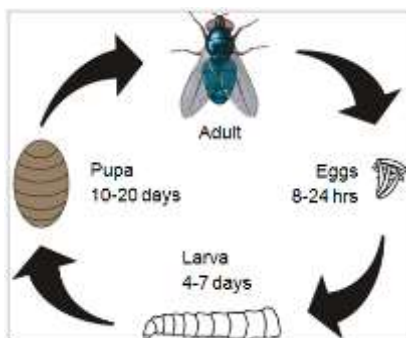
animals, represented by X, Y and Z is incorrect?



A	Body covered by feathers	Body covered by dry scales	Body covered with scales
B	Body temperature changes with the environment	Body temperature remains the same	Body temperature does not change with the environment
C	The young hatch from eggs	The young hatch from eggs	The young hatch from eggs
D	Lungs are breathing organs	Lungs are breathing organs	Gills are breathing organs

8. Which one of the following is a characteristic of parasitism?
- A One organism kills and consumes another.
 - B Two organisms live together and neither is harmed.
 - C One organism lives in or on another and benefits.
 - D Two organisms nourish each other and both benefit.

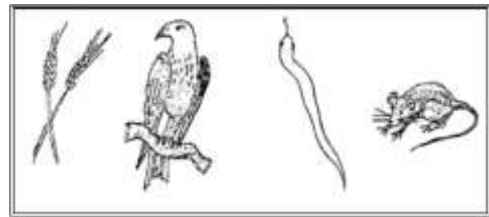
9. What is shown in the diagram below?



- A A life span
- B A population
- C A life cycle
- D A community

10. The sun shines on grass, the grass grows. Cows eat the grass and people eat the grass. There is a link between the grass, cows and people. This

link is called a food chain. The organisms shown below could form a food chain. Which one of the following would be the correct order in this food chain?



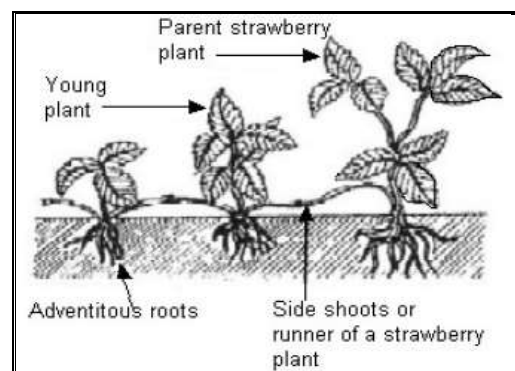
- A Grass seeds, mouse, snake, hawk.
- B Mouse, hawk, grass seeds, snake.
- C Snake, hawk, mouse, grass seeds.
- D Grass seeds, hawk, mouse, snake.

11. Into which category would you place an animal with the following features?

- Warm-blooded;
- Most young are born alive;
- Vertebrate;
- Has hair; and
- Has lungs.

- A The animal is a mammal.
- B The animal is a human being only.
- C The animal is a reptile.
- D The animal is an amphibian.

12. The given statements refer to the growth of a strawberry plant shown below:



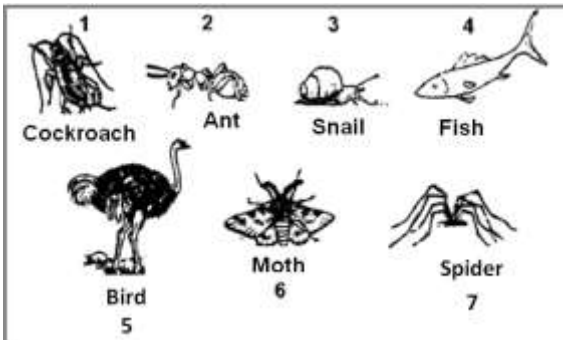
1. Grows from a leaf cutting.
2. Grows from a seed.
3. Grows from a stem cutting.
4. Shows vegetative reproduction.

Select the correct combination...

