

2024-2025

**OSSAA
AREA
CHAMPIONSHIP**

High School

GAME 1

Welcome to the Oklahoma Secondary School Activities Association Academic Bowl. Audience, please remember this competition is between the two teams here. Do not whisper or say aloud the answer to the question. Please turn off all cell phones, tablets, or any device that can receive or send messages. If these go off, even silently, they could interfere with the wireless system used in our competition. Even if this room is not wireless, an adjoining room could be using a wireless system. Coaches, team members, and guests are to sit behind their team. As in all contests, sportsmanship is important. Coaches, your protests need to be at the allowed times. Team members, you will remain quiet while the opposing team is answering during both the toss-up and sixty second quarters.

Respect for the opponent, spectators, coaches, and officials is necessary at all levels of athletics and activity programs. At today's game, everyone's behavior should be characterized by generosity and genuine concern for others. Sportsmanship is everyone's responsibility, do the right thing.

- Introduce yourself and the chief judge.
- **Give your four count.** – Do this for every match (Game Procedures A – 11)
- Have the chief judge check the buzzers.

Note (do not read):

Official closest to scorekeeper: Make sure that scorekeeper has **full names** of students and check after first few questions that they are fully shading in correct answers, and marking correct answers only.

Official closest to timekeeper: Make sure the timekeeper is starting the clock and clearing for the first few questions.

OSSAA 2024-2025
AREA GAME 1

QUARTER 1
TOSS-UP QUESTIONS

1. This term describes the vibrant cultural period during the 1920s, centered in the African American community in a neighborhood of New York City. What was this cultural movement marked by a flourishing of arts, music, and literature and was headed by people like Alain Locke, W.E.B. Du Bois, and Zora Neale Hurston?

Answer: Harlem Renaissance

2. **Math Computation:** What is the supplement, in degrees, of a 41.2 degree angle?

Answer: 138.8

3. This poet is known for his dramatic monologues and his exploration of psychological complexity in characters. Born in 1812, he married Elizabeth Barrett, herself a renowned poet. Who is this Victorian poet whose works include *Porphyria's Lover* and *My Last Duchess*?

Answer: Robert Browning

4. This rapper and actor, also known by his birth name Yasiin Bey, is renowned for his thought-provoking lyrics and distinctive voice. He gained fame with his debut solo album *Black on Both Sides* and as part of the duo Black Star with Talib Kweli. Who is this artist known for tracks like *UMI Says* and *Mathematics*?

Answer: Mos Def

5. This term refers to a chain of amino acids joined by covalent bonds formed during protein synthesis. These chains fold into specific structures to perform vital biological functions. What is this molecule essential to the structure and function of living organisms?

Answer: Polypeptides

**OSSAA 2024-2025
AREA GAME 1
QUARTER 1
TOSS-UP QUESTIONS**

6. This collection of stories is framed as a storytelling contest among pilgrims journeying to a shrine in England. Written in the 14th century, it explores a wide range of social classes and human behaviors through tales like *The Knight's Tale* and *The Wife of Bath's Tale*. What is this work by Geoffrey Chaucer?

Answer: *The Canterbury Tales*

7. **Science computation:** A projectile is launched horizontally off the end of a cliff at 85 meters per second. If the projectile hits the ground after 16.0 seconds, how far away, in meters, from the base of the cliff did the projectile land?

Answer: 1360 meters

8. Defined as the amount of heat required to raise the temperature of one gram of water by one degree Celsius at one atmospheric pressure, this unit of heat is commonly used in chemistry to measure thermal energy changes during chemical reactions. What is this unit called?

Answer: Calorie

9. **Math Computation:** Solve the following logarithmic equation for x: $\log_x(16) = 2$ [read: log base x of 16 equals 2].

Answer: (x=) 4

10. This long-running animated show was originally conceived as short animated segments in the Tracey Ullman Show before becoming its own series. What is this series, created by Matt Groening, that has run for 34 years, making it the longest running American animated series?

Answer: *The Simpsons*

11. As of September, 2024, this U.S. military base, Located just 60 miles from the demilitarized zone in South Korea, is home to more than 40,000 people and plays a vital role in the U.S.-South Korean alliance. What is the name of this base?

