

2022 Stateline Junior

Game 11

Scholastic Community Outreach Program

Buzz-In Round

(1) What type of solids have atoms arranged in a highly regular lattice structure, such as salt and diamonds?

ANSWER: crystals (accept crystalline solids)

(2) Name the city where Jorn Utzon [YORN UT-son] used concrete shells to mimic harbor sails when building an iconic opera house. It is the most populous city in Australia.

ANSWER: Sydney

(3) What Congressman from Tennessee and frontiersman fought alongside William Travis and James Bowie at the Alamo, and was labeled by Disney as the “King of the Wild Frontier”?

ANSWER: Davy Crockett (accept David Crockett)

(4) Name the novel by Stephen Crane in which Jim Conklin’s death is witnessed by Henry Fleming, who becomes a Union flag-bearer after fleeing from battle during the Civil War.

ANSWER: The Red Badge of Courage

(5) What kind of event, exemplified by the K-T and Anthropocene ones, can be caused by meteor strikes or volcanic activity, and cause the elimination of entire species?

ANSWER: extinction events (accept mass extinctions)

(6) What video game by Epic recently announced a permanent “No Build” version of its signature Battle Royale game mode?

ANSWER: Fortnite

(7) What kind of writing system was created by Sequoyah for the Cherokee language and by Sejong the Great for Korean? In these systems, each separate sound is represented by a letter.

ANSWER: alphabet

(8) What British politician was nicknamed “Milk Snatcher” for abolishing free milk in schools, and was called the “Iron Lady” when she became the first female British prime minister?

ANSWER: Margaret Thatcher (accept Margaret Hilda Thatcher or Baroness Thatcher)

(9) What kind of number cannot be written as a fraction, but can be written as a decimal that never ends or repeats?

ANSWER: irrational numbers

(10) Amulets representing these insects were often placed over the hearts of mummies, possibly to represent a connection to the god Ra.

ANSWER: scarabs (prompt on “beetles” or “dung beetles”)

(11) Name the Italian city whose historic Rialto Bridge crosses one of its many canals.

ANSWER: Venice (accept Venezia)

(12) What man was played in a 2019 biography by Taron Egerton, and performed with Dua Lipa on the 2021 song “Cold Heart,” which quotes his song “Rocketman?”

ANSWER: Elton John (accept Elton Hercules John; accept Reginald Kenneth Dwight)

(13) What novel by Victor Hugo inspired a musical of the same name in which Fantine's daughter, Cosette, is raised by the reformed convict Jean Valjean?

ANSWER: Les Misérables (accept Les Mis)

(14) What musical effect is the focus of John Cage's *Four Minutes, Thirty-Three Seconds*, and can be heard when a performer "rests?"

ANSWER: silence (accept equivalents like quiet)

(15) What city's "Southland" metropolitan area includes suburbs like Irvine and Anaheim and neighborhoods like Hollywood?

ANSWER: Los Angeles (accept L.A.)

(16) Name the fictitious force that dictates the pattern of wind rotation above and below the equator and does not actually cause Australian toilets to flush "backwards."

ANSWER: Coriolis (accept Coriolis force or Coriolis effect)

(17) What city that contains Saint Peter's Basilica is encircled completely by Rome, and is independently governed by the Catholic church?

ANSWER: Vatican City

(18) Name the German astronomer who described elliptical planetary orbits in his Three Laws of Planetary Motion.

ANSWER: Johannes Kepler

(19) Which American president established the WPA and the TVA as part of his New Deal to lead the US through the Great Depression?

ANSWER: Franklin Delano Roosevelt (both underlined parts required; accept FDR; prompt on "Roosevelt")

(20) What Atlanta rapper is featured on Yachty's "Micky" and Drake's "Pikachu," and is the main artist on "Sum 2 Prove" and "Whoa?"

