

Collaborative Middle School Tournament 2011

Round 10

Tossups

1. Several “pancake domes” mark the surface of this body, whose other features include the Gula Mons and Sif Mons mountains. The spacecraft Vega 1 and 2 landed on this body. Due to a runaway greenhouse effect, the average surface temperature on this body is over seven hundred degrees Kelvin. For 10 points, name this home of Ishtar Terra, the most similar planet to Earth.

ANSWER: Venus

2. The Isthmus of Tehuantepec (teh-WAHN-tuh-peck) is located in this nation, whose capital is overlooked by twin volcanoes called “Izta” and “Popo.” States in this country include Michoacan (mee-SHOW-ah-kahn) , Veracruz, and the home of the Zapotec (ZAP-oh-tek) people, Oaxaca (wah-HAH-kah). Its capital, a city once called Tenochtitlan (tay-NOHCH-tee-tlahn), was the center of the Aztec civilization. For 10 points, name this Spanish-speaking nation located south of the Rio Grande River.

ANSWER: Mexico [or United Mexican States; or Estados Unidos Mexicanos]

3. This character watches a lion and a unicorn fight over a crown, and although her cat Dinah will not talk to her, the Tiger Lily and the other flowers will. She shrinks after drinking a potion labeled “Drink Me,” and attends a tea party with a sleepy Dormouse, a March Hare, and a Mad Hatter. For 10 points, name this girl from *Through the Looking Glass*, a Lewis Carroll character that also went on *Adventures in Wonderland*.

ANSWER: Alice [accept The White King until “her”]

4. This movie character wants to live with Bonnie instead of going to college. In an earlier story, Sid Phillips plans to barbecue him, but is scared away. In another story, he plans to rescue his friends from Sunnyside when he learns that Lots-o-Huggin’ Bear is not a kind leader, but rather an evil tyrant. For 10 points, name this pull-string Cowboy voiced by Tom Hanks in the Toy Story trilogy.

ANSWER: Woody

5. In this war, naval forces under John Jellicoe (JELL-ih-koe) engaged forces under Reinhard Scheer (RINE-hard SHEER) during the Battle of Jutland. In another battle, Phillipe Petain (fill-EEP peh-TAN) stopped German forces at the namesake fortress in the Battle of Verdun. For 10 points, identify this 1914-1918 conflict that saw the Allied forces defeat the Central Powers of Germany and Austria-Hungary that is also known as the Great War.

ANSWER: World War I [or First World War; accept Great War before mentioned; prompt on World War]

6. This office is symbolized by gold and silver keys. The time during which this office is vacant is termed *sede vacante* (SEE-day vah-KAHN-tay). The holder of this office is elected in a conclave of the College of Cardinals and wears the Ring of the Fisherman, which depicts St. Peter, the first holder of this office. For 10 points, identify this head of the Roman Catholic Church, whose current holder is Benedict XVI.

ANSWER: The Pope [or Bishop of Rome; or Vicar of Jesus Christ; or Successor of the Prince of the Apostles; or Supreme Pontiff of the Universal Church; or Primate of Italy; or Archbishop and Metropolitan of the Roman Province; or Sovereign of the State of Vatican City; or Servant of the Servants of God; or Pontifex Maximus; or Patriarch of the West; prompt on His Holiness]

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7. A group of genes coding for lactose breakdown, known as the lac operon, was first discovered in this model organism. Although it is not *Shigella*, shiga toxins are produced in virulent strains of this organism such as its serotype O157:H7. They colonize the human gut at birth. For 10 points, name these gram-negative bacteria that are a common cause of food poisoning and food recalls.

ANSWER: *Escherichia coli* [prompt on *Bacillus coli communis*]

8. Pablo Neruda wrote several “Elementary” poems of this type to common objects. One type of this poetic form contains three stanzas, the first two of which are the strophe (STRO-fee) and antistrophe (ann-TISS-tro-fee). That type was invented by Pindar, who along with Horace is a namesake of a type of this poem. For 10 points, name this poem of praise, examples of which include John Keats’s “to a Nightingale” and Friedrich Schiller’s “to Joy.”

ANSWER: ode

9. This term originated from shapes that had non-integer dimensions. One of them is composed of repeating cardioids and circles. Other examples include the Sierpinski Triangle, which consists of repeating equilateral triangles within a larger triangle, and the Koch snowflake, which has an infinite perimeter but a finite area. For 10 points, name these self-similar mathematical constructs that include the Mandelbrot one.

