



Grade 5

WORLD SCIENCE CHAMPIONSHIP 2024

Total Questions: 50

Total Marks: 50

Time: 1hr

Set: B

General Instructions for the Examinee

Opening Instructions:

Welcome to the world Maths Championship. Before we commence, please pay close attention to the following instructions:

- Electronic devices such as cell phones and MP3 players must be turned off.
- Do not share or exchange materials with other students.
- Unauthorized aids are strictly prohibited and its use can lead to disqualification.
- Calculators are not allowed for Grade 1-5
- Scientific Calculators are allowed for Grade 6-8
- Refrain from consulting notes, textbooks, teachers, or other students regarding the exam materials.

Instructions for Filling Student Details in OMR Sheet and Signing the Attendance sheet:

There will be a ten-minute break for students to fill in the details

Filling Student Details:

- Please refer to the instructions at the back of the OMR sheet for proper completion your details.

Signing Attendance sheet:

- Ensure you have signed the attendance sheet and OMR sheet provided.
- Invigilator should also sign your OMR sheet in the space provided.

marks - Total 35 marks.

- Grades 5 to 8: 50 questions of 1 mark each, there is no negative marking and if you skip/leave a question no marks will be given but also no marks will be deducted as -ve marks - Total 50 marks.

- Darken the circle corresponding to your chosen answer on the OMR sheet.
- Ensure you darken circles completely. Questions that do not have the darker circle are considered unanswered and will be counted wrong.
- You have 60 minutes to complete the exam.
- Note that you can choose only one answer – if you mark another response, that question will be disqualified.
- If you finish before the time is up, raise your hand, and the invigilator will collect your sheet for scoring. When you are finished and your OMR Sheet is collected, please leave the room quietly.

Instruction for Taking Examination:

- The question paper has been sealed by a reverse jacket. You have to cut on the right side to open the paper at the time of commencement of the examination. Check whether all the pages of the question paper are intact.
- This Examination is multiple-choice based, with either 4 options, 3 options or 2 options for each question.
- Each grade level has specific question formats and durations:
 - Grades 1 to 4: 35 questions of 1 mark each, there is no negative marking and if you skip/leave a question no marks will be given but also no marks will be deducted as -ve

Thank you for your attention, and best of luck with the World Maths Championship!

Question: 1 of 50

QID: 105

Marks : 1

Which property do these four objects have in common?
Select the best answer.



yarn pom pom



slippers



tennis ball



kiwi

- A. Stretchy B. Fuzzy
- C. Translucent

Question: 8 of 50

QID: 107

Marks : 1

Complete the sentence. Building a tower out of magnetic blocks is a _____

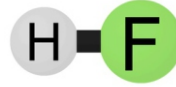
- A. physical change B. chemical change

Question: 9 of 50

QID: 567

Marks : 1

Select the chemical formula for this molecule.



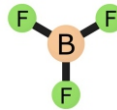
- A. F_2 B. F
- C. HF D. HF_2

Question: 10 of 50

QID: 568

Marks : 1

Select the chemical formula for this molecule.



- A. BF_2N B. BF_3
- C. BF_4 D. F

Question: 11 of 50

QID: 592

Marks : 1

teacher and student find a book to read. The teacher uses a force to pull the book off of the bookshelf. What is the direction of this pull?



- A. away from her hand B. toward her hand

Question: 12 of 50

QID: 595

Marks : 1

boy shops for groceries. He uses a force to push the shopping cart with his hands. What is the direction of this push?



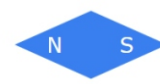
- A. away from his hands B. toward his hands

Question: 13 of 50

QID: 618

Marks : 1

Two magnets are placed as shown. Will these magnets attract or repel each other?



- A. attract B. repel

Question: 2 of 50

QID: 207

Marks : 1

Which property do these four objects have in common?
Select the best answer.



bowling ball



gold nugget



sandpaper



acorn

- A. opaque B. flexible
- C. rough

Question: 3 of 50

QID: 527

Marks : 1

A brick has a volume of 50 cubic centimeters and a mass of 100 grams. What is its density _____ Grams per cubic centimeter

- A. 2 B. 4
- C. 6 D. 8

Question: 4 of 50

QID: 528

Marks : 1

A gold necklace has a mass of 36 grams and a volume of 2 cubic centimetres. What is its density? _____ grams per cubic centimetre.

- A. 17 B. 18
- C. 19 D. 20

Question: 5 of 50

QID: 539

Marks : 1

Two 120-gram bottles of water are identical except for their temperatures. Which bottle of water has more thermal energy?

- A. the hotter bottle of water B. the colder bottle of water

Question: 6 of 50

QID: 540

Marks : 1

Two paper towels have the same temperature but different masses. Which towel has more thermal energy? The objects are made of the same type of matter.

