

2015 SAGES: Spring Academic Game for Elementary Students

tournament written by Alex Dzurick, Audrey Bush, Matt Chalem, James Collier, David Dennis, Charles Hang, Sam Haynes, Spencer Johnson, Jason Loy, Ryan Kennedy, Jared Lockwood, Jack Miller, Luke Schuster & Belle Stanfield

Round 2

1. In Latin, this device's name means "dark chamber." Because light travels in straight lines, the image produced by one of these devices is upside down. Leonardo da Vinci studied these and may have used them for his art. For 10 points, name these devices that consist of a chamber with a small hole called an aperture.

ANSWER: camera obscura

2. COMPUTATION: Carol has 32 oranges, and plans to keep one--fourth of them for herself and give away the rest. She needs to find out how many oranges she will be giving away. She could multiply the total by her portion and subtract that amount to find, for 10 points what number of oranges to give away?

ANSWER: 24 oranges

3. In this poem, the hero is attacked by the title creature while resting "by the Tum-Tum tree." The hero's "vorpal blade went snicker-snack" in this poem that begins, "Twas brillig, and the slithy toves did gyre and gimble in the wabe." For 10 points, name this silly poem by Lewis Carroll.

ANSWER: "Jabberwocky"

4. On this continent, Bernardo O'Higgins and José de San Martín led independence movements. A figure called the "Liberator" created Gran Colombia on this continent. For 10 points, name this continent where Simon Bolívar overthrew the Spanish in what is now Venezuela and Colombia.

ANSWER: South America

5. The highest mountain in this range is Mount Mitchell. The Adirondacks of New York are unusually not part of this range. The trail named for this range runs near the Blue Ridge Parkway in Virginia and North Carolina. For 10 points, name this mountain range in the eastern United States.

ANSWER: Appalachian Mountains [accept Appalachians]

6. These kinds of animals are at least at trophic level 3. These kinds of animals can be classified as specialists if they develop tactics for seeking certain victims, such as beak shape. For 10 points, name this kind of consumer that is always paired with prey, such as sharks, lions and snakes.

ANSWER: predators

7. Operation Rolling Thunder occurred during this war. The US used Agent Orange to eliminate jungle cover during this conflict. Lyndon Johnson sent troops into this war after the Gulf of Tonkin Resolution. For 10 points, name this war that effectively ended with the fall of Saigon.

ANSWER: Vietnam War

8. This painter grew up and lived in La Casa Azul in Mexico City. She painted many self-portraits because she often felt alone, even in the company of her artist husband Diego Rivera. For 10 points, name this Mexican artist, famous for her prominent unibrow.

ANSWER: Frida Kahlo

9. This character is stabbed by a “career” named Cato. He allies with Johanna Mason and Finnick Odair after volunteering as tribute in place of Haymitch. This character lies about marrying Katniss. For 10 points, name this baker that represented District 12 in the 74th Hunger Games.

ANSWER: Peeta Mellark [accept either underlined portion]

10. This procedure is best performed at about 100 beats per minute, so humming “Stayin’ Alive” is an effective strategy. For infants, the compressions in this procedure should only be performed with two fingers. For 10 points, name this emergency medical procedure for saving someone from cardiac arrest.

ANSWER: CPR [accept cardiopulmonary resuscitation]

11. A silica mineral named for these features lines their channels. Magma heats the column of water in these features, eventually producing an eruption of steam and hot water. For 10 points, name these natural features such as Old Faithful, of which half the world’s known examples are in Yellowstone.

ANSWER: geysers

12. In this empire’s mythology, the world once ended because Tlaloc was so mad that his wife was stolen that he made it rain fire instead of water. This people’s night god was named Tezcatlipoca. For 10 points, name these people who might have mistaken a Spanish invader for their god Quetzalcoatl.

ANSWER: Aztecs

13. The 1938 Nobel Peace Prize was given to a group who issued this kind of document to refugees. Travelers to Mecca may have a *hajj* version of this document. American documents of this come with 32 pages for visas. For 10 points, name these documents one must have to travel internationally.

ANSWER: passports

14. This man was once thought to be the author of the Five Classics. Humaneness, or ren, is an important virtue in this man's namesake belief system, which emphasized filial piety, or respect for parents and ancestors. For 10 points, name this writer of the *Analects* who is the most famous ancient Chinese thinker.