- A 1 and 4
- B 2 and 4
- C 1 and 3

D 3 and 4

Study the diagram below and use the information to answer questions 13 and 14 below:



13. Which option below shows the correct classification of the above animals into the two groups shown in the table?

	Have an exoskeleton	Are insects
A	1, 2, 6, and 7	1, 2, and 6
B	2, 4, 3, and 7	1, 2, and 3
C	1, 2, 6, and 7	1, 2, 6, and 7
D	1, 2, 4, and 5	3, 4, and 7

14. Which of the following characteristics is not true for all insects?

- A They have six legs.
- B They can fly.
- C They have compound eyes.
- D They have an exoskeleton.

The diagrams below represent the various stages in the life-cycle of a frog. Use the diagrams to answer Questions 15 and 16.



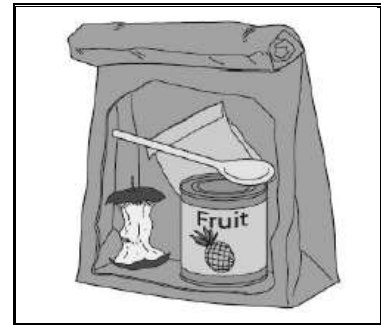
15. The stages in the life-cycle represented above take place...

- A In water only.
- B In water and on land.
- C On land only.
- D In water and in the air.

16. Which numbers show the correct sequence of the stages in the life-cycle?

- A 2 → 3 → 1 → 4
- B 4 → 2 → 3 → 1
- C 3 → 1 → 2 → 4
- D 4 → 2 → 1 → 3

17. Which item would decompose the quickest in this learner's lunch bag?



- A Fruit can
- B Apple core
- C Plastic bag
- D Wooden spoon

18. What do you associate with a marsupial?

- A Slow movement
- B Three toes
- C Jumping
- D Pouch

19. Which of the following animals can grow back its eye stalks if they are cut off?

- A Cat
- B Snail
- C Butterfly
- D Dog

20. A butterfly can only see three colours and these are...

- A yellow, green and black
- B red, green and black
- C red, yellow and black
- D red, green and yellow

21. When an infant starts to crawl, he/she uses the following sequence

- A right hand, left leg, left hand and right leg
- B right leg, left leg, right hand and left hand
- C left leg, left hand, right hand and right leg
- D right leg, right hand, left leg and left hand

22. The average person has about 100,000 hairs on their head. How many hairs does an average person lose per day?

- A About 10
- B About 100
- C About 60
- D About 200

23. The skin covering the palm of the hand of a human being is as thick as...

- A a hair
- B a notebook
- C a sheet of toilet paper
- D a five rand coin

24. What bird is the only one that is able to see the colour blue?

- A a dove
- B a bat
- C an owl
- D an ostrich

25. The figure below shows a dolphin, which is an example of a mammal.



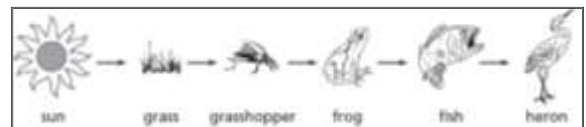
Which of the following statements is not a characteristic of a mammal?

- A They are warm-blooded.
- B They hatch from eggs.
- C They have mammary glands to produce milk for their offspring.
- D They breathe through lungs not through gills.

26. How many bones does a shark have in its body?

- A 0
- B 200
- C 140
- D 70

27. Consider the following food chain shown in the figure below.



What would most likely happen if the frog population decreased in the area?

- A The grass would grow taller.
- B The heron would have more fish to eat.
- C The fish population would increase.
- D The grasshopper population would increase.

28. A Venus Fly Trap is one of only a few plants that can eat animals. When a fly or other small animal lands on its "mouth", the Venus Fly Trap snaps shut and eat it.



Venus Fly traps can eat...

- A flies, beetles, snakes, caterpillars, and frogs.
- B flies, beetles, butterflies, tortoises, and birds.
- C lizards, beetles, butterflies, caterpillars, and frogs.
- D flies, beetles, butterflies, caterpillars, and frogs.