ANSWER: fractals

10. At the bottom right of this painting, a girl steps on a dog, while a nun stands next to a servant. In the back, a figure is shown pausing on the stairs and looking at the central group. The king and the queen can be seen in a mirror, and the painter himself is shown holding a paint brush. For 10 points, identify this painting of the Spanish court in which maids surround the Infant Margarita, by Diego Velazquez.

ANSWER: *Las Meninas* [accept *The Maids of Honor*]

11. This nation’s president declared a state of emergency after wildfires hit its western regions in July and August 2010. In June 2010, the United States arrested a SVR spy from this nation, Anna Chapman. In January 2011, this nation’s Duma ratified a nuclear arms reduction treaty called New START. For 10 points, name this nation led by Dmitry Medvedev from Moscow.

ANSWER: Russian Federation [or Rossiyskaya Federatsiya]

12. Among those killed in this work is Giles Corey. Reverend Hale arrives to examine the unconscious Betty. This play sees Rebecca Nurse accused of killing seven of Goody Putnam’s children, while Reverend Parris worries that his niece Abigail Williams will ruin his name. In the end, John Proctor refuses to make a false confession and is executed. For 10 points, name this play by Arthur Miller about the Salem witch trials.

ANSWER: *The* *Crucible*

13. This man was charged with avoiding customs duties in 1786, which led to the confiscation of his boat, the *Liberty*, by the British. In 1780, he became the first Governor of the Commonwealth of Massachusetts. From 1775 to 1777, he served as president of the Second Continental Congress. For 10 points, name this first person to sign the Declaration of Independence.

ANSWER: John Hancock

14. This father of Kebechet had a cult centered at Cynopolis. This Egyptian god was associated with the Greek deity Hermes because of their similar roles. His mother is given as either Bast or Nephthys, and he predates one of his potential fathers, Osiris, as god of the underworld. This god weighs the heart of the dead against Ma’at’s (MAHT’s) feather. For 10 points, identify this jackal-headed Egyptian god of mummification.

ANSWER: Anubis [or Inpu; or Anpu; or Anup; or Ienpw]

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15. Hampstead Heath and Kensington Gardens are parks in this city which is served by the “Jubilee Line,” “Piccadilly Line,” and “Victoria Line” of its subway system, the Underground. A Norman castle built by William the Conqueror is this city's “Tower.” Its other landmarks include Westminster Abbey, Buckingham Palace, and the houses of Parliament. For 10 points, name this city on the River Thames, the capital of Britain.

ANSWER: London

16. Lewis defined these substances as acceptors of electron pairs. The presence of the hydronium ion is necessary in the Arrhenius definition. Strong examples of these substances include nitric and sulfuric, which fit the Bronsted-Lowry model as donors of hydrogen ions and turn blue litmus paper red. For 10 points, name these substances with pH lower than 7 that neutralize bases.

ANSWER: acids

17. Prince Calaf (cah-LAHF) sings “Nessun dorma” in this composer’s unfinished final work. Another opera by this composer sees Lieutenant Pinkerton marry the title character, Cio-Cio San (CHO CHO sahn), before returning to America. This composer of the unfinished *Turandot* also composed an opera about the poet Rodolfo’s love for the seamstress Mimi, who dies of tuberculosis. For 10 points, name this Italian who created *Madame Butterfly* and *La Boheme* [boh-EMM].

ANSWER: Giacomo Antonio Domenico Michele Secondo Maria Puccini [accept *Turandot* before “this composer”]

18. This man’s nonfiction work *A Footnote to History* includes firsthand accounts of civil war in Samoa. He wrote a story in which Dr. Lanyon dies from shock after seeing a respectable doctor turn into the murderer Edward Hyde. This man’s novel *Catriona* (kuh-TREE-nuh) is a sequel to a work about David Balfour, and another of his works features the pirate Long John Silver. For 10 points, name this author of *Kidnapped* and *Treasure Island*.

ANSWER: Robert Louis Balfour Stevenson

19. One folk hero from this nation killed policemen at Stringybark Creek; that man is “Ned” Kelly. One insurrection in this nation stripped William Bligh of his governorship; that insurrection is the Rum Rebellion. The “Stolen Generations” are children taken by the government of this nation from the Aborigines. For 10 points, identify this nation where Arthur Phillip established a penal colony for the British Empire.

