

# 2011 Collaborative Middle School Tournament

## Round 2

### Tossups

1. This man sits between Liberty and Victory in a fresco by Constantino Brumidi on the inside of the U.S. Capitol Rotunda. The iconic portrait of this man was painted by Gilbert Stuart. In a painting by Emmanuel Leutze, he faces left and holds his hand over his heart as he stands up on a boat. For 10 points, name this U.S. President painted crossing the Delaware River, whose portrait appears on the one dollar bill.

ANSWER: George **Washington**

2. Arthur Doodson designed a machine for predicting the magnitude of these events. They occur in a cycle that includes “stand” periods followed by “slack water” periods. An unusually high concentration of dinoflagellates (DYE-no-FLADGE-ell-ates) can cause the “red” type. Weak versions of these events are known as “neap” ones and occur in the first and third quarters of the lunar cycle. For 10 points, name these variations in the sea level.

ANSWER: **tides**

3. Smaller islands that are part of this nation include the Chatham Islands and Stewart Islands. The Cook Strait separates the two main islands of this country, whose smaller main island contains the old capital of Auckland. The Maori people live on the North and South Islands in, for 10 points, what nation with a capital at Wellington that sits over 1,000 miles off the coast of Australia?

ANSWER: **New Zealand**

4. One creation story from this religion claims that all beings were sprung from one-fourth of Purusa (POO-roo-SAH), while the *Puranas* (“PURR”-on-AHS) describe how the world is created, sustained, and destroyed by three gods in the form of a lotus flower. Other texts important in this religion include the *Mahabharata* (mah-HAH-bah-RAH-tah), the *Ramayana* (RAH-mah-YAH-nah), and the *Vedas* (VAY-duhs). For 10 points, what religion centers on the three gods Vishnu, Shiva, and Brahma?

ANSWER: **Hinduism** [accept **sanatara dharma**]

5. In one story from this collection, Palamon and Arcite fight over the hand of Emelye [EMILY], while in another story, an old hag notes that what women want most is to be in charge of their husbands. Those stories are told by, respectively, the Knight and the Wife of Bath, two of a group of pilgrims journeying to the shrine of Thomas à Becket in the title town. For 10 points, name this collection of tales by Geoffrey Chaucer.

ANSWER: *The **Canterbury Tales*** [prompt on “The **Wife of Bath**’s Tale;” prompt on “The **Knight**’s Tale”]

6. Like the kidney, this organ possesses large amounts of smooth endoplasmic reticulum because of its role in removing toxins from the body. This organ converts glycogen into glucose and creates cholesterol. This largest human internal organ is divided into four lobes and can regenerate. Cirrhosis is the degeneration of, for 10 points, which reddish-brown abdominal organ, which produces bile and stores it in the gallbladder?

ANSWER: **liver**

## 2011 CMST – Round 2

7. This European nation established a trading post at Macau (mah-COW) in 1557 as part of its development of trade relations with China. The invention of the caravel ship made this nation's exploration of the coast of Africa easier and one explorer from this nation, Bartholomew Dias (BAR-tol-OH-mew DEE-as), rounded the Cape of Good Hope in 1488. For 10 points, identify this nation where Prince Henry the Navigator promoted exploration to boost the economy.

ANSWER: **Portugal**

8. Big Bob Oakley was the first person on this show to say "I'd have gotten away with it too, if it weren't for those kids," and one show in this series introduced a character named Scrappy. In 2002, a film of the same name starred Freddie Prinze, Jr. as Freddy and Sarah Michelle Gellar as Daphne. For 10 points, name this cartoon franchise, named for a cowardly Great Dane.

ANSWER: **Scooby-Doo** [accept **Scooby-Doo, Where Are You!**]

9. Characters in this work include Count Ugolino as well as Francesca da Rimini, whose husband caught her with Paolo. The speaker of this work faints while Charon and Virgil guide a boat across the Acheron. Beginning the day before Good Friday, this work depicts nine concentric circles in which sinners are punished. For 10 points, name this first section of *The Divine Comedy*, in which the poet Dante is guided through Hell.

ANSWER: **Inferno** [prompt on *The Divine Comedy* before mentioned]

10. A triangular patch of clouds that circulates this planet quickly is known as The Scooter. Its atmosphere contains the fastest winds in the solar system. Its existence was predicted by Alexis Bouvard, and it was discovered by Johann Galle. It often contains the Great Dark Spot. Its largest moon, which has a retrograde orbit, is Triton. For 10 points, name this gas giant, the farthest from the Sun in the solar system.