ANSWER: Lil Baby (accept Dominique Armani Jones)

Volleyball Round

(21) The Modified Mercalli scale measures the seismic intensity of what phenomenon, which are caused by the shifting of the lithosphere?

ANSWER: earthquake

(22) Fat Man and Little Boy were the first of what weapons to be used in combat, having been fired against Japan in 1945?

ANSWER: atomic bombs (accept nuclear bombs; accept nukes; accept a-bombs; do not accept “hydrogen bomb” or “h-bomb”)

(23) Name the Austrian composer who wrote the opera *Don Giovanni*, the *Jupiter* symphony, and the chamber piece *A Little Night Music*.

ANSWER: Wolfgang Amadeus Mozart

(24) The Volstead Act was Congress’ method of enforcing what policy, which was briefly enacted in the US by the 18th Amendment?

ANSWER: Prohibition (accept descriptions of a ban on alcoholic beverages)

(25) The horse Rocinante [ro-see-NAHN-tay] and the squire Sancho Panza accompany the windmill-hunting title figure of what 1605 book by Miguel de Cervantes?

ANSWER: Don Quixote (accept The Ingenious Gentleman Don Quixote of La Mancha; accept El ingenioso hidalgo don Quijote de la Mancha)

(26) Name the mathematical theorem whose namesake “triples,” like “three, four, and five,” are valid side lengths for a right triangle, according to the equation “a squared plus b squared equals c squared.”

ANSWER: Pythagorean (accept Pythagorean theorem; accept Pythagoras’s theorem)

(27) The 16th century leader Suleiman the Magnificent was the longest-reigning Sultan of what empire, which collapsed during World War I?

ANSWER: Ottoman Empire

(28) Vaporization is the reverse effect of what phase change, commonly seen when water vapor converts into a liquid on the surface of a cold glass on a hot day?

ANSWER: condensation (accept word forms like condensing)

(29) What extremely long novel follows the Rostov and Bolkonsky families during and after Napoleon's invasion of Russia, and was written by Leo Tolstoy?

ANSWER: War and Peace (accept Voyna i mir)

(30) What former Wichita State Shocker and Rockford native received a vote for NBA Finals MVP in 2019, when his Toronto Raptors defeated the Golden State Warriors?

ANSWER: Fred VanVleet (accept Frederick Edwin VanVleet)

(31) What kind of instrument includes the Japanese taiko [tah-ee-koh] and the Cuban conga, and are commonly used by bands to keep the beat?

ANSWER: drums

(32) The fifth Pillar of Islam is what action, an annual pilgrimage to Mecca that is required of adult Muslims who are able to undertake the journey?

ANSWER: hajj

(33) Some subatomic particles, like quarks, have a charge named for what property, which is entirely unrelated to a property of the same name studied in chromatics?

ANSWER: color

(34) Name the novel by Orson Scott Card in which Andrew Wiggin goes to Battle School to learn to fight insect-like aliens called “Buggers.”

ANSWER: Ender’s Game

(35) In France, the underground system of Lascaux [las-koh] is famous for having hundreds of what kind of artwork, particularly bulls drawn using ochre?

ANSWER: cave paintings (accept cave drawings and similar explanations of cave art)

Lightning Rounds

The categories are . . .

1. Naming Elements on the Periodic Table
2. Literary Languages
3. Asian Landmarks

NAMING ELEMENTS ON THE PERIODIC TABLE

Give the English names of elements on the periodic table from clues about their English or Latin names.

(1) Lightest element, named "water maker" for forming water when burned.

ANSWER: hydrogen

(2) Element with symbol C, whose name is from the Greek for "writing."

ANSWER: carbon (carbon is named "writing" because one of its allotropes, graphite, can be used to write on paper)

(3) Liquid, metal element named for a Roman messenger god.

ANSWER: mercury

(4) Precious, yellow metal whose symbol, "Au," is short for its Latin name, Aurum.