Answer: Camp Humphreys

**OSSAA 2024-2025
AREA GAME 1
QUARTER 1
TOSS-UP QUESTIONS**

12. This mystery novel features a murder aboard a steamer traveling through Egypt. The plot unfolds among a cast of characters, each with secrets and motives, including a wealthy heiress and her entourage. Published in 1937, it was later adapted into several films. What is this work by Agatha Christie featuring Hercule Poirot?

Answer: *Death on the Nile*

13. **Math Computation:** Angle theta is in quadrant four and the cosine of angle theta equals negative 5 over 13. What is the sine of angle theta?

Answer: $-12/13$

14. This early proposal aimed to unify the American colonies for mutual defense and governance during the French and Indian War. Introduced in 1754, it suggested a centralized government but was ultimately rejected by both the colonies and the British Crown. What is this plan, a precursor to later efforts at American unification?

Answer: Albany Plan of Union

15. This type of sentence issues a command, request, or instruction and usually ends with a period or exclamation point. What is the name of this sentence type that can sometimes omit the subject?

Answer: Imperative Sentence

16. This fine arts term describes a painting technique where cracks in the paint layer create a pattern resembling reptilian scales. It is often an unintended consequence of aging or improper application of materials. What is this term that refers to the distinctive appearance caused by the separation or cracking of paint?

Answer: Alligator Skinning

**OSSAA 2024-2025
AREA GAME 1
QUARTER 1
TOSS-UP QUESTIONS**

17. This 19th-century German chemist is known for his work in spectrum analysis, which led to the discovery of the elements cesium and rubidium. Who is this scientist who also played a significant role in developing the field of gas analysis and is credited with improving the design of a laboratory burner that now bears his name?

Answer: Robert Bunsen

18. This major civil disturbance occurred in a neighborhood of Los Angeles and was sparked by an incident between the police and an African American motorist during a routine traffic stop. What is this six-day riot in 1965 that resulted in 34 deaths and over \$40 million in property damage?

Answer: Watts Riot

19. This Nobel Prize-winning physicist made advancements in quantum electrodynamics and is credited with making particle interaction diagrams, now named after him. Who is this scientist who was a key investigator in the Rogers Commission, which probed the Challenger space shuttle disaster?

Answer: Richard Feynman

20. This politician served as Governor of Oklahoma from 1927 to 1929, before being impeached and removed from office due to accusations of corruption and inability to manage state affairs effectively. Who is this politician who was the second Oklahoma governor to be impeached?

Answer: Henry S. Johnston

Moderator: (Check score with chief judge and scorekeeper.)

The score at the end of the first quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge: (Restate the score if they have changed because of protests.)

(In case of a tie after the first quarter) Since the score is tied, we will continue with additional toss-up questions until one team scores. (Restate the score if necessary)

2nd Quarter – Sixty Second Instructions

Moderator **The second quarter of sixty second questions is about to begin. Everyone please be seated.**

The categories for the 2nd quarter are: (Brief description)

- 1. SOCIAL STUDIES – ISLAND NATION CAPITALS**
- 2. LITERATURE - AUTHORS BY CHARACTER**
- 3. SCIENCE – CHEMISTRY "A" TERMS**

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) is ahead at this time, they will have the choice to play or defer until the 4th quarter.

- You will have 10 seconds to make your decision. (School name) do you choose to play or defer?**
- (Address playing team) You will have 10 seconds to choose your category (re-read the above categories)**
- (If the 10 second buzzer goes off, the moderator will ask for an immediate response.)**
- Since (school name) is playing first, they may move to a position behind their captain. (Other team) will put down their pencils until their time to play. Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your choice.**

The selections are:

- 1.**
- 2.**

Moderator (Check the score with the chief judge and score keeper.)

The score at the end of the first half is:

(School name) _____ has _____ points

(School name) _____ has _____ points.

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charged time out. (Pause briefly for protests.)

This concludes the first half of play. We will pause for substitutions

Substituting team members, please check in with the scorekeeper. WE WILL NOW BEGIN

3RD QUARTER TOSS-UP QUESTIONS.

