



Science Picture Quiz 5th and 6th Grade Division IAC Nationals 2025

Instructions – Mark your answers on the scantron provided. Correct answers are worth 2 points. Incorrect answers are worth –1 point. Questions left blank are worth 0 points. Write the answer to your tiebreaker question in the box at the top of your scantron.

1. What basic building block of genetics is seen in this picture?

- A. cell membrane
- B. mitochondria
- C. vacuole
- D. DNA

2. This illustration shows the location of what organ inside the human body?

- A. liver
- B. heart
- C. stomach
- D. appendix

3. This image shows what type of plant trapping an insect?

- A. pitcher plant
- B. corpse flower
- C. Venus flytrap
- D. monkey cup

4. What man, pictured here, became the first human in outer space in 1961?

- A. Yuri Gagarin
- B. Alan Shepard
- C. Neil Armstrong
- D. Buzz Aldrin

5. This picture shows what element, the only metal that is liquid at standard temperature and pressure, being poured into a container?

- A. silver
- B. copper
- C. aluminum
- D. mercury

6. What scientist, pictured here, won the 1921 Nobel Prize in Physics?

- A. Pierre Curie
- B. Albert Einstein
- C. S.N. Bose
- D. Arthur Eddington

7. The microscopic image here shows what type of plant tissue that transports nutrients and water up from the roots?

- A. xylem
- B. muscles
- C. capillaries
- D. bronchi

8. The famous 'Blue Marble' photograph of the Earth was taken by astronauts traveling to which of these in the 1970s?

- A. Skylab
- B. the International Space Station
- C. Mars
- D. the Moon

9. Geirangerfjord in Norway was created by the action of which of these?

- A. a volcano
- B. a river
- C. a glacier
- D. an earthquake

10. Chameleons like the one seen here use which of these to evade predators?

- A. sharp spines
- B. color-changing camouflage
- C. venomous teeth
- D. extreme speed

11. This image shows the cone of what type of tree?

- A. willow
- B. laurel
- C. birch
- D. pine

12. What famous three-horned dinosaur's skeleton is shown here?

- A. velociraptor
- B. tyrannosaurus rex
- C. triceratops
- D. stegosaurus

13. The right-triangle theorem of what notable Greek mathematician is depicted here?

- A. Xeno
- B. Pythagoras
- C. Marcus Aurelius
- D. Herodotus

14. Ada Lovelace, pictured here, wrote what is considered to be the very first of which of these in 1843?

- A. computer programs
- B. books
- C. newspapers
- D. poems

15. Andromeda, shown here, is an example of which of these in astronomy?

- A. solar system
- B. black hole
- C. asteroid belt
- D. galaxy

16. What central part of an animal cell is shown in blue on this electron microscope image?

- A. cell wall
- B. nucleus
- C. endoplasmic reticulum
- D. heart

17. Marie Curie, shown in a 1920 photograph, won a Nobel Prize in physics and later in what other science for discovering the elements radium and polonium?

- A. Economics
- B. Medicine
- C. Anatomy
- D. Chemistry

18. What new space vehicle shown here was launched into orbit for the first time by the US in 1981?

- A. the Space Shuttle
- B. the Saturn V
- C. the V2
- D. Crew Dragon

19. Magma becomes lava, shown here emerging from a volcano in Iceland, when which of these things happens?

- A. it kills humans or animals
- B. it reaches the surface, like in this eruption
- C. it melts other rocks
- D. it cools off and becomes metamorphic rock

20. Which type of basic solid polyhedron is shown here?

- A. pyramid
- B. torus
- C. cube
- D. sphere

21. Scientists and engineers often use a tunnel like the one seen here to test resistance to what natural force?

- A. gravity
- B. water pressure
- C. wind
- D. rain

22. What destructive weather event is seen here approaching a town in Manitoba, Canada?

- A. hurricane
- B. tornado
- C. landslide
- D. earthquake

23. What famous astronomer, pictured here, spent almost a decade under house arrest for defending the idea that the Earth revolves around the sun?

- A. Isaac Newton
- B. Alfred Nobel
- C. Galileo
- D. Edwin Hubble

24. Plasma, one of the four fundamental states of matter, is often seen on earth in the form of what phenomenon seen here?