29. Three identical seeds are planted and grown in identical pots of soil. All three pots receive equal amounts of sunlight. The plants are watered once each day. Plant A is given 10 millilitres (ml) of water. Plant B is given 20 ml of water. Plant C is given 30 ml of water. The height of each plant is measured and recorded after ten days. Which question could be answered by this experiment?

- A How much space does a plant need to grow?
- B How much soil does a plant need to grow?
- C How much water per day will make a plant grow tallest?
- D How much sunlight per day will make a plant grow tallest?

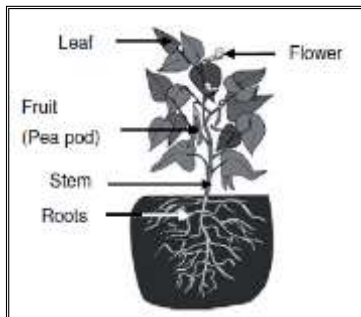
30. Which of the following animals are born blind?

- A Dogs
- B Cats
- C Rabbits
- D Bats

31. Which of the following are mainly digested in the stomach?

- A carbohydrates
- B Proteins
- C Fats
- D Lipids

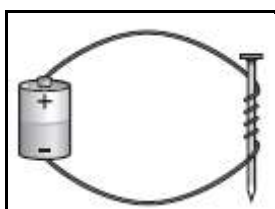
32. Study the diagram of the pea plant below and answer the question that follows:



A plant's stem is used to...

- A Absorb water and minerals from the soil.
- B Anchor the plant in the soil.
- C Produce seeds for the plant.
- D Support the plant.

33. Students made an electromagnet by wrapping a wire in loops around an iron nail and attaching the wire to a battery as shown in the figure below.



An electromagnet

The students conducted a test to learn how the number of wire loops affected the number of paper clips held by the electromagnet. The table below shows the results of the test.

Number of Wire Loops	Number of Paper Clips Held
10	2
20	4
30	7
40	9

Based on the information in the table, which of the following is the best conclusion?

- A Adding more wire loops makes an electromagnet weaker.
- B Adding more wire loops makes an electromagnet stronger.
- C Adding more wire loops makes an electromagnet use more electricity.
- D Adding more wire loops makes an electromagnet use less electricity.

34. The Cahora Bassa dam, that generates hydroelectric power, is situated in the Zambezi river in Mozambique. It is one of the main sources of electricity in South Africa.

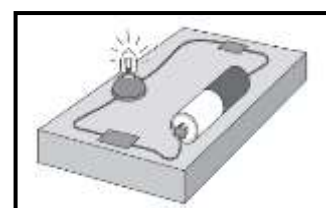


The Cahora Bassa dam in Mozambique

The amount of electricity (power) it produces is about ...

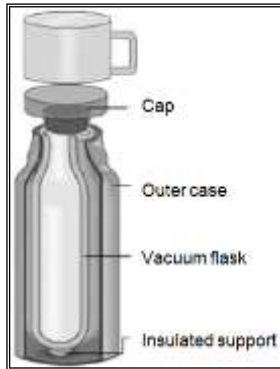
- A 2000 MW
- B 20 MW
- C 40 000 MW
- D 19 200 MW

35. A circuit is a path taken by electrical current. A circuit with no breaks is called...



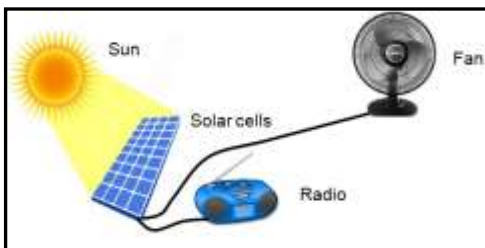
- A An open system
- B A parallel system
- C A closed system
- D A series system

36. Which statement best explains why the contents of a flask still remains hot after a period of time?



- A A flask contains a heat source which pumps constant heat.
- B The heat is trapped inside the flask and cannot escape.
- C The cold air cannot enter the flask to cool the contents of the flask.
- D A vacuum between the two walls prevents heat from escaping.

37. The illustration below shows an example of energy changing forms. Which changes in energy form are shown in the diagram?