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 1
QUARTER 2
LIGHTNING ROUND
Social Studies: Island Nation Capitals**

Directions: Given the name of an "Island Nation," name the capital.

Maldives	Malé
Iceland	Reykjavik
Madagascar	Antananarivo
Philippines	Manila
Sri Lanka	Sri Jayawardenepura Kotte
New Zealand	Wellington
Fiji	Suva
Jamaica	Kingston
Malta	Valletta
.Bahamas	Nassau
Extras:	
.Mauritius	Port Louis
.Japan	Tokyo

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 1
QUARTER 2
LIGHTNING ROUND**

Literature: Authors by Character

Directions: Directions: Given the character, name the author who created them.

Mr. Kurtz	Joseph Conrad
Carol Kennicott	Sinclair Lewis
Jim Hawkins	Robert Louis Stevenson
Dr. Pangloss	Voltaire
Magua	James Fenimore Cooper
Daisy Buchanan	F. Scott Fitzgerald
Ellen Coldfield	William Faulkner
Robert Jordan	Ernest Hemingway
Bigger Thomas	Richard Wright
. Charles Bovary	Gustave Flaubert
Extras:	
. Philip Pirrip	Charles Dickens
. Wendy Darling	J.M. Barrie

Total 1: _____ Total 2: _____

OSSAA 2024-2025
AREA GAME 1
QUARTER 2
LIGHTNING ROUND

Science: Chemistry "A" Terms

Directions: Directions: From the definitions given, identify each term that begins with "A".

Any element of Group II of the periodic table	Alkaline-Earth Metal
A solid appearing material without crystalline structure	Amorphous
Enzyme that catalyzes the breakdown of starch	Amylase
Bronsted calls it a proton donor	Acid
A compound that has a hydrocarbon group and one or more formyl groups	Aldehyde
Material composed of two or more metals	Alloy
Any substance capable of acting as either an acid or a base	Amphoteric
A negative ion	Anion
Substance that can absorb water from its surroundings	Anhydrous
. The process of one substance being attracted and held to the surface of another	Adsorption
Extras:	
. An element whose highest energy electron is in the 5f sublevel	Actinide
. A compound containing a hydrocarbon group and one or more hydroxyl groups	Alcohol

**OSSAA 2024-2025
AREA GAME 1
QUARTER 3
TOSS-UP QUESTIONS**

21. This historical novel presents a detailed account of life during the Great Plague of London in 1665. Written as a first-person narrative, it blends fact and fiction to depict the social, economic, and personal impacts of the epidemic. Published in 1722, what is this work by Daniel Defoe?

Answer: *A Journal of the Plague Year*

22. This empire, led by Sargon the Great, is considered the world's first multicultural empire with a central government. It expanded through military conquest and established trade beyond Mesopotamian borders. What is this empire that existed from 2234 to 2154 B.C.?

Answer: Akkadian Empire

23. This biome is characterized by its cold temperatures, permafrost, and lack of trees, with vegetation consisting of mosses, lichens, grasses, and shrubs. Found in the Arctic and at high elevations, it supports wildlife adapted to extreme conditions, such as arctic foxes. Name this ecosystem known for its harsh climate and short growing seasons.

Answer: Tundra

24. This politician served as the 45th governor of Texas. Elected in 1990, she was a strong advocate for education reform, and women's rights in government. Who is this female leader, remembered for her iconic 1988 Democratic National Convention speech?

Answer: Ann Richards

25. This term refers to a compound derived from acetic acid, commonly used in the production of plastics, textiles, and photographic film. It is also a type of fabric known for its silk-like properties and is often used in clothing and home furnishings. What is this versatile material with applications in both chemistry and industry?

Answer: Acetate

26. This figure from Greek mythology is a symbol of rebellion and suffering. He is known for defying the gods by stealing fire and giving it to humanity, an act that enabled civilization to flourish. As punishment, he was chained to a rock where an eagle would eat his liver daily, only for it to regenerate. Who is this titan of Greek mythology?