ANSWER: Confucius

15. Author e.e. cummings was well-known for *not* using these things in his name. Most acronyms, such as NFL, only contain these kinds of letters. One of these is used as the first-person pronoun in English. For 10 points, name these types of letters, which you might type using the shift key.

ANSWER: capitalized letters [accept uppercase letters]

16. The aneroid type of these devices do not use a liquid such as water or mercury to take their measurement. If these devices are calibrated at sea level, inches of mercury must be added when they are taken to a higher altitude. For 10 points, name these devices that measure air pressure.

ANSWER: barometer

17. This person shared an honor with C.J. Mosley his senior year and won the Arthur Ashe Courage Award at the 2014 ESPYs. He was cut from the Rams and the Cowboys before joining the CFL's Montreal Alouettes. For 10 points, name this former Missouri defensive end who became the first openly gay professional football player.

ANSWER: Michael Alan Sam, Jr.

18. COMPUTATION: Ezra wants to install an octagonal stop sign and needs to know what size to order. The website only lists their sizes by side length, but he wants a sign that has a perimeter of 160 centimeters. Since the sign is an octagon, he can figure, for 10 points, what size side length for his stop sign?

ANSWER: 20 centimeters

19. At this place, Elie Wiesel had "A-7713" tattooed on his arm. Many people in this place died from exposure to Zyklon B. International Holocaust Remembrance Day is celebrated on January 27, the day prisoners were liberated from this place. For 10 points, name this concentration camp in Poland.

ANSWER: Auschwitz II-Birkenau [prompt on concentration camp before mentioned]

20. Doing the FOIL method in reverse generates two of these which are both binomials. The "greatest common" one of these divides two larger numbers without a remainder. For 10 points, name these numbers which when multiplied together create a product.

ANSWER: factors

TB. This character used to have feelings for Amy Lawrence, but fell in love with the girl he saw in front of Jeff Thatcher's house. This character testified that Injun Joe, not Muff Potter, murdered Dr. Robinson. For 10 points, name this character who tricked a group of boys into whitewashing a fence.

ANSWER: Tom Sawyer

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BONUSES

1. Francis Bellamy wrote this text in 1892 as part of a national school celebration. For 10 points each:

[10] Name this short text dedicated “to the Flag,” and “to the Republic for which it stands.”

ANSWER: **Pledge of Allegiance**

[10] These two words were added to the Pledge in 1954, urged on by religious leaders.

ANSWER: **“under God”**

[10] Bellamy originally wrote the Pledge to celebrate this holiday honoring an explorer who supposedly “discovered” America.

ANSWER: (Christopher) **Columbus Day**

2. Because the eyes are sensitive to this type of radiation, welder’s flash can be dangerous. For 10 points each:

[10] Name this type of radiation that is used in blacklights and is blocked by sunscreen.

ANSWER: **ultraviolet** radiation [accept **UV** radiation, **ultraviolet** light, **UV** light]

[10] UV radiation stimulates the body’s production of this vitamin.

ANSWER: vitamin **D**

[10] Sunscreens are often rated by what value that describes how much longer you can remain in the sun as compared with no sunscreen?

ANSWER: **Sun Protection Factor** [accept **SPF**]

3. COMPUTATION: Sally’s mom needs to know how much fence to build to keep their goats from escaping. Sally’s yard is a square and each side is 75 meters long. For 10 points each:

[10] How long in meters is the fence that Sally’s mom will need to build around the perimeter of their yard?

ANSWER: **300** meters

[10] What is the area in square meters enclosed by the fence?

ANSWER: **5625** square meters

[10] Sally decides to subdivide the yard into 25 squares of equal area for each goat to graze in. What is the perimeters of each one of these squares if they are fenced on all four sides?

ANSWER: **60** meters

4. For 10 points each, name these words that all share a prefix meaning “between.”

[10] This word describes a competition between two different schools, usually applied to sports.

ANSWER: **intermural**

[10] College teams playing intermural sports might have to travel on one of these national highways, like the one numbered 70 between St. Louis and Kansas City, Missouri.