ANSWER: **Neptune**

11. In one work by this author, Georgiana dies after Aylmer manages to remove the title blemish. In another work, the title character witnesses his wife Faith and other townspeople dancing. In his most famous novel, the titular object is worn by Hester Prynne as punishment for committing adultery. For 10 points, name this author of "The Birthmark," "Young Goodman Brown," and *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne**

12. One bill addressing this process required a majority of a state's residents to take the Ironclad oath; that bill was the Wade-Davis bill, which was pocket-vetoed by President Lincoln in favor of his "Ten Percent Plan" for this process. This process did not end until Rutherford B. Hayes won the Election of 1876. For 10 points, identify this post-Civil War transformation and military occupation of the South.

ANSWER: military **reconstruction** [or **Reconstruction** Era; accept **Radical Reconstruction** before "Lincoln" but do not accept afterwards]

13. This deity caused Hodr (HOE-dur) to kill another god with mistletoe, and then failed to weep for that god in the guise of Thokk. He prevented a wall from being built around Asgard on time by taking the form of a mare and laying with Svadilfari (SVAHD-ill-FAR-ee); that union created Sleipnir (SLEEP-near). He is better known for fathering the Midgard Serpent and Hel. For 10 points, identify this Norse trickster god.

ANSWER: **Loki**

## 2011 CMST – Round 2

14. Written by Joseph Brackett, this song mentions “the valley of love and delight.” Its melody is borrowed by the clarinet in a scene depicting daily life for newlyweds; that scene is the seventh section of a 1944 ballet choreographed by Martha Graham. For 10 points, name this song from Aaron Copland’s *Appalachian Spring*, a Shaker tune that notes “’tis the gift to be free.”

ANSWER: “**Simple Gifts**” [prompt on *Appalachian Spring* before mentioned; prompt on anything mentioning **Shakers** before mentioned]

15. This object was used as a piece of building material in the construction of Fort Julien in the Nile Delta. It was discovered by a French soldier that occupied the fort in 1799, and Jean-Francois Champollion (ZHAN fran-SWAH SHAM-POE-lee-own) deciphered it in 1822. For 10 points, name this artifact carved in a basalt tablet and written in three languages, which permitted linguists to decipher Egyptian hieroglyphics for the first time in modern history.

ANSWER: **Rosetta Stone**

16. This leader’s half-brother is believed to be a drug trafficker, but serves as the chief of a provincial council. This leader was originally put in power by a loya jirga (LOY-uh JER-guh). In October 2010, this man admitted to receiving bags of cash from Iran. In 2010, he stormed out of a meeting with David Petraeus and was accused of holding a rigged election against Abdullah Abdullah. For 10 points, name this leader of Afghanistan.

ANSWER: Hamid **Karzai** [or Hamid **Karzay**]

17. This man patented a smokeless propellant known as ballistite. Another of his inventions consisted of diatomaceous earth. He developed a substance containing nitrocellulose, saltpeter, wood pulp, and an explosive. Used in blasting gelatin, that explosive was also used in an earlier invention. Dynamite was created by, for 10 points, what scientist whose namesake prizes are given out by the Swedish Academy of Sciences?

ANSWER: Alfred **Nobel**

18. In this book, Vic Morgeroff mocks the word “enjoyable,” and one character carries around a fire-engine red bucket. The two primary adults in this book are rival twin brothers who suffer from narcolepsy. One of them, Ledroptha Curtain, controls a Whisperer at the Learning Institute for the Very Enlightened. For 10 points, name this work about Reynie Muldoon, written by Trenton Lee Stewart.

ANSWER: *The **Mysterious Benedict Society***

19. In conics, if this value is less than 0, a circle or ellipse forms. If this value is 0 in cubic functions, there is one root of multiplicity 2. If this value is positive in a quadratic equation, then there are two real solutions; and the formula for finding this value in a quadratic equation is  $b^2 - 4ac$ . For 10 points, name this value which can be used to determine the nature of roots of a function.

ANSWER: **discriminant**

20. This city contains the neo-gothic Votive Church, and its Karlskirche (KARLS-keer-kuh) is the largest Baroque Cathedral north of the Alps. It is the capital of a country with such states as Burgenland, Tyrol, and Styria. This city’s Ring Boulevard was ordered to be restructured by Franz Joseph I, and it lies on the Danube just upriver from Bratislava, the capital of Slovakia. For 10 points, name this capital of Austria.