- A Electrical → sound → light and mechanical
- B Sound → mechanical → light and electrical
- C Mechanical → light → sound and electrical
- D Light → electrical → mechanical and sound

38. The picture below shows two types of insulators, ceramic rings and hardened plastic rings.

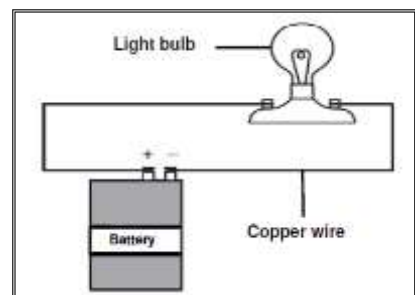


Which statement(s) about insulators is (are) correct?

- (i) Insulators protect people and other living organisms from electric shock.
- (ii) Insulators also protect appliances from damage.
- (iii) Insulators allow the flow of electric current through them.
- (iv) Insulators prevent conducting wire from making electrical connections with other metal objects.

- A Only (i)
- B All except (iii)
- C (i) and (iv)
- D Only (iii)

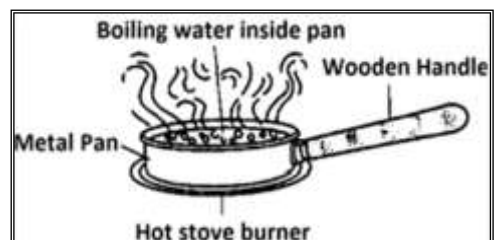
39. The diagram below shows an electric circuit.



The purpose of the copper wire is to...

- A Conduct electricity
- B Produce electricity
- C Store electricity
- D Stop the flow of electricity

40. The picture below shows water boiling in a metal pan on a hot stove/burner.



Why is the handle made of wood?

- A Wood does not conduct electricity.
- B Wood is a poor conductor of heat.
- C Wood is cheaper.
- D The pan would not be too heavy.

41. Which one of the following statements is correct regarding molecules in a gas, and that of a liquid?

- A Molecules in a liquid are more tightly packed than molecules in a gas.
- B Molecules in a liquid cannot move, but molecules in gas can.
- C Molecules in a gas are more tightly packed than molecules in a liquid.
- D Molecules in a gas cannot move, but molecules in a liquid move.

42. Mass, weight, hardness, colour, temperature and texture, are some of the properties that might change when a material is either heated or cooled. If an ice cube was put in a pan and placed in a warm room for one hour, the physical properties of the ice cube that will change as it melts to a liquid are:

- A mass and weight
- B weight and temperature
- C hardness and texture
- D mass and colour

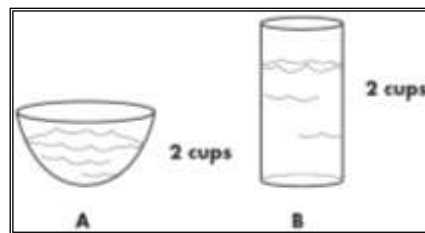
43. Five (5) grams of baking soda and 20 grams of vinegar are added together. A bubbling reaction starts. When the reaction is over, the solution weighs 24 grams. Why has the weight changed?

- A A gas has formed and escaped from the mixture.
- B The vinegar has evaporated.
- C The new solution was lighter.
- D Baking soda is lighter when dissolved in vinegar.

44. Students want to test how the temperature changes each day throughout the year. Which of the following does **not** have to be kept the same during the test?

- A The place where the temperature is measured
- B The thermometer used to take the measurement.
- C The person reading the temperature measurement.
- D The time of day when the temperature is measured.

45. Two cups of water are poured into each of the open containers as shown in the figure below. The open containers are then put on a table and left for two days.



Containers A and B each containing 2 cups of water.

Predict what will happen to the amount of water in each container after two days have passed.

- A The same amount of water will be left in both.
- B There will be more water left in container B than in A.
- C There will be more water in container A than in B.
- D They will both still have two cups of water.

46. Different metals expand with different amounts for the same temperature rise. A bimetallic strip is made from two different metals joined together. The effect of heating a bimetallic strip is shown in the diagram shown below.

