

ASCA Middle School Set Sample Round

Period One—Ten tossups, Ten 2-part bonuses

1. A 2002 April Fool's joke saw this website claim that pigeons were the secret to its success. It developed the Chrome web browser and acquired YouTube in 2006. This website has the slogan "Don't be evil" and helped develop the Android operating system. For 10 points, name this Internet search engine that operates Gmail.

ANSWER: **Google**.com

This artist's Last Judgment was defaced by the orders of the Council of Trent. For ten points each:

[10] Name this painter of the Sistine Chapel's ceiling and sculptor of *David*

ANSWER: **Michelangelo** di Lodovico Buonarroti Simoni

[10] Michelangelo was a contemporary of this artist, who painted the *School of Athens*.

Answer: **Raphael** [or **Raffaello** Sanzio]

2. This author invented the detective story in his work *The Murders in the Rue Morgue*, while another of his stories deals with the murder of an old man with a "vulture eye." This author wrote a poem about how the title creature "came a tapping, As of someone gently rapping, rapping at my chamber door." For ten points, name this Baltimore author of "The Telltale Heart" and "The Raven."

ANSWER: Edgar Allan **Poe**

Its first day was Black Tuesday. For ten points each:

[10] Name this economic downturn which began with the stock market crash of 1929.

ANSWER: **Great Depression**

[10] The Great Depression began during the tenure of this president. The camps built by homeless people during the Depression were named after him.

ANSWER: Herbert Clark **Hoover**

3. Structures in this organ include the glomerulus, Bowman's capsule, and the Loop of Henle. Calcium oxalate crystals can form objects in this organ which is made up of nephrons; those objects are this organ's namesake stones, which are painful. For ten points, name this organ which filters wastes from blood to create urine.

ANSWER: **kidney**

Pencil and paper ready. Josh's first four math test scores are 65, 55, 70, and 42. For 10 points each:

[10] What must he make on his fifth test in order to pass his class with a score of exactly 60%?

ANSWER: **68**

[10] Assume that Josh made a 68 on his fifth test. Find his median test score.

ANSWER: **65**

4. One tributary of this river begins in Lake Tana. Another tributary of this river begins in the world's fourth-largest lake, Lake Victoria. Those two tributaries are the White and Blue tributaries of this river. For ten points, name this river that flows past Cairo into the Mediterranean Sea, the longest river in the world.

ANSWER: **Nile** River

Answer these questions about an official language of the United Nations, for 10 points each:

[10] This European language is spoken in Belarus and Ukraine as well in as a country with capital at Moscow.

ANSWER: **Russian**

[10] Russian is written in this type of script shared by many Eastern European nations and named after a Greek saint.

ANSWER: **Cyrillic**

5. This man published an explanation for Brownian motion, thus providing evidence for the existence of atoms. This scientist suggested that energy was discrete in his explanation of the photoelectric effect. Both of those events occurred during this physicist's Miracle Year, 1905, during which he also proposed special relativity. For 10 points, name this physicist known for the formula  $E = mc^2$  ("E equals M C squared").

ANSWER: Albert **Einstein**

They battled the Voortrekkers at Blood River. For 10 points each:

[10] Name this southern and eastern African tribe led by Shaka.

Answer: **Zulu**

[10] One innovation introduced by Shaka to the Zulu was the introduction of a short stabbing version of this weapon also used by Greek hoplites. Pikes are a longer version of this weapon.

Answer: **Spear**

6. This state is home to Lake Mono and Lake Tahoe. The tallest mountain in the lower 48 states appears in this state home to Yosemite Valley and Sequoia National Park, while the San Andreas fault runs under this state. For ten points, name this US state home to both the Mojave Desert and Death Valley, along with its capital of Sacramento.

ANSWER: **California**

This number is the identity of real numbers under multiplication. For 10 points each:

[10] Name this number which is neither prime nor composite and which is the number of even prime numbers in existence.

ANSWER: **one** [or **unity**]

[10] This transcendental number is the base of the natural logarithm and is roughly equal to 2.718.

ANSWER: **e**

7. This man's troops defeated Russia at the battles of Friedland and Borodino. After returning from Elba, this Corsica-born military leader was exiled to St. Helena after losing to the combined forces of Blucher and the Duke of Wellington at Waterloo. For 10 points, name this early 19th century French military leader who actually wasn't particularly short for his time.

ANSWER: **Napoleon** Bonaparte

Examples include the words “mater” in Latin and “mother” in English. For 10 points each:

[10] Name these words which sound the same across multiple languages because they share a common origin.