ANSWER: **Vienna**, Austria [or **Wien**]

Extra. This man’s assertion that the world is made of pure, transcendent ideas accessible to us only through images of them is known as his Theory of Forms. He suggested that the city-state should be ruled by philosopher-kings in a work that also includes the “Allegory of the Cave.” For 10 points, name this teacher of Aristotle who wrote *The Republic* and several other dialogues featuring his mentor, Socrates.

ANSWER: **Plato**

## 2011 CMST – Round 2

### Bonuses

1. For 10 points each, name these narrative points of view.

[10] In this point of view, a story is narrated by a character in the story itself.

ANSWER: **first person**

[10] The “limited” type of this other point of view is used in the Harry Potter books. It uses the pronouns “he” or “she” to narrate from outside the story.

ANSWER: **third person** limited

[10] This type of a third person voice, often contrasted with limited, is able to see and understand everything that goes on in a story.

ANSWER: **omniscient** [prompt on **neutral**]

2. Its 2011 edition between the Washington Capitals and the Pittsburgh Penguins was delayed due to rain at Heinz Field. For 10 points each:

[10] Name this annual outdoor hockey game hosted by the NHL, first held in 2008.

ANSWER: NHL **Winter Classic**

[10] This NHL team usually plays its home games at HSBC Arena, but hosted the first Winter Classic in Ralph Wilson Stadium, where the Penguins defeated this team in a shootout.

ANSWER **Buffalo Sabres** [accept either underlined part]

[10] The game-winning goal in that first Winter Classic was scored by this player, who became captain of the Pittsburgh Penguins at the age of 19.

ANSWER: Sidney **Crosby**

3. The Berkshire Mountains are located in the western part of this state. For 10 points each:

[10] Name this New England state, the northern neighbor of Connecticut and Rhode Island.

ANSWER: **Massachusetts**

[10] The capital of Massachusetts is this city, where one might visit Faneuil Hall, Old North Church, and the Freedom Trail.

ANSWER: **Boston**

[10] This cape in southeastern Massachusetts was formed by glacial activity during the Ice Age.

Seventeenth-century explorers named it for the abundant fish found there.

ANSWER: Cape **Cod**

4. The protagonist of this novel is tamed by the gold hunter Weedon Scott, and later kills the criminal Jim Hall. For 10 points each:

[10] Name this novel about a wolf that takes place during the Klondike Gold Rush.

ANSWER: **White Fang**

[10] In addition to writing *White Fang*, this author also wrote the short story “To Build a Fire.”

ANSWER: Jack **London**

[10] London also wrote this novel, in which Buck becomes a sled dog. Buck later goes into the forest after avenging the death of his master, who had been killed by Yeehat Indians.

ANSWER: *The* **Call of the Wild**

## 2011 CMST – Round 2

5. He completed the unification of Germany in 1871. For 10 points each:

[10] Name this Prussian Prime Minister, often referred to as the “Iron Chancellor.”

ANSWER: Otto von **Bismarck**

[10] Otto von Bismarck helped instigate this war in 1870 by editing the Ems Telegram to make it seem like the Prussian king had insulted a rival.

ANSWER: **Franco-Prussian** War [or **Franco-German** War]

[10] This man ruled France until he was deposed at the conclusion of the Franco-Prussian War. He was the nephew of Napoleon I, not his grandson as many might think.

ANSWER: **Napoleon III** [prompt on **Napoleon**]

6. About four thousand of these objects have been identified, and most are classified as short-period or long-period. For 10 points each:

[10] Identify these astronomical objects, most of which possess an ion tail pointing away from the sun.

ANSWER: **comets**

[10] This comet has a period of about 75 years and is visible to the naked eye. It is named after an 18th-century English astronomer, and will not be seen again until 2061.

ANSWER: **Halley's** Comet

[10] This spherical region of space located almost one light-year from the Sun is believed to be the source of most, if not all, long-term comets

ANSWER: **Öpik-Oort** Cloud

7. For 10 points each, name these styles of painting that do not have to include people.

[10] This type of painting typically shows inanimate indoor objects, such as flowers or fruit, often sitting on a table.

ANSWER: **still life**

[10] This non-specific style was practiced by artists like Jackson Pollock and Willem de Kooning. It shows lines, shapes, and colors instead of trying to depict nature or reality.