ANSWER: Commonwealth of Australia

20. A “pillow” form of this substance forms underwater. “Domes” of this substance form from andesite. This substance can be classified, depending on the smoothness of its surface, as a’a (AH-AH) or pahoehoe (pah-HOY-HOY). It accumulates around a vent to form a cinder cone, and it solidifies to form igneous rock. For 10 points, give the term for magma that reaches the Earth’s surface, often through a volcanic explosion.

ANSWER: lava

Extra. By Okun’s Law, a one percent increase in this concept leads to a two percent loss in GDP. The Phillips Curve depicts an inverse relationship between inflation and this concept, whose types include structural and frictional. Most measurements of it do not include homemakers and students, and some do not account for discouraged workers. For 10 points, what is the term for when people who want to work cannot find jobs?

ANSWER: unemployment [or word forms such as unemployed; or unemployment rate]

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Bonuses

1. For 10 points each, name these European rivers.

[10] The legendary Lorelei sat on a rock by this river that forms the border between France and Germany before flowing into the North Sea.

ANSWER: Rhine River [accept Rijn; or Rhin; or Rhein; or Rino; or Rhenus; or Rain]

[10] This longest river in Russia flows into the Caspian Sea.

ANSWER: Volga River [accept Volga-Matushka]

[10] This river passes through Turin and Ferrara, and empties into the Adriatic Sea near Venice.

ANSWER: Po River [accept Bodincus; or Bodencus; or Padus; or Eridanus]

2. In 2012, this competition will be played at Medinah Country Club in suburban Chicago. For 10 points each:

[10] Name this competition that pits the top male professional golfers from the U.S. against Europe's best.

ANSWER: Ryder Cup Matches

[10] This golfer has struggled at the Ryder Cup compared to other events, including his 14 major wins. His last major win was at the 2008 U.S. Open.

ANSWER: Eldrick Tont "Tiger" Woods

[10] This golfer was named the captain of the 2012 U.S. Ryder Cup team.

ANSWER: Davis Love III

3. This novel sees five U.S. Civil War prisoners of war escape in a balloon and crash land on a South Pacific Island. For 10 points each:

[10] Identify this sequel to *Twenty Thousand Leagues under the Sea*, which takes place on Lincoln Island.

ANSWER: *The Mysterious Island*

[10] The source of the escapees' aid was this sea captain of the submarine *Nautilus*, whose home harbor was underneath Lincoln Island.

ANSWER: Captain Nemo [or Prince Dakkar]

[10] Captain Nemo was created by this French author of *Around the World in Eighty Days*.

ANSWER: Jules Gabriel Verne

4. The so-called "blind spot" occurs where the optic nerve leaves this structure. For 10 points each:

[10] Name this structure at the back of the eye, which is rich in photoreceptors.

ANSWER: retina

[10] The two photoreceptors in the retina are rods and these cells used for color vision.

ANSWER: cones [accept cone cells]

[10] Cones are particularly clustered at this site in the center of the retina.

ANSWER: fovea [prompt on macula]

5. The first people to sign up for this program were Harry and Bess Truman. For 10 points each:

[10] Name the federal health insurance program enacted in 1965 as part of Lyndon B. Johnson's Great Society. It is primarily designed for persons over the age of 65.

ANSWER: Medicare

[10] This letter is affixed to the Medicare Prescription Drug, Improvement, and Modernization Act that was signed into law in 2003.

ANSWER: Part D

[10] This other major government program is funded by both the federal government and states. Its primary purpose is to insure people in poverty.

ANSWER: Medicaid

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6. Shirley Temple Wong's passion for this sport helps her adjust to American life in *In the Year of the Boar and Jackie Robinson*. For 10 points each:

[10] Name this sport that is also the subject of the poem *Casey at the Bat*.

ANSWER: **baseball**

[10] In this book, Ethan Feld plays catcher for a baseball team that takes on Coyote's team for the fate of the world.

ANSWER: **Summerland**

[10] *Summerland* is a book by this author who won the Pulitzer Prize for *The Amazing Adventures of Kavalier and Clay*.

ANSWER: Michael **Chabon**

7. In one of this artist's works, two of five houses are upside down, and a man holds the Tree of Life while looking left at a sheep. For 10 points each:

[10] Name this artist of *I and the Village*.