ANSWER: **Cognates**

[10] Another cognate of “mother” is “madre,” (MAH-dray) the word for mother in this language spoken in Madrid.

ANSWER: **Spanish**

8. Ceva’s Theorem provides a test for whether cevians in this shape are concurrent. An Euler line is formed by the centroid, orthocenter, and circumcenter of this shape. The law of sines equates the ratios of this shape’s side lengths to the sines of the opposite angles. Its area can be calculated using Heron’s formula and its solid of revolution is a cone. For ten points, name this three sided polygon.

ANSWER: **triangle**

Name these small nations, for 10 points each:

[10] This nation surrounded by France is famous for its casinos in Monte Carlo.

ANSWER: Principality of **Monaco**

[10] This Duchy on the Rhine river with a capital of the same name is surrounded by France, Germany, and Belgium.

ANSWER: Grand Duchy of **Luxembourg**

9. This man holds the Major League Baseball record for most wins and most losses in a career. He began his career with the Cleveland Spiders and was traded to St. Louis, then Boston in the new American League. This pitcher pitched the first perfect game in the modern era and three no-hitters. For 10 points, name this pitcher, the namesake of the award given to the best pitchers in Major League Baseball.

ANSWER: Denton True “Cy” **Young**

Its protagonist rejects the clergyman Mr. Collins. For ten points each:

[10] Name this English novel about the love affair between Elizabeth Bennet and Fitzwilliam Darcy.

Answer: ***Pride and Prejudice***

[10] This author who told the story of the Dashwood sisters in *Sense and Sensibility* wrote *Pride and Prejudice*.

Answer: Jane **Austen**

10. Pencil and paper ready. How long will it take to fill a cylinder with radius 3 units and height of 5 units at a rate of  $3\pi$  cubic units per minute? It helps to know that the volume is  $\pi$  times radius squared times height, or  $45\pi$  cubic units. Thus, name the answer to 45 divided by 3.

ANSWER: **15** minutes

Answer the following questions about fertilizer, for 10 points each:

[10] Fertilizers are defined by their concentrations of phosphorous, potassium, and this element which makes up 78% of the atmosphere.

ANSWER: **Nitrogen** [or **N**]

[10] This fertilizer company is better known for its Roundup herbicide.

ANSWER: **Monsanto**

## Period Two—Worksheet (Team One)

Answer these questions, the answers to which all begin with the letter “A.”

1)	State home to Mike Huckabee which has seen hundreds of small earthquakes recently.
2)	Shakespearean comedy which features Titania and Oberon, the rulers of the trick playing Fairies. (The answer does not have to include the letter “A”)
3)	Capital of New York.
4)	Words which modify verbs and adjectives. Examples include “quickly” and “happily.”
5)	Country with capital at Buenos Aires.
6)	Nucleotide base that binds with thymine in DNA.
7)	The rhyming of vowel sounds within a sentence.
8)	Element refined from the ore bauxite.
9)	Leader who conquered the Persian Empire after the Battles of Issus and Gaugamela.
10)	Substance with pH less than 7 which reacts with a base.
11)	Type of programming language that translates another programming language into machine code.
12)	19 <sup>th</sup> Century artist famous for his paintings of birds.
13)	American playwright of <i>Death of a Salesman</i> and <i>The Crucible</i> . (The answer does not have to include the letter “A”)
14)	The study of human culture.
15)	Sixteenth president of the United States who signed the Emancipation Proclamation. (The answer does not have to include the letter “A”)
16)	Location where Texas volunteers made last stand against Mexican troops.
17)	European capital city where riots have occurred in 2011 as a result of austerity measures to quell a debt crisis.
18)	Composer of <i>Appalachian Spring</i> and <i>Rodeo</i> . (The answer does not have to include the letter “A”)
19)	Student of Plato who organized all of matter into five elements.
20)	Company founded by Jeff Bezos that began as an online bookseller, but now sells nearly everything.

## Period Two—Worksheet (Team Two)

Answer these questions, the answers to which all begin with the letter “A.”

1)	State home to Mike Huckabee which has seen hundreds of small earthquakes recently.
2)	Shakespearean comedy which features Titania and Oberon, the rulers of the trick playing Fairies. (The answer does not have to include the letter “A”)
3)	Capital of New York.
4)	Words which modify verbs and adjectives. Examples include “quickly” and “happily.”
5)	Country with capital at Buenos Aires.
6)	Nucleotide base that binds with thymine in DNA.
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14)	The study of human culture.
15)	Sixteenth president of the United States who signed the Emancipation Proclamation. (The answer does not have to include the letter “A”)
16)	Location where Texas volunteers made last stand against Mexican troops.
17)	European capital city where riots have occurred in 2011 as a result of austerity measures to quell a debt crisis.
18)	Composer of <i>Appalachian Spring</i> and <i>Rodeo</i> . (The answer does not have to include the letter “A”)
19)	Student of Plato who organized all of matter into five elements.
20)	Company founded by Jeff Bezos that began as an online bookseller, but now sells nearly everything.