ANSWER: gold

(5) Heavy metal with atomic number 82, named "plum-bum" in Latin.

ANSWER: lead

(6) Gas that bonds with sodium to form salt, named for its yellow-green color.

ANSWER: chlorine

(7) Metal whose symbol, "Sn," is short for the Latin name, Stannum.

ANSWER: tin

(8) Joseph Priestly called this breathable element "de-phlo-gist-icated air."

ANSWER: oxygen

(9) First found in solar spectral lines, this lighter-than-air element is named for the Sun.

ANSWER: helium

(10) Element with atomic number 19, named because it was isolated from burned plants.

ANSWER: potassium ("potassium" is derived from "pot-ash," water-soaked plant ash)

LITERARY LANGUAGES

Given some literary works, name the language they were originally written in. Remember to give the name of the language and not the country in which the work was published.

(1) Because I could not stop for Death, by American poet Emily Dickinson.

ANSWER: **English**

(2) *The Old Gringo* by Mexican author Carlos Fuentes.

ANSWER: **Spanish** (accept **español**)

(3) *Les Misérables* and *The Hunchback of Notre Dame* by Victor Hugo.

ANSWER: **French** (accept **française**)

(4) *The Decameron* by Giovanni Boccaccio, which is set near Florence.

ANSWER: **Italian** (accept **italiano**; do not accept or prompt on “Latin”)

(5) Hansel and Gretel, a fairy tale collected by Jacob and Wilhelm Grimm.

ANSWER: **German** (accept **Deutsch**)

(6) *The Wind-Up Bird Chronicle* by Haruki Murakami.

ANSWER: **Japanese** (accept **nihongo**)

(7) *Journey to the West*, which describes the Monkey King, Sun Wukong [soon woo-kong].

ANSWER: **Chinese** (accept **Mandarin**; accept **guanhua**)

(8) *The Aeneid*, a mythical chronicle by Virgil.

ANSWER: **Latin** (accept **latina**; accept **latinum**; do not accept or prompt on “Italian”)

(9) *The Cairo Trilogy* by Egyptian author Naguib Mahfouz [nah-geeb mah-fooz].

ANSWER: **Arabic** (accept **al-arabiyyah**; accept **arabiy**)

(10) *The Alchemist*, by Brazilian author Paulo Coelho [pow-loh kweh-loh].

ANSWER: **Portuguese** (accept **portuguesa**)

ASIAN LANDMARKS

Identify some natural and man-made landmarks from across eastern and western Asia, given their location and description.

(1) Long, defensive structure that stretches across China.

ANSWER: **Great Wall** (accept **Great Wall** of China; accept **Wànli Chángchéng**)

(2) Red-and-white tower named for the Japanese capital.

ANSWER: **Tokyo** Tower (accept **Nippon denpatou**)

(3) Holy city in Israel that contains the Dome of the Rock.

ANSWER: **Jerusalem** (accept **Yerushalayim**; accept **al-Quds**)

(4) Holy city in Saudi Arabia that contains the Kaaba.

ANSWER: **Mecca** (accept **Makkah**)

(5) The tallest of Japan's three Holy Mountains, on Honshu.

ANSWER: Mount **Fuji** (accept **Fuji-san**)

(6) White mausoleum built by Shah Jahan in northern India.

ANSWER: **Taj Mahal**

(7) Historic palace complex in Beijing, named for being off-limits without the emperor's permission.

ANSWER: **Forbidden City** (accept **Ziùchéng**)

(8) The world's tallest skyscraper, located in Dubai.

ANSWER: Burj **Khalifa**

(9) Ancient city in modern Jordan, named for being carved into the rock of a desert valley.

ANSWER: **Petra** (accept **Raqmu**; accept **Raqemo**; note: "Petra" is from the latin for "rock")

(10) The world's largest temple complex, located in Cambodia.