Answer: Prometheus

**OSSAA 2024-2025
AREA GAME 1
QUARTER 3
TOSS-UP QUESTIONS**

27. This theory describes how enzymes interact with substrates, proposing that the active site of an enzyme is flexible and changes shape to bind the substrate more effectively. This dynamic adjustment enhances the enzyme's ability to catalyze biochemical reactions. What is this model that explains enzyme specificity and efficiency?

Answer: Induced Fit Theory

28. This novel follows the life of an orphan who rises from humble beginnings to wealth, only to discover the true source of his fortune. Key characters include the mysterious benefactor Magwitch and the eccentric Miss Havisham. What is this work by Charles Dickens?

Answer: *Great Expectations*

29. **Math Computation:** Solve the following system of equations using substitution: $x = y - 4$ and $3x + 2y = 18$. Express your answer as coordinates, (x, y) [read: x comma y].

Answer: (2, 6)

30. This distinct style of animation, characterized by colorful artwork, vibrant characters, and fantastical themes often employs limited animation techniques for efficiency while maintaining a high level of detail. Which style, originating from Japan, includes series and films like *Naruto*, *Spirited Away*, and *Attack on Titan*?

Answer: Anime

31. After Hurricane Helene struck in early October 2024, the U.S. government deployed additional resources to aid in recovery efforts. What organization sent over 3,500 personnel to help with the crisis, including 1,200 sent specifically to North Carolina?

Answer: FEMA

32. **Math Computation:** Find the first derivative of the function: $f(x) = 4x^3 + 7x^2 - 12x + 85$ [read: F of x equals 4 x cubed plus 7 x squared minus 12x plus 85].

Answer: $12x^2 + 14x - 12$ [read: 12 x squared plus 14 x minus 12]

**OSSAA 2024-2025
AREA GAME 1
QUARTER 3
TOSS-UP QUESTIONS**

33. This Russian playwright and short story author is considered a pioneer of modern drama. A master of realism, his works often depict ordinary lives with deep psychological insight. Name this author whose notable plays include *The Seagull*, *Uncle Vanya*, and *The Cherry Orchard*.

Answer: Anton Chekhov

34. These joints are the most common type in the human body, characterized by a fluid-filled cavity that reduces friction and allows for a wide range of motion. Examples include the shoulder, knee, and hip joints. They are classified into types such as hinge, ball-and-socket, and pivot joints. What are these joints essential for movement?

Answer: Synovial joints

35. This American politician and attorney was a prominent figure in the Republican Party and served as the Senate Majority Leader before running for President of the United States in the 1996 election. Who is this former decorated veteran of World War II that lost the presidential race to Bill Clinton?

Answer: Bob Dole

36. This poetry collection explores the life of an African American girl as she grows into adulthood. Written in 1949, it won the Pulitzer Prize for Poetry, making its author the first African American to receive the award. What is this work by Gwendolyn Brooks?

Answer: *Annie Allen*

37. **Math Computation:** Use the quotient rule to find the derivative, with respect to x , of the following expression: $x/(x + 3)$ [x over the quantity x plus 3].

Answer: $3/(x + 3)^2$ [3 over the quantity x plus 3 end quantity squared]

38. This physicist revolutionized science by altering our understanding of space, time, and energy with his theories of relativity. His famous equation established relationships between mass and energy. Awarded the Nobel Prize in 1921 for his explanation of the photoelectric effect, who is this scientist of the 20th century?

Answer: Albert Einstein

**OSSAA 2024-2025
AREA GAME 1
QUARTER 3
TOSS-UP QUESTIONS**

39. This country music icon was a key figure in the outlaw country movement of the 1970s, often performing with Willie Nelson and Johnny Cash. Who is this artist known for songs like *Good Hearted Woman* and *Mammas Don't Let Your Babies Grow Up to Be Cowboys*?

Answer: Waylon Jennings

40. **Math Computation:** A transversal cuts across two parallel lines. If the measures of two alternate exterior angles are $(3x + 10)$ and $(5x - 20)$ degrees, what are the measures of the two angles in degrees?

Answer: 55

Moderator (Check score with chief judge and scorekeeper.)

The score at the end of the third quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge (Restate the score if they have changed because of protests.)