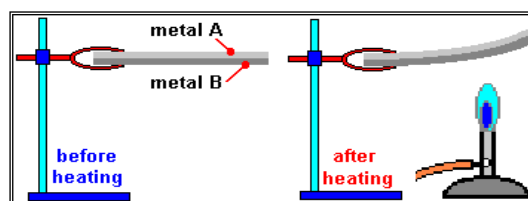


Figure: Metals A and B before and after heated.

The table below shows the length increase in mm after heating 2 metre strips of the different metals by 10°C.

Metal	Aluminium	Brass	Copper	Steel
Increase in length (mm)	0.49	0.40	0.25	0.22

Which pair of metals was used in the experiment illustrated?

- A metal A = aluminium, metal B = steel
- B metal A = copper, metal B = brass
- C metal A = aluminium, metal B = copper
- D metal A = Brass, metal B = steel

47. Large industries like coal fired power plants contributed to an increase of carbon dioxide in the atmosphere. What is a possible effect that

an increased amount of carbon dioxide is likely to have on our planet?

- A Too much acid rain.
- B Damage of the ozone layer.
- C A cooler climate.
- D A warmer climate.

48. Melting and dissolving are examples of...

- A Permanent changes.
- B Formation of new substances.
- C Temporary and permanent changes.
- D Temporary changes.

49. Which is believed to be the current major cause of the so-called 'Greenhouse Effect'?

- A Reduction of the ozone layer.
- B Increased volcanic activity.
- C Increase in cloud cover above the Earth.
- D Burning fossil fuels.

50. The Sun is classified as...

- A a star
- B a planet
- C a burning rock
- D a giant comet

51. Energy from the Sun reaches Earth mainly by the process of...

- A Conduction
- B Reflection
- C Convection
- D Radiation

52. Devices that orbit the Earth and are used to transmit information about our planet, like climate changes, TV signals, and other communication networks are called...

- A Comets
- B Asteroids
- C Meteors
- D Satellites

53. This image is an artist's drawing of the Cassini spacecraft approaching the planet Saturn and its magnificent rings.



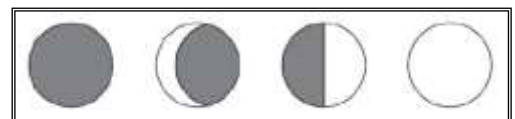
Which statement below is true about the rings?

- A The rings are what is referred to as the Milky Way.
- B The rings are made of tiny particles and larger rocks spread out and spinning around the planet.
- C The rings are merely gas vapour since Saturn is a gas planet.
- D The rings show the path taken by Saturn's 62 moons as they orbit around it.

54. What do we call "the spinning movement of an object around its own axis"?

- A Orbit
- B Axis
- C Revolution
- D Rotation

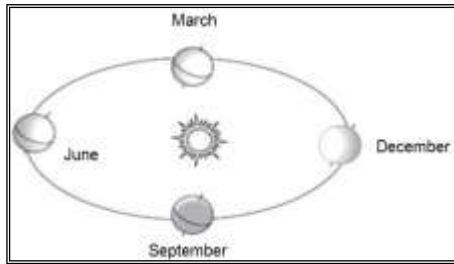
55. The diagram below shows the various phases of the moon.



Select the correct order of these phases (from left to right) on the diagram.

- A Full Moon, First Quarter, Half Moon, New Moon
- B New Moon, Waxing Gibbous, Waning Gibbous, Full Moon
- C Full Moon, Waning Crescent, Third Quarter, Empty Moon
- D New Moon, Waxing Crescent, First Quarter, Full Moon

56. The amount of direct sunlight which the Northern Hemisphere receives changes throughout the year. The diagram below shows the Earth revolving around the Sun.



In which month will the Northern Hemisphere receive the greatest amount of direct sunlight?

- A March
- B June
- C September
- D December

57. Earth is constantly spinning on its axis. What would happen if the Earth spun faster?

- A Days would be colder.
- B Days would be shorter than 24 hours long.
- C Days would be hotter.
- D Days would be longer than 24 hours long.