- A. the paper towel with more mass B. the paper towel with less mass

Question: 7 of 50

QID: 106

Marks : 1

Complete the sentence. Mixing copper and tin to make bronze is a _____.

- A. physical change B. chemical change

Question: 14 of 50

QID: 116

Marks : 1

Complete the sentence. Dragging a bow across the strings of a violin converts energy of motion to_____

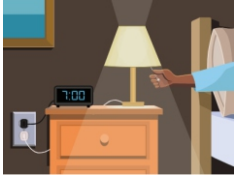
- A. sound energy B. light energy
 C. electrical energy

Question: 15 of 50

QID: 171

Marks : 1

"Beep! Beep! Beep!" Dylan's alarm clock wakes him up. He turns on his lamp. Then he goes to the kitchen and makes some toast for breakfast. Dylan used several devices that require energy. Each of these devices converts electrical energy, or electricity, into one or more different forms. Which is the best example of converting electrical energy to light energy?




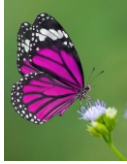


- A. an alarm beeping B. turning on a lamp
 C. toasting bread

Question: 16 of 50

QID: 718

Marks : 1

Select the bird.

- A.  B. 
 C.  D. 

Question: 17 of 50

QID: 126

Marks : 1

This organism is *Buteo jamaicensis*. It is also called a red-tailed hawk. Which is this organism's scientific name?



- A. *Buteo jamaicensis* B. red-tailed hawk

Question: 18 of 50

QID: 146

Marks : 1

Which organ controls the function of other body organs?

- A. heart B. lungs
 C. brain D. skeleton

Question: 19 of 50

QID: 156

Marks : 1

People use bamboo plants for food. We usually eat the part of this plant that supports the plant. It carries food, water, and nutrients through the plant. Which part of the bamboo plant do we usually eat?



- A. the stem B. the leaves
 C. the root


Question: 20 of 50

QID: 728

Marks : 1

Mozambique spitting cobras are snakes. Their predators include mongooses and secretary birds. The cobra uses its neck to appear large and scary to a predator. Which animal is also adapted to use its neck to appear large and scary to a predator?



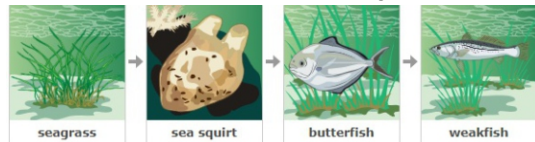
- A.  B. 
bearded dragon slow worm

Question: 21 of 50

QID: 478

Marks : 1

This diagram shows a food chain from Chesapeake Bay, an estuary ecosystem in Maryland and Virginia. In this food chain, the butterfish is a **secondary consumer**. Why?



- A. it eats a producer B. it eats a tertiary consumer.
 C. it eats a primary consumer

Question: 22 of 50

QID: 476

Marks : 1

Select the cold desert ecosystem.



- This ecosystem has:
1. Warm summers and warm winters.
 2. A rainy season and a dry season.
 3. Soil that is poor in nutrients.



- This ecosystem has:
1. A small amount of rain or snow.
 2. Dry, thin soil.
 3. Long, cold winters.



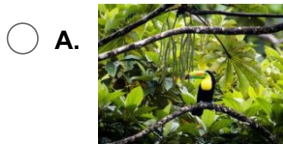
- This ecosystem has:
1. Warm, wet summers and cold, wet winters.
 2. Soil that is rich in nutrients.
 3. Only a few types of trees.

Question: 23 of 50

QID: 477

Marks : 1

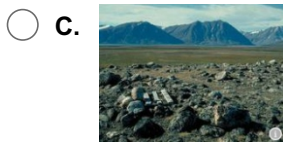
Select the tropical rain forest ecosystem.



- This ecosystem has:
1. Year-round rain and warm temperatures.
 2. Soil that is poor in nutrients.
 3. Many different types of organisms.



- This ecosystem has:
1. Hot summers and cool winters.
 2. A medium amount of rain.



- This ecosystem has:
1. A small amount of rain or snow.
 2. Dry, thin soil.
 3. Long, cold winters.

Question: 24 of 35

QID: 459

Marks : 1

Imagine you have a friend, Marsella, who lives near the coast. You read a social media post from Marsella. Her post includes an article about sea turtles. What is the main purpose of this article?



I love sea turtles! My county is trying to protect them.

Lights out: sea turtle rule proposed

Jasper Gutierrez, Sun and Sand Local Times



Chelonia County officials have proposed a new law to protect baby loggerhead sea turtles. The law would limit artificial light visible from beaches after dark.