- A. lightning
- B. wind
- C. rain
- D. clouds

25. In this image of the structure of the earth, which of these numbers is the liquid layer known as the outer core?

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

26. Jane Goodall is considered the foremost expert on what primates that she has studied for more than 60 years?

- A. lemurs
- B. kangaroos
- C. chimpanzees
- D. pangolins

27. Many people have severe allergic reactions to the venom of what insect seen here?

- A. wasp
- B. bee
- C. horsefly
- D. red ant

28. The bee seen here is covered in what substance that is important to reproduction in flowers?

- A. petals
- B. pollen
- C. sap
- D. nectar

29. This microscopic image shows the interior of what green-tinted plant organelle?

- A. chloroplast
- B. Golgi apparatus
- C. cilium
- D. cnidocyst

30. Acorns like the ones seen here contain the seeds of what keystone species tree?

- A. pine
- B. willow
- C. redwood
- D. oak

31. In 2017, the Event Horizon Telescope captured this image, which was the first ever of which of these?

- A. planet
- B. black hole
- C. star
- D. moon

32. These shells belong to animals from what phylum, the second-largest phylum of animals on Earth?

- A. tardigrades
- B. sponges
- C. segmented worms
- D. mollusks

33. The animal pictured here is endemic to which of these countries?

- A. Madagascar
- B. Australia
- C. the United States
- D. Canada

34. Caterpillars like the one seen here turn into which of these as adults?

- A. grasshoppers
- B. crickets
- C. butterflies or moths
- D. spiders

35. The volcano pictured here is of what type, known for its tall, steep sides?

- A. submarine volcano
- B. crater volcano
- C. stratovolcano
- D. basement volcano

36. The center of a hurricane or cyclone, as seen in this photo, is named after what body part?

- A. nose
- B. eye
- C. finger
- D. foot

37. Herbivores, like the cow pictured here, are animals that eat a diet consisting of which of these as adults?

- A. only milk
- B. meat
- C. both meat and plants
- D. plants

38. Katherine Johnson, pictured here, was instrumental in calculating the flight plans for Mercury missions as a mathematician for what space agency?

- A. Roscosmos
- B. NASA
- C. Blue Origin
- D. SpaceX

39. What cell structure found in plants is shown in green here?

- A. cell wall
- B. chromatid
- C. petal
- D. xylem

40. Diamonds like the ones pictured here are a form of what element?

- A. oxygen
- B. hydrogen
- C. carbon
- D. nitrogen

41. In this simple model of an atom, the blue spheres represent which of these?

- A. protons
- B. neutrons
- C. electrons
- D. isotopes

42. What planet, home to Olympus Mons and Tharsis Montes, is seen in this image?

- A. Venus
- B. Neptune
- C. Pluto
- D. Mars

43. This image shows what large primate native to Africa?

- A. spider monkey
- B. capuchin monkey
- C. orangutan
- D. gorilla

44. The blowhole of the bottlenose dolphin seen here serves a similar purpose to which of these in a human?

- A. ear
- B. nostril
- C. finger
- D. toe

45. The white, leaf-like structures around this magnolia flower are known as which of the following?

- A. petals
- B. sepal
- C. anther
- D. carpel

46. What element, shown here, is used to give natural gas an unpleasant smell and was also used to make gunpowder?

- A. lithium
- B. sulfur
- C. chlorine
- D. iodine

47. Many animals in the phylum Echinodermata, like the one seen here, are known for resembling which of these?

- A. a five-pointed star
- B. a circle
- C. a cube
- D. a pyramid

48. What scientist, pictured here, was instrumental in discovering the double-helix structure of DNA?

- A. Clara Barton
- B. Rosalind Franklin
- C. Dorothea Dix
- D. Nellie Bly

49. Beavers like the one seen here are known for building which of these on lakes and streams for protection and as homes?

- A. pyramids
- B. treehouses
- C. dams
- D. nests

50. Voyager 1 took this image of what famous feature of Jupiter in 1979?

- A. the Hurricane
- B. the Great Red Spot
- C. the Great Ice Storm
- D. the Maelstrom

51. What is the main function of the kidney, pictured here, in humans?

- A. absorbing nutrients
- B. digesting food
- C. producing urine to flush out waste
- D. respiration

52. The large mouth of a basking shark has evolved to help it catch which of these?

- A. humans
- B. plankton and small fish
- C. whales
- D. seals and bears

53. The short-beaked echidna, shown here, is native to which of these nations, also home to the koala?

- A. Peru
- B. Kenya
- C. China
- D. Australia

54. This image shows a phase of the moon known by what term?

- A. full
- B. new
- C. crescent
- D. eclipse

55. Mae Jemison holds which of these distinctions for her 1993 trip aboard the Space Shuttle Endeavor?

- A. she was the first African American woman in space
- B. she was the first American in space
- C. she was the first woman in space
- D. she was the first person to travel to space

56. The dark nebula shown here is commonly named after the 'head' of what creature?

- A. gopher
- B. horse
- C. spider
- D. crab

57. The colored part of the human eye, like the brown example here, is known by what name?

- A. eyelid
- B. rod
- C. cone
- D. iris

58. The primary food of fleas like the one seen here is which of these?

- A. other insects
- B. plants
- C. viruses
- D. the blood of their hosts

59. This image shows a ball-and-stick model of what common molecule?

- A. water
- B. carbon dioxide
- C. hemoglobin
- D. RNA

60. What chemical element is frequently used for tube-shaped lighting as seen in this image?

- A. platinum
- B. palladium
- C. neon
- D. helium

Tiebreaker

This question will only be scored if there is a tie for placement on the exam. **This is a required question, but there is no penalty for a wrong answer to this question.**

Write your answer legibly in the space provided on your scantron.

According to the most recent figures, what is the total number of per cats owned by Americans?