58. The universal force which tries to press us towards the centre of the Earth is called...

- A Pressure
- B Gravity
- C Density
- D Weight

59. The solar system consists of the Sun and all the planets that orbit around it.



Study each of the following statements...

- (i) **The force of gravity between the Sun and each planet keeps them moving in their orbits.**
- (ii) **The Sun is so big and heavy that it can exert a force of gravity that pulls even the furthest planet into its orbit.**
- (iii) **In the solar system, each object's force of gravity repels all the other objects.**

Which of the above statements are correct

about why the planets all keep moving in orbits around the Sun?

- A All statements are correct
- B Only (i) is correct
- C All statements except (iii) are correct
- D None of these statements are correct

Refer to the picture below and answer Questions 60, 61 and 62. (Picture not to scale)



60. Which planet is not one of the inner rocky planets of our solar system?

- A Venus
- B Jupiter
- C Mercury
- D Mars

61. Which one of the following gases does not make up the outer gas planets...

- A Hydrogen
- B Oxygen
- C Helium
- D Methane

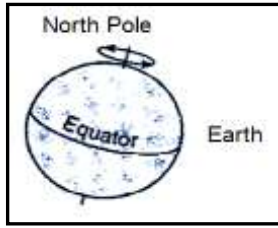
62. What is the name of the planet which lies furthest away from the Sun in our solar system?

- A Mercury
- B Saturn
- C Uranus
- D Neptune

63. What is the length of the equatorial diameter of the Earth?

- A 15 000 kilometers
- B 12 756 kilometers
- C 10 500 kilometers
- D 36 525 kilometers

64. The Earth's axis is an imaginary line that runs through the centre of the Earth. The direction of the axis is from...



Planet Neptune

- A East to West
 B South to East
 C North to South
 D West to East
65. Which statement best describes what **asteroids** are?
- A Stars that travel very fast and often are on a collision path with Earth.
 B Lumps of rock from planets that broke up long ago and orbit around the Sun.
 C Human space travelers who work and stay in space stations for long periods.
 D Angry planets that have fallen out of orbit.
66. The day and night is formed because...
- A The Sun moves around the Earth.
 B The Earth moves around the Sun.
 C The Earth rotates on its axis.
 D The Sun shines on Earth.
67. Which two planets are out of order in this list of planets in our solar system? The planets are listed in order of distance from the closest to the furthest from our Sun.
- Mercury → Earth → Venus → Mars → Jupiter → Saturn → Uranus → Neptune
- A Mercury and Earth
 B Earth and Venus
 C Saturn and Jupiter
 D Uranus and Neptune
68. The length of a planet's day is defined by its...
- A mass
 B period of rotation
 C density
 D period of revolution
69. In our Solar System, **Neptune** planet is well known to be
- A the windiest
 B the coldest
 C closest to the Sun
 D the hottest
70. The colour of a star is mainly determined by its ...
- A distance from the person observing it
 B Temperature
 C Size
 D Age
71. Which one of the following statements is correct about the Moon?
- A The Moon is a planet.
 B The Earth revolves around the Moon.
 C The Moon is half the size of the Earth.
 D The Moon rotates on its axis approximately once every 27 Earth days at its equator.
72. Which planet has the highest mountain and volcano in the entire solar system?
- A Mercury
 B Pluto
 C Earth
 D Mars
73. An astronaut has a mass of 60 kilograms before she takes off in her spaceship. What will her mass be when she reaches Earth orbit, and when she lands on the Moon?
- A Her mass when she reaches the Earth orbit will be 0 kg, and on the Moon her mass will be smaller than on Earth.
 B Her mass when she reaches the Earth orbit will be much smaller than on Earth, and on the Moon her mass will be smaller than on Earth.
 C Her mass when she reaches the Earth orbit will be 0 kg, and on the Moon her mass will be the same as on Earth.
 D Her mass will be the same as on Earth when she reaches the Earth orbit, and on the Moon.