Artificial light, such as light from streetlights, house lights, or bonfires, can put sea turtles in danger. The artificial light can confuse baby sea turtles on the beach. Confused baby sea turtles may crawl into the road and be run over by cars. The turtles may also be eaten by crabs, birds, or raccoons.

The proposed law applies to all artificial light visible from county beaches. Lights would have to be turned off or covered from sunset to sunrise. Both indoor and outdoor lights would be affected. Bright flashlights and flash photography also would not be allowed.

The law was drafted by the state Department of Natural Resources' Sea Turtle Conservation Program.

Like Comment Share

- A. to describe predators that eat baby sea turtles
- B. to persuade readers to protect wildlife
- C. to inform people about a law that may be passed
- D. to explain how laws are passed in chelonia county

Question: 25 of 50

QID: 401

Marks : 1

Dolerite has the following properties:

1. Not a pure substance,
 2. Not made by living things,
 3. No fixed crystal structure,
 4. Naturally occurring,
 5. Solid,
- Is dolerite a mineral?



- A. yes
- B. no

Question: 26 of 50

QID: 402

Marks : 1

Complete the paragraph. Earth's surface is made mostly of rock. Water, wind, and ice can break down this rock to form _____

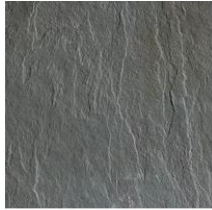
- A. bigger pieces
- B. loose pieces
- C. melted rock

Question: 27 of 50

QID: 403

Marks : 1

This picture shows a desert in Asia. A desert is an environment that does not get much rain or snow. Which rock is more likely to form from sediment deposited in a desert?

 A.

Shale forms from layers of mud.

 B.

Sandstone forms from layers of sand.

Question: 32 of 50

QID: 251

Marks : 1

Does this passage describe the weather or the climate? It has not rained in over a week at Leah's house.

 A. weather B. climate**Question: 33 of 50**

QID: 241

Marks : 1

Is the following statement true or false? The biosphere includes all of Earth's water.

 A. true B. false**Question: 34 of 50**

QID: 242

Marks : 1

Is the following statement true or false? The biosphere includes the layer of gas surrounding Earth's surface.

 A. true B. false**Question: 35 of 50**

QID: 243

Marks : 1

Is the following statement true or false? The atmosphere includes all of Earth's rocks and minerals.

 A. true B. false**Question: 28 of 50**

QID: 387

Marks : 1

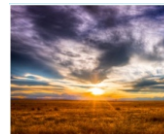
Complete the sentence. Fossils are _____ of ancient organisms.

 A. human-made models B. preserved remains of the body parts or activities. C. the living tissues**Question: 36 of 50**

QID: 333

Marks : 1

mountain is a large landform that rises high above the surrounding land. A mountain often has steep sides. Sometimes a mountain is so tall that cold air at the top causes snow to fall. Select the mountain. Select the mountain.

 A. B. C.**Question: 29 of 50**

QID: 388

Marks : 1

Select the fossil.

 A.

dinosaur model made of plastic

 B.

drawing of a dinosaur

 C.

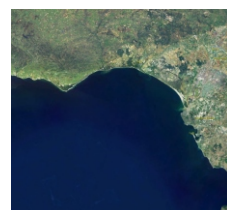
dinosaur remains preserved in rock

Question: 37 of 50

QID: 334

Marks : 1

canyon is a deep and narrow landform. A canyon has steep cliffs on both sides. Sometimes, a canyon has a river running through it. Select the canyon.

 A. B. C.**Question: 30 of 50**

QID: 249

Marks : 1

Does this passage describe the weather or the climate? Many tropical rain forests get about 15 feet of rain each year.

 A. weather B. climate**Question: 31 of 50**

QID: 250

Marks : 1

Does this passage describe the weather or the climate? Kathleen lives in a town with hot summers and freezing cold winters.

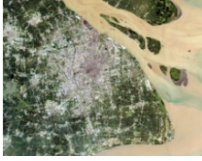


 A. weather B. climate

Question: 38 of 50

QID: 236

Marks : 1

An isthmus is a narrow strip of land with water on each side. An isthmus acts like a bridge, connecting two larger pieces of land. Select the isthmus.

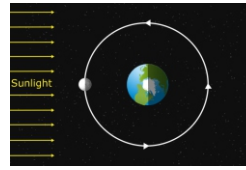
- A. 
- B. 
- C. 



Question: 41 of 50

QID: 229

Marks : 1

The model below shows the Moon at one position in its orbit around Earth. The white half of the Moon shows the part that is lit up by the Sun. Select the phase of the Moon shown in the model.