4th Quarter – Sixty Second Instructions

Moderator **The fourth quarter of sixty second questions is about to begin. Everyone please be seated.**

The categories for the 4th quarter are: (Brief description)

1. SCIENCE – FAMOUS ASTRONOMERS

2. MATH – FUNCTION EVALUATION

3. FINE ARTS – GREEK PREFIXES

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) chose first in the 2nd quarter, (school name) will have the first choice this quarter.

You will have 10 seconds to choose your category.

(Active team) may move to a position behind the captain. (Other team) put down your pencils.

Captain, all answers will come from you unless you defer to another student.

Moderator (School name) **You will have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your selection.**

The selections are:

1.

2.

Moderator (Check the score with the chief judge and score keeper) **The score at the end of the game is:**

(School name) _____ has _____ points

(School name) _____ has _____ points

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charges time out.

(Restate the scare if it has changed)

(If the game is tied, sudden death questions will be asked.)

Because the game is tied, sudden death toss-up questions will be asked. Would either team like to make substitutions? Again, this is not a time for coaches to confer with their team. (Pause for substitutions.)

Moderator **This concludes the game. Congratulations to both teams. Please check your bracket and move to the next round as quickly as possible.**

OSSAA 2024-2025
AREA GAME 1
QUARTER 4
LIGHTNING ROUND

Science: Famous Astronomers

Directions: From the information given, name each of the following famous astronomers.

Discovered the planet Uranus	William Herschel
Developed the first modern theory of a heliocentric universe	Nicholas Copernicus
First astronomer to classify stars by their spectra	Annie Jump Cannon
Italian scientist who was burned at the stake for teaching a heliocentric view of the universe.	Giordano Bruno
Discovered the planet Pluto	Clyde W. Tombaugh
First to see the moons of Jupiter	Galileo Galilei
Developed the laws of planetary motion	Johannes Kepler
Discovered the red shift	Edwin Hubble
Danish astronomer whose observations assisted Kepler in developing his famous law	Tycho Brahe
. In 1682, he correctly predicted the return of the comet that now bears his name	Edmund Halley

Extras:

. Discovered Neptune through mathematical prediction	Urbain Jean Joseph Le Verrier
. Ancient astronomer whose model of an Earth-centered universe was not challenged for centuries	Claudius Ptolemy

Total 1: _____ Total 2: _____

OSSAA 2024-2025
AREA GAME 1
QUARTER 4
LIGHTNING ROUND

Math: Function Evaluation

Directions: Given function of $f(x)=x^2-x+2$, find each of the following.

$f(1)$	2
$f(2)$	4
$f(0)$	2
$f(3)$	8
$f(-2)$	8
$f(21)$	1.75
$f(4)$	14
$f(-3)$	14
$f(-1)$	4
$f(-21)$	2.75
Extras:	
$f(5)$	22
$f(-4)$	22

Total 1: _____ Total 2: _____

OSSAA 2024-2025
AREA GAME 1
QUARTER 4
LIGHTNING ROUND

Fine Arts: Greek Prefixes

Directions: I will give you the first letter of a Greek Prefix followed by its meaning in English. You give the prefix.

A; both; around	Amphi
C; universe	Cosmo
P; sound	Phono
P; light	Photo
M; large	Macro
H; different	Hetero
D; people	Demo
N; nerve	Neuro
B; life	Bio
.T; god	Theo
Extras:	
.T; heat	Thermo
.A; against	Anti

**OSSAA 2024-2025
AREA GAME 1**

E1. **Math Computation:** What is the volume of a sphere with a radius of 10 meters?

Answer: 4000π cubic meters

E2. This poet and playwright is known for her lyrical verse and mastery of the sonnet form. The first woman to win the Pulitzer Prize for Poetry in 1923, her notable works include *Renascence* and *The Ballad of the Harp-Weaver*. Who is this influential figure of 20th-century American poetry?

Answer: Edna St. Vincent Millay

E3. This American indie pop band gained widespread acclaim with their 2012 album "Some Nights," featuring the Grammy-winning hit *We Are Young*. Known for their anthemic sound and the distinctive vocals of Nate Ruess, they also had success with singles like *Carry On*.

Answer: fun.