## Period Two—Worksheet Answers

Answer these questions, the answers to which all begin with the letter “A.”

1)	State home to Mike Huckabee which has seen hundreds of small earthquakes recently.  ANSWER: <b><u>Arkansas</u></b>
2)	Shakespearean comedy which features Titania and Oberon, the rulers of the trick playing Fairies. (The answer does not have to include the letter “A”)  ANSWER: <i>A <b><u>Midsummer Night's Dream</u></b></i>
3)	Capital of New York.  ANSWER: <b><u>Albany</u></b>
4)	Words which modify verbs and adjectives. Examples include “quickly” and “happily.”  ANSWER: <b><u>Adverb</u></b>
5)	Country with capital at Buenos Aires.  ANSWER: <b><u>Argentina</u></b> [or <b><u>Argentine</u></b> Republic; or República <b><u>Argentina</u></b> ]
6)	Nucleotide base that binds with thymine in DNA.  ANSWER: <b><u>Adenine</u></b>
7)	The rhyming of vowel sounds within a sentence.  ANSWER: <b><u>Assonance</u></b>
8)	Element refined from the ore bauxite.  ANSWER: <b><u>Aluminum</u></b> [or <b><u>Al</u></b> ]
9)	Leader who conquered the Persian Empire after the Battles of Issus and Gaugamela.  ANSWER: <b><u>Alexander the Great</u></b> [or <b><u>Alexander III</u></b> of Macedon]
10)	Substance with pH less than 7 which reacts with a base.  ANSWER: <b><u>Acid</u></b>
11)	Type of programming language that translates another programming language into machine code.  ANSWER: <b><u>Assembly</u></b> Language [or <b><u>Assembler</u></b> ]
12)	19 <sup>th</sup> Century artist famous for his paintings of birds.  ANSWER: John James <b><u>Audubon</u></b>

13)	American playwright of <i>Death of a Salesman</i> and <i>The Crucible</i> . (The answer does not have to include the letter "A")  ANSWER: Arthur <b><u>Miller</u></b>
14)	The study of human culture.  ANSWER: <b><u>Anthropology</u></b>
15)	Sixteenth president of the United States who signed the Emancipation Proclamation. (The answer does not have to include the letter "A")  ANSWER: Abraham <b><u>Lincoln</u></b>
16)	Location where Texas volunteers made last stand against Mexican troops.  ANSWER: <b><u>Alamo</u></b>
17)	European capital city where riots have occurred in 2011 as a result of austerity measures to quell a debt crisis.  ANSWER: <b><u>Athens</u></b>
18)	Composer of <i>Appalachian Spring</i> and <i>Rodeo</i> . (The answer does not have to include the letter "A")  ANSWER: Aaron <b><u>Copland</u></b>
19)	Student of Plato who organized all of matter into five elements.  ANSWER: <b><u>Aristotle</u></b>
20)	Company founded by Jeff Bezos that began as an online bookseller, but now sells nearly everything.  ANSWER: <b><u>Amazon.com</u></b>

Period Three—Ten tossups, Ten 2-part bonuses

11. The first major dissenter from this man's views was Alfred Adler. This man created the idea of the Electra and Oedipus complexes. One of this man's most famous works asserts that the title entities are means of wish-fulfillment; that work is *The Interpretation of Dreams*. For 10 points, name this Austrian psychologist who founded psychoanalysis.

ANSWER: Sigmund **Freud**

For 10 points, name these potential female contenders for the 2012 Republican presidential nomination. [10] As of early July 2011, this former governor of Alaska hasn't declared her bid to run for the presidency, though there is widespread speculation she plans to do so.

ANSWER: Sarah **Palin**

[10] This Tea Party favorite and Minnesota congresswoman announced that she'd filed her paperwork to run for the 2012 Republican presidential nomination during a major Republican presidential debate.

ANSWER: Michelle **Bachmann**

12. This artist painted a curved brown path in his *Wheatfield With Crows*. Another work by this artist features two chairs in a painting of a blue-walled room. In addition to that work, *Bedroom in Arles*, this artist also put a blue spire in the middle ground of a work with undulating cypresses and blue hills. For ten points, name this painter noted for his sunflowers and the *Starry Night*.