ANSWER: **interstate** (highway)

[10] Once the traveling team gets into town, they might stop at a traffic light located at one of these places where two roads meet.

ANSWER: **intersection**

5. Distillation is a common method of doing this, as minerals are left behind during evaporation. For 10 points each:

[10] Name this process of removing salt from water, such as might be done at a plant along an ocean coast.

ANSWER: desalination

[10] This country in the Middle East gets about 40% of its water via desalination, although not from the super-salty Dead Sea that it shares with its neighbor Jordan.

ANSWER: Israel

[10] One other method of desalination is this process that uses a semi-permeable membrane to filter out salt particles, sometimes abbreviated RO.

ANSWER: reverse osmosis

6. The angel Moroni told this man the location of the golden plates, which were outside of his western New York home. For 10 points:

[10] Name this man whose translation of those plates became the major text of the religion he founded.

ANSWER: Joseph Smith

[10] Joseph Smith founded this religion, whose well-known followers include Steve Young and Mitt Romney.

ANSWER: Church of Jesus Christ of Latter Day Saints [or Mormonism or Mormon church]

[10] More than half of this western state's population identifies as Mormon. This state contains Brigham Young University.

ANSWER: Utah

7. This author is famous for his poetry in collections like *Where the Sidewalk Ends*. For 10 points each:

[10] Name this author who also wrote *A Light in the Attic* and *Falling Up*.

ANSWER: Shel Silverstein

[10] In this Silverstein book, a kind plant gives the main character apples and branches.

ANSWER: *The* Giving Tree

[10] The main character of *The Giving Tree* is only known by this name, no matter how old he gets.

ANSWER: Boy

8. The location where these natural disasters begin is known as the epicenter. For 10 points each:

[10] Name these disasters that involve a lot of shaking of the ground and often knock down buildings.

ANSWER: earthquakes [accept tremors or temblors]

[10] An earthquake may be detected by one of these devices that draws a line to represent the intensity of the quake.

ANSWER: seismographs

[10] There are two kinds of waves that earthquakes generate: P waves, which can travel through liquid, and these waves, which cannot.

ANSWER: S-waves [accept secondary waves or shear waves]

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9. A leader once famously spoke about a curtain made of this material descending on Europe. For 10 points each:

[10] Name this material that was said to form a curtain “from Stettin in the Baltic to Trieste in the Adriatic.”

ANSWER: **iron**

[10] The leader who gave the Iron Curtain speech was this British prime minister during World War II.

ANSWER: Winston **Churchill**

[10] Churchill gave that speech at Westminster College in this state, also home to President Harry S Truman.

ANSWER: **Missouri**

10. Honey Lemon helps the main character defeat Professor Callaghan in this 2014 film. For 10 points each:

[10] Name this film which sees the main character dealing with the death of his brother Tadashi.

ANSWER: **Big Hero 6**

[10] That main character, Hiro Hamada, is accompanied by this invention of Tadashi’s which frequently asks “Are you satisfied with your care?”

ANSWER: **Baymax**

[10] Tadashi attended a university in this city, where Fred serves as the mascot.

ANSWER: **San Fransokyo** [accept **San Fransokyo Institute of Technology**]

11. COMPUTATION: Vivian’s mom’s parents are 73 and 71 years old, and her dad’s parents are 74 and 78 years old. For 10 points each:

[10] What is the average age of Vivian’s grandparents?

ANSWER: **74** years old

[10] What is the median age of Vivian’s grandparents?

ANSWER: **73.5** years old

[10] Her dad’s mom is 74 years old, and her dad is one year older than half his mom’s age. How old is Vivian’s dad?

ANSWER: **38** years old

12. The Supreme Court declared this legal in the case *Korematsu v. U.S.* For 10 points each:

[10] Name this imprisonment of members of a specific ethnic group during World War II.

ANSWER: **internment** of **Japanese**-Americans [accept equivalents that describe the forced imprisonment of Japanese-Americans during World War II]

[10] Executive Order 9066, authorizing internment, was issued by this president in 1942.

ANSWER: **Franklin Delano Roosevelt** [accept **FDR**; prompt on **Roosevelt**]

[10] At the time, J. Edgar Hoover was the leader of this U.S. agency, focused on domestic intelligence gathering and law enforcement, that helped to spy on Japanese-Americans.