E4. This term refers to migrants, mainly from Oklahoma, who moved west during the Great Depression and Dust Bowl in search of work and better living conditions. Many settled in California, facing hardship and discrimination. What is this term symbolizing resilience and displacement in the 1930s?

Answer: Okies

E5. This male voice type lies between the bass and tenor ranges, typically spanning from G below middle C to the G above it. Known for its warm, rich tone, it is one of the most common male vocal ranges, often featured in both opera and choral music. What is this middle-range male voice type called?

Answer: Baritone

E6. **Math Computation:** Convert the hexadecimal number A7 to binary.

Answer: 10100111

**OSSAA 2024-2025
AREA GAME 1**

E7. Set in 1936 Pittsburgh, this play examines the power of family, and the tension between preserving the past and seeking progress. The play tells the story of a brother and sister debating the fate of a family heirloom, a piano carved with the history of their ancestors. What is this Pulitzer Prize-winning work by August Wilson?

Answer: The Piano Lesson

E8. This geological feature is a streamlined hill composed of glacial till, shaped by the movement of a glacier. Often found in clusters, its steep side faces the direction from which the ice advanced, while the gentler slope indicates the direction of flow. What is this landform commonly associated with glaciated landscapes?

Answer: Drumlin

E9. This U.S. legislation, formally known as the Servicemen's Readjustment Act, provided various benefits for returning World War II veterans, including low-cost mortgages, loans to start a business, and tuition and living expenses for higher education. What is this bill, signed into law in 1944?

Answer: G.I. Bill

E10. This landmark 1887 experiment aimed to detect the presence of a luminiferous aether, once thought necessary for light waves to travel. By using an interferometer, it demonstrated that the speed of light is constant regardless of Earth's motion through space. What is this experiment that paved the way for Einstein's theory of relativity?

Answer: Michelson-Morley Experiment

2024-2025

**OSSAA
AREA
CHAMPIONSHIP**

High School

GAME 2

(BEGINNING OF GAME)

Welcome to the Oklahoma Secondary School Activities Association Academic Bowl. You have previously been instructed regarding the rules. Please turn off all cell phones, tablets, or any device that can receive or send messages. Coaches, team members, and guests are to sit behind their team. Coaches, your protests need to be at the allowed times.

- Introduce yourself and the chief judge.
- **Give your four count.** – Do this for every match (Game Procedures A – 11)
- Have the chief judge check the buzzers.

Note (do not read):

Official closest to scorekeeper: Make sure that scorekeeper has **full names** of students and check after first few questions that they are fully shading in correct answers, and marking correct answers only.

Official closest to timekeeper: Make sure the timekeeper is starting the clock and clearing for the first few questions.

**OSSAA 2024-2025
AREA GAME 2**

**QUARTER 1
TOSS-UP QUESTIONS**

1. This series of pamphlets, written under a pseudonym, was aimed at opposing the imposition of a new coinage in Ireland by the British government in the 1720s. The letters argued for Irish economic independence and exposed the exploitative nature of English policies. What is this politically charged work by Jonathan Swift?

Answer: *Drapier's Letters*

2. These international treaties establish standards for treatment during war, including the protection of wounded soldiers, prisoners of war, and civilians. Originally adopted in 1864, they were expanded in the 20th century to address modern warfare. What is this series of agreements forming the foundation of international humanitarian law?

Answer: Geneva Convention(s)

3. This comedic play, first performed in 1777, was an adaptation of John Vanbrugh's *The Relapse*. It focuses on the escapades of the rakish Lord Foppington and other characters in a fashionable spa town. What is this work by Richard Brinsley Sheridan?

Answer: *A Trip to Scarborough*

4. This term refers to the boundary surrounding a black hole beyond which nothing, not even light, can escape due to the immense gravitational pull. It marks the point at which the escape velocity exceeds the speed of light, effectively separating the observable universe from the black hole's interior. What is this critical region in astrophysics?

Answer: Event Horizon

5. This art movement, founded in 1915 by Russian artist Kazimir Malevich, focuses on basic geometric shapes and a limited color palette to convey pure artistic expression, free from representational or narrative constraints. Known for the work *Black Square*, what is this avant-garde movement that influenced modern art?