ANSWER: Vincent **Van Gogh**

This god was the son of Nephtys. For 10 points each:

[10] Name this jackal-headed Egyptian god, the inventor of mummification:

Answer: **Anubis** [or **Inpu** or **Anupu** or **Inepw** or **Yinepew**; accept reasonable pronunciations]

[10] This god was mummified by Anubis after being murdered by Seth. He fathered Anubis by Nephtys.

Answer: **Osiris** [or **Asar**; or **Unnefer**; accept reasonable pronunciations]

13. One branch of this religion is divided into Ismaili and Twelvers, while another branch of this religion known for mysticism is the Sufi. One duty in this religion is zakat, or almsgiving. The most famous duty of this religion involves circling the Kaaba seven times; that duty is the pilgrimage to Mecca. For 10 points, name this religion which regards Muhammad as god's final prophet.

ANSWER: **Islam** [accept either Shi'ite **Islam** or Sunni **Islam**]

Name some things about fluids and the principles that govern them, for ten points each:

[10] This principle states that a floating object displaces its own weight of fluid. It was discovered by a Greek scientist who ran around yelling "eureka."

Answer: **Archimedes'** Principle

[10] This principle, named for a Swiss mathematician, states that as the speed of a fluid increases, its pressure decreases.

Answer: **Bernoulli's** Principle

14. Shuji Nakamura pioneered this technology which came out in the U.S. on June 20th, 2006. One was featured in every Playstation 3, and so it defeated the HD DVD format. For 10 points, name this brand of high-definition video disc named for the color of the laser that reads it.

ANSWER: **Blu-ray** disc [or **Blu-ray** player]



Name some Jewish holidays, for 10 points each:

[10] This holiday commemorates the rededication of the temple. It is most famous for involving menorahs and dreidels, not to mention latkes.

Answer: **Hanukah** [or **Chanukah**; accept reasonable equivalents]

[10] This day of repentance begins with the Kol Nidre prayer. It is the most famous fast in the Jewish calendar.

Answer: **Yom Kippur**

15. In August 2010, a mass grave containing at least 72 bodies was found near a ranch with this nation. The Zeta crime syndicate operates in this nation which is also the home of the Sinaloa drug cartel. President Felipe Calderon has tried to curb drug violence in this nation, especially in Ciudad Juarez and Nuevo Laredo. For 10 points, name this nation, the southern neighbor of the U.S.

ANSWER: **Mexico**

Answer the following about National League baseball teams, for 10 points each:

[10] This team featuring hitters Ryan Braun and Prince Fielder was, as of June 13, 2011, tied for the lead with another NL Central team.

ANSWER: **Milwaukee Brewers** [accept either or both]

[10] As of June 13, 2011, this team was tied with the Brewers. Its highest hitter, Albert Pujols, recently hit two walk off home runs in the same day.

ANSWER: **St. Louis Cardinals** [accept either or both]

16. This 3-letter word means a small pit cut into a tree to collect sap. When placed before “out,” it means to keep an opponent from getting a rebound in basketball. With “boom,” it means a stereo. For ten points, name word for a container or the verb that means to fight with some gloves in a ring.

ANSWER: **box** [accept **boxout** or boom-**box**]

Answer these questions about nuclear reactors, for 10 points each:

[10] Nuclear reactors work through this process in which atoms are split to generate energy.

ANSWER: Nuclear **Fission**

[10] The “heavy” variety of this compound is used to slow down nuclear reactions in reactors. This compound is also used to cool the reactor.

ANSWER: **Water** [or H<sub>2</sub>O]

17. Exceptions to this right include the Miller test and the outcome of *Schenck v. U.S.*, which established the “clear and present danger” rule. The case *Tinker v. Des Moines* dealt with the symbolic variety of this freedom in a school setting. For 10 points, name this freedom guaranteed by the first amendment that allows individuals to express their ideas without censorship.

ANSWER: freedom of **speech** [prompt on **first amendment** before mentioned]

Name some instruments, for ten points each:

[10] This instrument has a keyboard with white and black keys, which, when pressed, cause a hammer to strike strings. Frederic Chopin’s *Minute Waltz* was written for one of these instruments.

Answer: **Piano**

[10] This half-sized flute takes its name from the Italian word for “small.” It features prominently in John Philip Sousa’s *Stars and Stripes Forever*.