ANSWER: **abstract** art [accept **abstract expressionism**; prompt on more specific answers such as **cubism**]

[10] This type of painting, practiced by J.M.W. Turner and John Constable, shows cities and nature as viewed from a distance.

ANSWER: **landscape**

8. His book *Elements* was used to study geometry for thousands of years. For 10 points each:

[10] Name this Greek writer known as the Father of Geometry.

ANSWER: **Euclid** of Alexandria

[10] Euclid's work was based on five of these statements. These statements are assumed to be true without proof, and they can be used to prove other statements.

ANSWER: **Postulates** [or **Axioms**]

[10] One of Euclid's postulates states that only one line can be drawn through a given point with this relationship to another given line. Give this term for two coplanar lines which never meet.

ANSWER: **parallel**

## 2011 CMST – Round 2

9. This individual went on the Salt March. For 10 points each:

[10] Name this Indian political activist who advocated non-violence in his opposition to the British colonialism of his home country.

ANSWER: Mohandas Karamchand **Gandhi** [or Mahatma **Gandhi**]

[10] Mohandas Gandhi was an advisor and mentor to this first prime minister of an independent India.

ANSWER: Jawaharlal **Nehru**

[10] Muhammad Ali Jinnah is considered the father of this nation, which split from India in 1947. This nation still disputes the Kashmir province with India.

ANSWER: Islamic Republic of **Pakistan** [or Jamhuryat Islami **Pakistan**]

10. For 10 points each, name these books found in the Hebrew Bible, which Christians call the Old Testament.

[10] This book is about a pious man who endures many trials while God tests his faith.

ANSWER: Book of **Job** (JOHB) [accept Seifer **Iyov**]

[10] This book tells the story of a young girl who, at her cousin Mordechai's (MORE-deh-KAI's) insistence, goes to live in the harem of a Persian king. It is read on Purim.

ANSWER: Book of **Esther** [accept Seifer **Esteir**]

[10] This book is about the namesake leaders of the Jewish people following Joshua. Those leaders include Deborah, Gideon, and Samson.

ANSWER: Book of **Judges** [accept Seifer **Shoftim**]

11. *Euglena* move with the aid of these structures. For 10 points each:

[10] Name these whip like cell extensions that also facilitate locomotion in sperm cells.

ANSWER: **flagella** [or **flagellum**]

[10] Similar to flagella are these shorter cell extensions that can be found in the Fallopian tubes and on *Paramecium*.

ANSWER: **cilia** [or **cilium**]

[10] Cilia and flagella are both composed of these cytoskeletal components. These hollow rods have a larger diameter than both microfilaments and intermediate filaments.

ANSWER: **microtubules**

12. On April 20, 2010, this oil rig exploded off the coast of Louisiana, killing 11 workers. For 10 points each:

[10] Identify this drilling rig and platform which burned for 36 hours before finally sinking.

ANSWER: **Deepwater Horizon**

[10] *Deepwater Horizon* was leased and operated by this petroleum company headquartered in London. This petroleum company merged with Amoco at the end of the 1990's.

ANSWER: **British Petroleum** p.l.c.

[10] When *Deepwater Horizon* sunk, the well it had drilled continued spilling up to 2.5 million gallons of oil per day into this body of water.

ANSWER: **Gulf of Mexico**

13. Following this battle, the winning side's officers invited the losing side's officers to dinner, but explicitly excluded Banastre Tarleton from the offer. For 10 points each:

[10] Identify this final major battle of the American Revolution, which took place in 1781 in Virginia.

ANSWER: Battle of **Yorktown** [or Siege of **Yorktown**]

[10] This British Major General surrendered following the Siege of Yorktown.

ANSWER: Lord Charles **Cornwallis**

[10] This French Admiral led the naval blockade that prevented Henry Clinton's reinforcements from reaching Yorktown.

ANSWER: Francois-Joseph Paul, Comte **de Grasse**

## 2011 CMST – Round 2

14. This composer's last symphony is his ninth, or Choral, and his sixth is nicknamed the Pastoral. For 10 points each:

[10] Name this German composer of "Für Elise," who went deaf.

ANSWER: Ludwig van **Beethoven**

[10] This Beethoven symphony opens with a "short-short-short-long" motif, which is often compared to "fate knocking at the door."

ANSWER: Symphony No. **5** in C minor [or **Fifth** Symphony]

[10] Beethoven also wrote this piano sonata labeled "quasi una fantasia," which is popularly nicknamed for its nighttime setting.