Answer: Suprematism

**OSSAA 2024-2025
AREA GAME 2
QUARTER 1
TOSS-UP QUESTIONS**

6. This wrestling family gained fame in the 1980s, particularly in Texas with World Class Championship Wrestling, under the leadership of Fritz, a former NWA World Champion. His sons, including David, Kerry, Kevin, Mike, and Chris, became stars, but the family also endured numerous tragic losses. Name of this iconic wrestling family.

Answer: The Von Erich Family (Accept: The Von Erich Brothers)

7. This U.S. Air Force General was known for his strategic bombing campaigns during World War II. Who is this general whose tactics aimed to disrupt enemy logistics and infrastructure, significantly impacting the war's course, and later became the Chief of Staff of the U.S. Air Force?

Answer: Curtis LeMay

8. Invented in 1836, this device is used in applications ranging from protecting sensitive electronic equipment to preventing signal interception. It is designed to block electromagnetic fields by using a conductive enclosure to redistribute electrical charges and cancel external influences. What is this structure named after a famous scientist?

Answer: Faraday Cage (Accept: Faraday Shield)

9. **Math Computation:** Solve the following equation for L: $L/5 + 15 = 30$ [read: L over 5 plus 15 equals 30].

Answer: (L=) 75

10. These Y-shaped proteins are produced by B cells in response to antigens and play a crucial role in the immune system. They recognize and bind to specific foreign substances, neutralizing them or marking them for destruction by other immune cells. What are these molecules essential for adaptive immunity?

Answer: Antibodies

11. **Math Computation:** What is the exact value of the cosecant of three pi over 2 radians?

Answer: -1

**OSSAA 2024-2025
AREA GAME 2
QUARTER 1
TOSS-UP QUESTIONS**

12. This historical novel, set in 1687 Connecticut, follows Kit Tyler, a young woman from Barbados who struggles to adapt to the strict Puritan community. Accused of witchcraft due to her friendship with an ostracized Quaker woman, Kit must navigate fear and prejudice. What is this Newbery Medal-winning book by Elizabeth George Speare?

Answer: The Witch of Blackbird Pond

13. As of November 2024, this painting, created in 1642 by Rembrandt and measures 12 by 14.5 feet is undergoing a public restoration at the Rijksmuseum in Amsterdam to preserve its legacy. What is the name of this monumental work?

Answer: The Night Watch

14. **Math Computation:** What is the sum of the angles in a convex heptagon, in degrees?

Answer: 900

15. This poet, playwright, and social activist was a leading figure of the Harlem Renaissance, celebrated for his works that explored the African American experience. Known for blending jazz rhythms with poetry, his notable works include *The Weary Blues* and *Montage of a Dream Deferred*. Who is this influential 20th-century writer?

Answer: Langston Hughes

16. This country is famously known as the "Land of Fire and Ice" due to its unique combination of glaciers, which cover 11% of its landmass, and its active volcanic landscape. What is this Nordic island nation?

Answer: Iceland

17. This term in economics refers to a reduction in the value of an asset or the amount repaid to creditors, often seen during debt restructuring or financial crises. It reflects the discounted amount investors accept compared to the full face value of the debt. What is this term?

Answer: Depreciation (Accept: Haircut)

**OSSAA 2024-2025
AREA GAME 2
QUARTER 1
TOSS-UP QUESTIONS**

18. **Math Computation:** Use the chain rule to find the derivative, with respect to x , of the following expression: $\cos(x^2 + 2)$ [read: cosine of the quantity x squared plus 2 end quantity].

Answer: $-2x\sin(x^2 + 2)$ [read: negative $2x$ sine x squared plus 2]

19. This annual music event began in 2007, and is held every year in Pryor, Oklahoma. What is this music festival that brings together popular rock and metal acts from both Oklahoma and the rest of the nation including Aranda, Motley Crue, and Rob Zombie?

Answer: Rocklahoma

20. These small, circular DNA molecules are separate from the chromosomal DNA and are commonly found in bacteria and some eukaryotes. They often carry genes that confer advantageous traits, such as antibiotic resistance, and are widely used in genetic engineering as vectors for gene transfer. What are these genetic elements?