Answer: **Piccolo**

18. This composer's *Hammerklavier* is known for its difficulty, while his piano sonatas include the *Appassionata* and *Pathétique* (PAH-thay-TEEK). His sixth symphony is known as the *Pastoral*, while his third is the "Eroica." For ten points, name this German composer of the *Moonlight Sonata*, whose ninth symphony contains lyrics from the *Ode to Joy*.

ANSWER: Ludwig van **Beethoven**

This nation is home to the Incan structure of Machu Picchu. For ten points each:

[10] Name this South American nation with capital at Lima.

Answer: **Peru**

[10] This other South American country is known for its petroleum industry and has its capital at Caracas.

Answer: **Venezuela**

19. This author drew on his experiences in the Far East in his story "Shooting an Elephant" and his collection *Burmese Days*. One story by this author includes Boxer, whose mantra is "I will work harder" and features the rise of Napoleon the pig, while another sees Julia and Winston fall in love before their brainwashing by Big Brother. For 10 points, name this author of *Animal Farm* and *1984*.

ANSWER: George **Orwell**

Name these molecules important to human health, for ten points each:

[10] This class of molecules is made up of carbon as well as hydrogen and oxygen in a two-to-one ratio. Examples include glucose, sucrose, and other sugars and starches.

Answer: **carbohydrates** [or **saccharides**]

[10] Proteins are made up of these building blocks that have an amine group and a carboxyl group. Examples of the twenty different types of these molecules are glycine, tryptophan, and cysteine.

Answer: **amino acids**

20. This language has dialects like Ji Lu and Jiao Liao. It can be romanized with the Wade-Giles and pinyin systems and is the most widely spoken language in the world. The most common dialect of this language is Mandarin. For ten points, name this language spoken in Beijing.

ANSWER: **Chinese**

One scene in this novel sees Jem and Scout saved by Boo Radley from an attack by Bob Ewell as they return from a Halloween pageant. For ten points each:

[10] Name this novel set in the fictional town of Maycomb, Alabama about the trial of Tom Robinson, who is wrongly accused of raping Mayella Ewell.

Answer: **To Kill a Mockingbird**

[10] *To Kill a Mockingbird* was the only novel written by this author awarded the Presidential Medal of Freedom in 2007.

Answer: Harper **Lee**

## Tiebreakers

1. This man's travels were related by Antonio Pigafetta, and he quelled an Easter mutiny against him in Argentina before being killed a year later in a skirmish in the Philippines. Juan Sebastian del Cano actually completed the feat usually ascribed to him aboard the *Victoria*. For 10 points, name this Portuguese navigator whose crew completed the first circumnavigation of the Earth.

ANSWER: Ferdinand **Magellan**

Name some famous physicists, for 10 points each:

[10] This Italian discovered the four largest moons of Jupiter with a telescope, and was placed under house arrest by the Catholic Church for claiming that the earth revolves around the sun.

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

[10] This Danish physicist proposed a namesake model of the atom in which electrons orbited the nucleus.

ANSWER: Niels **Bohr**

2. One short story by this author sees its title character's wife Faith take part in a ritual in the woods. In addition to *Young Goodman Brown*, this author wrote a book in which the Pynchons own the title residence. In another book by this author, Roger Chillingworth is the former husband of Hester Prynne. For 10 points, name this man who wrote *The House of the Seven Gables* and *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne**

Its protagonist is owned by Judge Miller before being stolen. For 10 points each:

[10] Name this novel about the sled dog Buck, who eventually chooses to join a pack of wolves.

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

[10] This man wrote *The Call of the Wild* as well as *White Fang*.

ANSWER: Jack **London**

3. This process consists of the light and dark reactions. This process occurs in the thylakoids and stroma of chloroplasts, which make up the Chlorophyll which capture the light energy that drives this process. For 10 points, name this process used by plants to convert carbon dioxide into sugars and oxygen.

ANSWER: **photosynthesis**

It was involved in the Pig War, for 10 points each:

[10] Name this country invaded by the United States in the Revolution when Benedict Arnold attempted to capture Quebec.

ANSWER: **Canada**

[10] Another American invasion of Canada occurred during this war, which saw the penning of the Star Spangled Banner.

ANSWER: **War of 1812**

4. This woman was the sister of Stheno and Euryale, who were afflicted by the same curse. That curse came after this former priestess in Athena's temple had an affair with Poseidon. This woman's death came at the hands of the son of Zeus and Danaë, who appeared with a reflective shield. For 10 points, name this Gorgon with snakes for hair who turned men into stone until Perseus killed her.

ANSWER: **Medusa**