ANSWER: Marc **Chagall**

[10] This artist depicted a man in a bowler hat whose face is obscured by an apple in *The Son of Man*, and painted a picture of a pipe above a French phrase meaning, "This is not a pipe."

ANSWER: Rene François Ghislain **Magritte**

[10] Both the man in *I and the Village* and the apple in *The Son of Man* are shades of this color. The copper plating of the Statue of Liberty makes it appear this color.

ANSWER: **Green** [accept reasonable equivalents]

8. One way stars perform this process is through the CNO cycle. For 10 points each:

[10] Name this primary way a star produces energy.

ANSWER: hydrogen **fusion** [do not accept "fission"]

[10] In the Sun and other similarly-sized stars, fusion occurs in a process that combines four of these subatomic particles, which are responsible for a nucleus's positive charge.

ANSWER: **protons**

[10] These are star-like objects whose mass is too low to sustain fusion.

ANSWER: **brown dwarfs** [prompt on **dwarfs**]

9. For 10 points each, identify these creatures from Greek mythology.

[10] This winged horse helped Bellerophon defeat the Chimera (kai-MERE-ah).

ANSWER: **Pegasus**

[10] This creature from the swamps of Lerna grew two heads every time one was cut off, until Heracles cauterized its necks.

ANSWER: Lernaean **Hydra**

[10] This three-headed dog guarded the gates of Hades.

ANSWER: **Cerberus**

10. Four months after a Spanish navigator discovered it, a Portuguese fleet landed at it and claimed the land for Portugal. For 10 points each:

[10] Name this Portuguese colony in South America that declared its independence in 1822.

ANSWER: **Brazil**

[10] The Portuguese fleet that claimed Brazil was commanded by this man, who was actually searching for a route to India to establish trade relations.

ANSWER: Pedro Alvares **Cabral**

[10] Cabral's claim of Brazil was backed by this 1494 treaty between Spain and Portugal, which granted colonization rights of new lands east of a certain meridian to Portugal.

ANSWER: Treaty of **Tordesillas**

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11. This is a computation bonus. For 10 points each, given an equation with two possible solutions, give the solution that is *negative*.

[10] x squared equals four hundred

ANSWER: **-20** [do not accept "20"]

[10] The absolute value of the quantity negative two plus x equals ten

ANSWER: **-8** [do not accept "12"]

[10] x squared minus seventeen x minus sixty equals zero

ANSWER: **-3** [do not accept "20"]

12. In December 2010, President Obama signed a bill to allow openly gay people to serve in the military, thereby repealing this policy. For 10 points each:

[10] Give the common name for this military policy, often abbreviated D.A.D.T., which was repealed by that bill.

ANSWER: **Don't Ask, Don't Tell** [accept **D.A.D.T.** if interrupted before it is mentioned]

[10] "Don't Ask, Don't Tell" was a military policy issued by this U.S. President when his efforts to overturn the military's ban on gay service people were thwarted by Congress.

ANSWER: William Jefferson "Bill" **Clinton**

[10] This Secretary of Defense helped during Obama's campaign to repeal the "Don't Ask, Don't Tell." He held the same position under George W. Bush.

ANSWER: Robert Michael **Gates**

13. This piece of legislation was shepherded through Congress by Henry Clay, who put together a coalition to pass each separate bill. For 10 points each:

[10] Name this compromise that, among other things, added California as a free state and included a stricter Fugitive Slave Law.

ANSWER: Compromise of **1850**

[10] This 1854 act created the two namesake territories and allowed them to decide whether to become slave states using the doctrine of popular sovereignty.

ANSWER: **Kansas-Nebraska** Act

[10] This architect of the Kansas-Nebraska Act was a Senator from Illinois and the Northern Democratic nominee for president in 1860.

ANSWER: Stephen Arnold **Douglas**

14. This piece opens very quietly, with the melody in the cellos and bassoons. For 10 points each:

[10] Name this piece in B minor, which depicts Peer Gynt carefully walking through the title place before being chased by trolls.

ANSWER: **"In the Hall of the Mountain King"** [accept **"I Dovregubbens hall"**]

[10] "In the Hall of the Mountain King" was written by this composer, who also wrote notable *Lyrical Pieces* for piano.

ANSWER: Edvard Hagerup **Grieg**

[10] Like the author of *Peer Gynt*, Henrik Ibsen, Edvard Grieg hailed from this Scandinavian country.