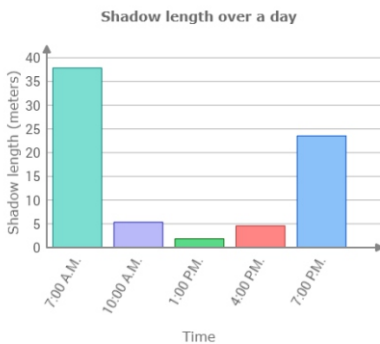
- A. 
new
- B. 
full

Question: 39 of 50

QID: 227

Marks : 1

There is a Japanese maple tree in Sarah's front yard. Sarah has noticed that the length and direction of the tree's shadow changes throughout the day. One day in August, Sarah measured the length of the tree's shadow every three hours. She made a bar graph from her data. About how long was the shadow at 10:00 A.M.?



- A. 38 meters
- B. 23 meters
- C. 5 meters
- D. 2 meters

Question: 42 of 35

QID: 1636

Marks : 1

There are many ways to solve the flooding problem in the lunchroom. But not all of them will work for Sunset School. To choose the best solution, the school must think about the constraints of the problem. A **constraint** is something that holds you back from taking a certain action. For example, cost can be a constraint. If something costs more money than you have, you won't be able to buy it right away. Several parents and teachers form a planning team to help solve the flooding problem. The team receives the following letter from the principal: To the Planning Team:

Thank you for working with me to solve the flooding problem at our school. As you think of ideas to solve this problem, please keep these two constraints in mind: We cannot build any new buildings. That would cost too much money. It would also take too long. We can make changes only to our school. We are not allowed to make changes to other parts of the city, including the area next to the river.

Sincerely, Dr. Rogers

Based on these constraints, what can the school do to solve the flooding problem?

- A. build a new lunchroom uphill from the river to keep the water from reaching the lunchroom
- B. build a wall along the river to keep the river from overflowing
- C. block the lunchroom doors to stop water from getting in

Question: 40 of 50

QID: 228

Marks : 1

The Sun is the center of our solar system. Earth and seven other planets orbit the Sun. The Sun is a ball of hot gas that gives off light energy. Without the Sun, there would be no life on Earth. When viewed from Earth, the Sun looks like a bright ball in the sky. But what exactly is the Sun? Use these definitions to help answer this question.

star is an enormous ball of hot gas in space that gives off energy. **planet** is a large round object that orbits a star.

moon is an object that orbits a planet. What type of object is the Sun?



- A. planet
- B. star
- C. moon

Question: 43 of 50

QID: 1637

Marks : 1

Imagine a school is facing a problem caused by flooding. The lunchroom at Sunset Elementary School floods each year. When there is more than one inch of water on the ground outside, water flows under the doors and into the building. Dr. Rogers, the principal, wants to find a way to protect the lunchroom from flooding. The lunchroom is most likely to flood _____ or _____ .



- A. during a cold, clear night...during the winter months
- B. when at least three inches of snow falls... during a drought
- C. when lots of rain falls ...when a river next to the school overflows

Question: 44 of 50

QID: 1639

Marks : 1

Dr. Rogers wants to protect the lunchroom because flooding can cause problems. Which of the following problems would not be caused by flooding?

- A. Mud and sand could cover the lunchroom floor.
- B. Water could ruin the lunchroom walls and floor.
- C. Wind could blow the lunchroom roof off.

Question: 45 of 50

QID: 217

Marks : 1

How long is a tennis court? Select the best estimate.

- A. 80 inches
- B. 80 feet
- C. 80 yards

Question: 46 of 50

QID: 218

Marks : 1

How long is the Great Wall of China? Select the best estimate.

- A. 21,000 centimeters
- B. 21,000 meters
- C. 21,000 kilometers

Question: 47 of 50

QID: 219

Marks : 1

What is the mass of a dinner fork? Select the best estimate.

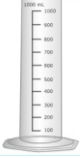
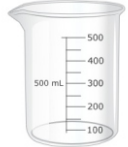
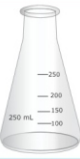

- A. 3 ounces
- B. 3 pounds
- C. 3 tons

Question: 48 of 50

QID: 371

Marks : 1

Select the Erlenmeyer flask.


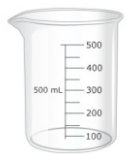


- A. 
- B. 
- C. 
- D. 

Question: 49 of 50

QID: 375

Marks : 1

Select the beaker.



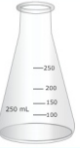
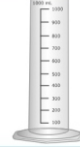
- A. 
- B. 
- C. 
- D. 

Question: 50 of 50

QID: 379

Marks : 1

Select the test tube.

- A. 
- B. 
- C. 
- D. 

--- END OF QUESTION PAPER ---