ANSWER: **Angkor Wat**

Final Challenge

(36) What group travelled with James Reed on the Oregon Trail and resorted to cannibalism after getting snowed in in a namesake pass?

ANSWER: The Donner Party

(37) The Koch snowflake and the Mandelbrot set are examples of what type of geometric image, whose name indicates that they exist between 1 and 2 dimensions, and that exhibit self-similarity when zoomed in very deeply?

ANSWER: fractals

(38) What epic poem includes a Catalogue of Ships in its description of the Trojan War, and is usually attributed to Homer?

ANSWER: Iliad (accept Ilias; accept Song of Ilion or Song of Ilium)

(39) What American national park contains Devils Hole, the Racetrack Playa, and Furnace Creek, the site of the hottest surface temperature ever recorded on Earth?

ANSWER: Death Valley (accept Death Valley National Park)

(40) What hormone is produced by namesake glands above the kidneys, and is associated with high heart rate and the fight-or-flight response?

ANSWER: adrenaline (accept epinephrine)

(41) Name the winning commander of the battles of the Granicus River, Issus, and Gaugamela [gaw-guh-MAY-la], a son of Philip II and Macedonian general who was known as “the Great”.

ANSWER: Alexander the Great (accept Alexander III of Macedon)

(42) What video game character's works with his brother, Mugman, to collect soul contracts for the Devil and his right-hand man, King Dice?

ANSWER: Cuphead

(43) Name the home nation of the poets of "I Wandered Lonely as a Cloud" and *The Rime of the Ancient Mariner*, Samuel Taylor Coleridge and William Wordsworth.

ANSWER: England (accept United Kingdom of Great Britain and Ireland; accept UK; accept Great Britain)

(44) Name the ancient Greek scientist who supposedly defended Syracuse with a "death ray" and legendarily yelled "Eureka" when he used the buoyant force to find the density of a crown.

ANSWER: Archimedes of Syracuse

(45) Name the springtime Jewish holiday celebrated with the Seder and by eating unleavened bread to commemorate the Exodus from Egypt.

ANSWER: Passover (accept Pesach)

(46) What country is home to Fingal's Cave, a basalt column formation in the Hebrides archipelago, and is governed from Edinburgh?

ANSWER: Scotland (accept Alba; prompt on "United Kingdom" or "UK" before "Edinburgh" is read)

(47) What string instrument, featured in "The Swan" by Camille Saint-Saëns, was played by Jacqueline du Pré and Yo-Yo Ma?

ANSWER: cello (accept violoncello; do not prompt on "violin")

(48) What class of drugs has a beta-lactam type that was first discovered in penicillin, and is used to kill harmful bacteria?

ANSWER: antibiotics

(49) What shape is formed by rows starting “one,” “one, one,” “one, two, one,” and “one, three, three, one,” in a mathematical pattern named for Pascal?

ANSWER: Pascal’s triangle

(50) Name the Pacific nation, led by Jacinda Andern, in which the Cook Strait separates the South Island from the North Island and its capital, Wellington.

ANSWER: New Zealand

(51) What quantity, whose unit is the joule, is part of an equivalence with mass that is described by Einstein’s equation “E equals M C squared?”

ANSWER: energy

(52) Solana, Shiba Inu, and Ethereum are examples of what type of commodity, which operate on a “blockchain” and whose most famous example is Bitcoin?

ANSWER: crypto (accept cryptocurrency)

(53) What mountain contains the Churchill Peaks, is the highest mountain in Alaska, and was formerly known as Mount McKinley?

ANSWER: Denali (accept Mount McKinley before it is read)

(54) What city contains the Saint Paul’s Cathedral, which was rebuilt by Sir Christopher Wren after a Great Fire in 1666, and is the capital of England?

ANSWER: London

(55) In Shakespeare’s *Othello*, Iago gives a warning about what emotion, which he characterizes as a “green-eyed monster,” when Othello worries about his wife’s possible infidelity?

ANSWER: jealousy