ANSWER: Kingdom of **Norway** [or Kongeriket **Norge**]

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15. Its namesake law states the equivalence of its angle to that of incidence. For 10 points each:

[10] Name this physical concept that refers to a turning backward of a light ray as it comes into contact with a surface, like that of a mirror.

ANSWER: **reflection** [accept word forms]

[10] This other term refers to the bending of light as it enters a medium in which its speed is different.

ANSWER: **refraction** [accept word forms]

[10] This is the point toward which light rays reflected by a convex mirror, or those refracted by a convex lens, appear to converge.

ANSWER: **focal point** [or principal **focus**]

16. The Swiss mercenary Bluntschli is referred to as a chocolate-cream soldier in this man's play *Arms and the Man*. For 10 points each:

[10] Name this Irish playwright who also wrote *Major Barbara*.

ANSWER: George Bernard **Shaw**

[10] In this Shaw play adapted into the musical "My Fair Lady," Henry Higgins teaches a Cockney flower girl to speak like a lady.

ANSWER: **Pygmalion**

[10] This is the flower girl Higgins teaches in *Pygmalion*.

ANSWER: **Eliza** Doolittle

17. For 10 points each, identify these shapes.

[10] This two-dimensional quadrilateral has two parallel sides though not necessarily two pairs of parallel sides.

ANSWER: **trapezoids**

[10] This three-dimensional type of sphere or dome contains many triangles on its surface and many great circles going around it. A famous example is Spaceship Earth at EPCOT Center.

ANSWER: **geodesic** sphere or dome

[10] This four-dimensional analog of a square is built out of eight cubes.

ANSWER: **hypercube**

18. For 10 points each, name these authors from the American South.

[10] This author of *The Hamlet* created Yoknapatawpha [YOK-nah-pah-TAW-fah] County, Mississippi, the home of Thomas Sutpen's hundred acre plantation in *Absalom, Absalom!*

ANSWER: William **Faulkner**

[10] This Southern Gothic author wrote the short story collections *Everything That Rises Must Converge* and *A Good Man is Hard to Find*.

ANSWER: Flannery **O'Connor**

[10] This Regionalist author of short stories like "Desiree's Baby" and "The Story of an Hour" is most famous for the novel *The Awakening*.

ANSWER: Kate **Chopin**

19. For 10 points each, identify these religious holidays that restrict what people can eat.

[10] This is the ninth month of the Islamic year. During it Muslims are not supposed to eat from dawn until sunset.

ANSWER: **Ramadan**

[10] The Orthodox Church fasts during this practice that takes place over the first two weeks of August. It is done to commemorate the death of Mary.

ANSWER: **Dormition** of the Theotokos [prompt on **Assumption** of Mary]

[10] This 24-hour complete fast occurs on the tenth day of the Jewish year. It is translated to English as "Day of Atonement."

ANSWER: **Yom Kippur** [accept **Day of Atonement** if interrupted before it is read]

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20. Wikipedia wants you to know that one of these used for war or for a triumph was called a car. For 10 points each:

[10] Identify these objects pulled by up to four horses that became largely defunct starting in the 4th and 5th century BCE.

ANSWER: chariots

[10] Chariots were heavily employed during this battle between Hittite forces under Muwatallis I (MOO-wah-TALL-iss one) and the Egyptians. It is said to have been the largest chariot battle in history.

ANSWER: Battle of Kadesh

[10] The Egyptians at the Battle of Kadesh were commanded by this pharaoh. This son of Seti I built several statues of his wife, Nefertari, in the Valley of the Queens at Thebes.

ANSWER: Ramses II or Ramses the Great

Extra. This "City of the Big Shoulders" is the "Hog Butcher for the World" and "Freight Handler for the Nation." For 10 points each:

[10] Name this sprawling Midwestern metropolis, frequently given the moniker "Windy City."

ANSWER: Chicago [accept Chicagoland; prompt on Chi City]

[10] The 1916 poem "Chicago" is by this poet who described it as "a savage pitted against the wilderness" and complimented the city's spirit as a hub of America's economy.

ANSWER: Carl Sandburg

[10] A less praiseworthy work discussing the Chicago meat-packing industry is this author's book about Jurgis Rudkus entitled *The Jungle*.

ANSWER: Upton Beall Sinclair, Jr.