74. Which stars do we always see during the year?
- A Stars on the horizon.
 - B Stars over the North Pole.
 - C Stars in the larger constellations.
 - D Stars inside other galaxies.
75. Which one of the following is the smallest planet in size and mass, also known as a dwarf planet?
- A Pluto
 - B Sun
 - C Mercury
 - D Earth
76. What would happen to Earth if it started going faster around the sun?
- A It would fall into the sun.
 - B It would travel away from the sun.
 - C Its gravity would decrease.
 - D Its gravity would increase.
77. When was the **South African Astronomical Observatory (SAAO)**, situated in Cape Town, and regarded as the national centre for optical and infrared astronomy in South Africa, established?



The South African Large Telescope (SALT) in Sutherland, Northern Cape

- A 1820
 - B 1976
 - C 1974
 - D 1972
78. What is the hottest planet in the Solar System?
- A Mars
 - B Venus
 - C Mercury
 - D Earth
79. The crews of two boats at sea can communicate with each other by shouting. Why is it impossible

for the crews of two spaceships at similar distance apart, to do the same?

- A Because the sound is reflected, more in space.
 - B Because the pressure is too high inside the spaceships.
 - C Because the spaceships are travelling faster than sounds.
 - D Because there is no air in space for sound to travel through.
80. When did the Virgin Galactic Spaceship Two, a British commercial space craft owned by Sir Richard Branson, crash?
- A 25 September 2004
 - B 31 October 2014
 - C 18 July 1950
 - D 01 November 2014
81. Why is travelling in space difficult for people?
- A We cannot take the air or food we need into space.
 - B It is impossible to escape the Sun's or Earth's gravity.
 - C We do not have a destination to visit that we know will support life.
 - D The distances are very great; it is dangerous and expensive.
82. The figure below shows the first MeerKAT antenna being wheeled out of its hangar in March 2014, ready to be positioned at the telescope's site near Carnarvon in the Northern Cape.



The first antenna (MeerKAT) for the Square Kilometre Array (SKA) project being wheeled out of the hangar, transported and erected by a massive crane in the Karoo desert.

- When fully completed, how many antennae will the Meerkat project consist of?
- A 64
 - B 50

- C 100
- D 120

83. When did the space monkey "Baker" travel with Jupiter IRBM into space?



"Baker" sitting on a model of Jupiter IRBM

- A 1947
- B 2007
- C 1959
- D 1951

84. On Earth, heat travels by radiation, convection, and conduction, but in space heat travels by _____ only.

- A radiation
- B convection
- C conduction
- D None of the above

85. Neil Armstrong was the first person to set foot on the moon. Part of his mission instructions was to take as many photos as he could during his brief stay on the moon. How long did he stay on the moon?

- A 30 days and 3 hours
- B 5 hours and 20 minutes
- C 10 days and 5 hours
- D 2 hours and 31 minutes

86. A "space spinoff" is...

- A when 2 spaceships spin in space.
- B something developed for use on Earth that has uses in space.
- C when a spacecraft crashes before entering orbit.
- D something developed for use in space that has uses on Earth.

87. In which year were plants first taken into Earth's orbit?

- A 1960
- B 1990

- C 1996
- D 1998

88. Besides planets, moons and stars, what else is found in space?

- A Tiny particles that make up the solar wind, hydrogen atoms, sound, and bits of rubble as big as small moons.
- B Tiny particles that make up the solar wind, hydrogen atoms, birds, and bits of rubble as big as small moons.
- C Tiny particles that make up the solar wind, hydrogen atoms, trees, and
- D Tiny particles that make up the solar wind, hydrogen atoms, and bits of rubble as big as small moons.

89. How long did Mark Shuttleworth spend training at Russia's Star City at the Yuri A Gagarin State Scientific Research and Testing Cosmonaut Training Centre before becoming the first African in space in 2002?



Mark Shuttleworth, the 1st African and only 2nd private citizen to self-fund a journey to space.