ANSWER: Piano Sonata No. **14** in C-sharp minor, [or "**Moonlight**" Sonata; or "**Mondscheinsonate**"]

15. In this novel, Charlotte Lucas marries William Collins, after he had been rejected by the protagonist. For 10 points each:

[10] Name this novel in which Elizabeth Bennet marries Mr. Darcy.

ANSWER: ***Pride and Prejudice***

[10] This author wrote *Pride and Prejudice* and the novel *Emma*.

ANSWER: Jane **Austen**

[10] In this other Austen novel, after Lucy Steele breaks off her engagement with Edward Ferrars to marry his brother Robert, Elinor Dashwood is able to marry Edward.

ANSWER: ***Sense and Sensibility***

16. This is a computation bonus. For 10 points each, solve the following problems involving right triangles. Express answers in simplest radical form, if necessary.

[10] In a 45-45-90 right triangle, if each leg is of length 1, what is the length of the hypotenuse?

ANSWER: Square **Root** of **2** [for all parts, accept equivalent answers such as **Radical 2**]

[10] In a 30-60-90 right triangle, if the hypotenuse is of length 2, what is the length of the longer leg?

ANSWER: Square **Root** of **3**

[10] In a right triangle with one acute angle that has a tangent of 3, if the shorter leg is of length 1, what is the length of the hypotenuse?

ANSWER: Square **Root** of **10**

17. This author wrote "The Galoshes of Fortune," in which the title objects made their wearer's wishes come true. For 10 points each:

[10] Name this Danish author who also wrote "Thumbelina" and "The Ugly Duckling."

ANSWER: Hans Christian **Andersen**

[10] This Andersen story is about a creature who leaves the sea to become human after falling in love with a prince.

ANSWER: "The **Little Mermaid**" [or "Den **Lille Havfrue**"]

[10] This Andersen story is about a creature who gently puts children to sleep and shows them dreams.

ANSWER: "**Sandman**" [or "**Ole Lukøje**"]

18. He loaned his helmet of invisibility to Perseus. For 10 points each:

[10] Identify this brother of Zeus and Greek god of the underworld.

ANSWER: **Hades**

[10] Hades abducted this daughter of Demeter to be his wife. To make sure she would always have to return to the underworld, he tricked her into eating pomegranate seeds.

ANSWER: **Persephone**

[10] This man's music was so beautiful that Hades agreed to let him take his wife Eurydice back from the underworld, so long as neither looked back until they had left, which of course he did.

ANSWER: **Orpheus**

## 2011 CMST – Round 2

19. This control system is attained through provisions such as impeachment. For 10 points each:

[10] Name this system in the U.S. government that prevents individual branches from becoming too powerful and encourages those branches to cooperate.

ANSWER: **checks and balances** [or **separation of powers**]

[10] This part of Article VI of the Constitution establishes that the Constitution, federal laws, and federal treaties are the “supreme law of the land.”

ANSWER: **supremacy clause** [or Article VI, **Clause 2**]

[10] This branch of the U.S. government checks the legislative branch by interpreting the laws.

ANSWER: **judicial** branch [prompt on **courts** and other knowledge equivalents]

20. With Satyendra Bose, he proposed a fifth state of matter made up entirely of bosons. For 10 points each:

[10] Name this physicist who won the 1921 Nobel Prize in Physics for his discovery of the Photoelectric Effect, and who proposed the theory of special relativity.

ANSWER: Albert **Einstein**

[10] This scientist proposed an earlier theory of relativity which stated that laws of motion were all relative. He also invented a telescope that allowed him to discover four of Jupiter’s moons.

ANSWER: **Galileo Galilei** [accept either underlined name]

[10] Common to both Galileo and Einstein’s concepts of relativity is the idea that this vector analog of speed is not absolute.

ANSWER: **velocity**

Extra. The “actual” type of it can be calculated by dividing the output force by the input force. For 10 points each:

[10] Name this quantity that represents the factor by which a machine multiplies the applied force or torque. It is often increased by simple machines.

ANSWER: **mechanical advantage** [or **MA**; or actual **mechanical advantage**]

[10] These simple machines come in three classes. Examples of them include see-saws and crowbars.

ANSWER: **levers**

[10] In a class one lever, this point is found between the load and applied force. It is the point on which a lever can pivot.

ANSWER: **fulcrum**