ANSWER: **Federal Bureau of Investigation** [accept **FBI**]

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13. In this poem, the narrator stands “doubting, dreaming dreams no mortal ever dared to dream before.” For 10 points each:

[10] Name this poem where the title animal sits on a statue in the narrator’s study repeating one word.

ANSWER: “The **Raven**”

[10] Give that repeated word.

ANSWER: **nevermore**

[10] Name the author of “The Raven” who also wrote “The Tell-Tale Heart” and “Annabel Lee”.

ANSWER: Edgar Allen **Poe**

14. Species in this biome include toucans and chameleons. For 10 points each:

[10] This biome is common in areas near the equator and includes the emergent zone. It is characterized by heavy precipitation.

ANSWER: tropical **rainforest**

[10] Another zone in a rainforest is this topmost layer of tree branches and leaves that shades the understory.

ANSWER: **canopy**

[10] In addition to the rain, this process of evaporation from plant leaves contributes to the high humidity found in rainforests.

ANSWER: **transpiration**

15. For 10 points each, answer these questions about times that Abraham Lincoln said or wrote something important.

[10] This speech describes “government of the people, by the people, for the people” and begins with the phrase “Four score and seven years ago.”

ANSWER: **Gettysburg** Address

[10] This 1863 speech freed all slaves in states under Confederate control.

ANSWER: **Emancipation Proclamation**

[10] Lincoln had a series of famous debates with this Democratic senator from Illinois.

ANSWER: Stephen **Douglas**

16. This musical device may be single or double. For 10 points each:

[10] Name these pieces of wood attached to woodwind instruments with ligatures.

ANSWER: **reeds**

[10] The highest pitched double reed instrument is this one which is used to tune an orchestra.

ANSWER: **oboe**

[10] Name either of the double reed instruments pitched lower than the oboe.

ANSWER: **English horn** or **bassoon**

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17. This name is shared by state and the river that cut the Grand Canyon. For 10 points each:

[10] Give this name also shared by a university located in Boulder.

ANSWER: Colorado

[10] This mountain in Colorado is the highest point in the Rocky Mountains.

ANSWER: Mount Elbert

[10] The Colorado River ends in this country, on its Baja California peninsula.

ANSWER: Mexico

18. This Gary Paulsen novel sees Brian trying to survive in the wilderness. For 10 points each:

[10] Name this novel in which Brian is equipped only with the title object, given to him by his mother.

ANSWER: Hatchet

[10] Brian was heading to visit his father at the oil fields in this country.

ANSWER: Canada

[10] This sequel to *Hatchet* sees Brian using a raft to help save a psychologist named Derek.

ANSWER: *The* River

19. For 10 points each, answer these questions about recent airplane incidents.

[10] In February 2015, TransAsia Airways Flight 235 crashed into the Keelung River in this country.

ANSWER: Taiwan

[10] A Germanwings flight crashed into this European mountain range in March 2015.

ANSWER: French Alps

[10] A flight heading to China disappeared after leaving Kuala Lumpur in this country in the Indian Ocean.

ANSWER: Malaysia

20. This artist portrayed the bombing of a small Spanish town in his painting *Guernica*. For 10 points each:

[10] Name this Spanish artist who created many of his best works during his Blue period.

ANSWER: Pablo Picasso

[10] Picasso co-founded this art movement with Georges Braque. A review of one of Braque's paintings gives this movement its name.

ANSWER: Cubism

[10] Many of Picasso's paintings feature this string instrument, including a 1903 painting of an old man playing it on the street.

ANSWER: guitar

TB. The refractive index is the ratio of this value in a vacuum to this value in a medium. For 10 points each:

[10] Name this universal limit, which is 299,792,458 meters per second in a vacuum.

ANSWER: **speed of light** [accept **c**]

[10] Approximately how long does it take light from the sun to reach Earth, to the nearest minute?

ANSWER: **eight** minutes [It takes about 8 minutes and 19 seconds, or ~8.3 minutes.]

[10] Information can be transmitted using light in these kinds of cables which use thin strands of plastic or glass instead of metal.

ANSWER: **fiber optic** cables [accept **optical fibers**]