- A Five years
- B Three years, six months
- C One year, seven months
- D One year

90. The seismograph is most useful for studying earthquakes because it can ...

- A predict the weather
- B prevent an earthquake
- C measure the strength of vibrations
- D change the intensity of earthquakes

91. The correct order in which fossil formation takes place is:

- A Soft body parts decay, sediments are deposited and cover organisms, sediments

and hard parts become rock.

- B Sediments are deposited and cover organism, soft body parts decay, sediments and hard parts become rock.
- C Hard and soft body parts decay and become rock.
- D Sediments cover organism and all body parts decay.

92. Below is a series of **steps that produce a sedimentary rock** like sandstone, but the steps are in the wrong order.

- (1) Grains of rock moved by water.
- (2) Water squeezed out and the rock grains stick together.
- (3) Rocks are weathered and eroded.
- (4) Layers of sediment buried and compressed.
- (5) Grains of rock laid down as sediment.

Which one of the following is the **correct sequence** to show the sedimentary rock formation?

- A (5) (4) (1) (2) (3)
- B (3) (1) (5) (4) (2)
- C (1) (3) (2) (5) (4)
- D (4) (5) (1) (3) (2)

93. The diagram below shows the effect of a river on an area of land over many years.

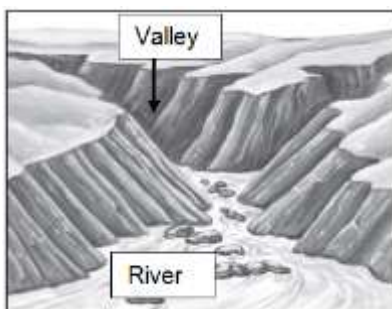


Figure: Another form of a landscape.

Which process caused the valley to form?

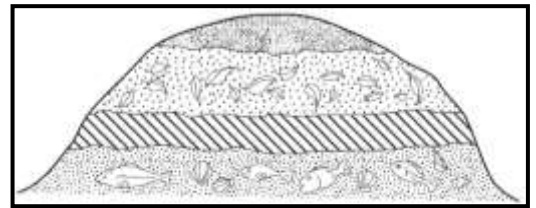
- A condensation
- B deposition
- C erosion
- D evaporation

94. Which description closely matches a typical metamorphic rock?

- A Softish, porous or crumbly rock, usually made from compacted grains of mineral material and often containing fossils.

- B Usually a non-porous hard wearing rock with a variety of crystal sizes, some only visible under a microscope, never containing fossils.
- C Usually porous and often shows a crystalline structure of layers of grains, sometimes contains distorted fossils due to effect of heat and pressure.
- D All of them.

95. The picture below shows four different rock layers in a hillside.



Different layers of a rock in a hillside.

What is the best evidence that one of these layers of rock was formed under an ocean?

- A The thickness of the layer.
- B The type of fossils in the layer.
- C The number of caves in the layer.
- D The height above sea level of the layer.

96. On which day is the Earth Day held?

- A April 27
- B June 18
- C April 22
- D July 18

97. Every year in South Africa, a special day is set aside to encourage people to plant trees in their neighborhoods. What is this day called?

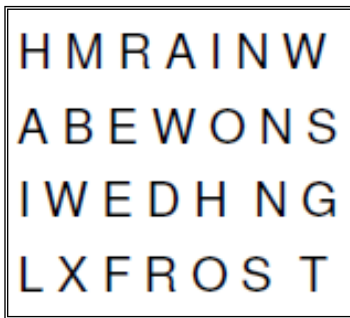
- A Spring Day
- B Special Tree Day
- C Arbor Day
- D Garden Day

98. Which one of these animals **naturally** lives **only** in Africa?

- A Wolf
- B Zebra
- C Sparrow
- D Elephant

99. When water falls onto the Earth, we call it precipitation. It can fall in different forms. Use

the word block to find examples of the different forms of precipitation. You may read the words up, down, forwards or backwards to identify all the forms hidden in the word block.



The total number of examples of precipitation given in the block is:

- A 2
- B 3
- C 4
- D 5

100. **Mossgas** is a South African company that turns gas into...

- A Liquid fuel
- B Oil
- C Solids
- D Water

The End