Answer: Plasmids

Moderator: (Check score with chief judge and scorekeeper.)

The score at the end of the first quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge: (Restate the score if they have changed because of protests.)

(In case of a tie after the first quarter) Since the score is tied, we will continue with additional toss-up questions until one team scores. (Restate the score if necessary)

2nd Quarter – Sixty Second Instructions

Moderator **The second quarter of sixty second questions is about to begin. Everyone please be seated.**

The categories for the 2nd quarter are: (Brief description)

- 1. POP CULTURE – BILLBOARD TOP 100 HITS 1984**
- 2. POP CULTURE – 2024 EMMY WINNERS**
- 3. POP CULTURE – 2014 MOVIES**

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) is ahead at this time, they will have the choice to play or defer until the 4th quarter.

- You will have 10 seconds to make your decision. (School name) do you choose to play or defer?**
- (Address playing team) You will have 10 seconds to choose your category (re-read the above categories)**
- (If the 10 second buzzer goes off, the moderator will ask for an immediate response.)**
- Since (school name) is playing first, they may move to a position behind their captain. (Other team) will put down their pencils until their time to play. Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your choice.**

The selections are:

- 1.**
- 2.**

Moderator (Check the score with the chief judge and score keeper.)

The score at the end of the first half is:

(School name) _____ has _____ points

(School name) _____ has _____ points.

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charged time out. (Pause briefly for protests.)

This concludes the first half of play. We will pause for substitutions

Substituting team members, please check in with the scorekeeper. WE WILL NOW BEGIN 3RD QUARTER TOSS-UP QUESTIONS.

Total 1: _____ Total 2: _____

OSSAA 2024-2025
AREA GAME 2
QUARTER 2
LIGHTNING ROUND

Pop Culture: Billboard Top 100 Hits 1984

Directions: Given the song, name the artist. All songs were on the Billboard Top 100 list in 1984.

<i>Footloose</i>	Kenny <u>Loggins</u>
<i>Jump</i>	Van Halen
<i>Hello</i>	Lionel <u>Richie</u>
<i>Karma Chameleon</i>	Culture Club
<i>Owner of a Lonely Heart</i>	Yes
<i>Time After Time</i>	Cyndi <u>Lauper</u>
<i>Sister Christian</i>	Night Ranger
<i>Break My Stride</i>	Matthew <u>Wilder</u>
<i>99 Luftballons</i>	Nena
<i>.Oh Sherrie</i>	Steve <u>Perry</u>
Extras:	
<i>.That's All</i>	Genesis
<i>.Cruel Summer</i>	Bananarama

Total 1: _____ Total 2: _____

OSSAA 2024-2025
AREA GAME 2
QUARTER 2
LIGHTNING ROUND

Pop Culture: 2024 Emmy Winners

Directions: Given the category, name the winner

- | | |
|--|----------------------------------|
| Outstanding drama series | <i>Shogun</i> |
| Outstanding supporting actor in a comedy series | <i>Ebon <u>Moss-Bachrach</u></i> |
| Outstanding talk series | <i>The Daily Show</i> |
| Outstanding limited or anthology series | <i>Baby Reindeer</i> |
| Outstanding writing for a variety special | <i>Alex <u>Edelman</u></i> |
| Outstanding supporting actress in a limited or anthology series or movie | <i>Jessica <u>Gunning</u></i> |
| Outstanding lead actress in a comedy series | <i>Jean <u>Smart</u></i> |
| Outstanding lead actor in a comedy series | <i>Jeremy Allen <u>White</u></i> |
| Outstanding comedy series | <i>Hacks</i> |
| Outstanding lead actor in a drama series | <i>Hiroyuki <u>Sanada</u></i> |
| Extras: | |
| Outstanding supporting actress in a drama series | <i>Elizabeth <u>Debicki</u></i> |
| Outstanding reality competition program | <i>The Traitors</i> |

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 2
QUARTER 2
LIGHTNING ROUND**

Pop Culture: 2014 Movies

Directions: Given clue, name the movie

Astronauts search for a new planet for humans *Interstellar*

A drumming prodigy is berated by his instructor *Whiplash*

A man takes revenge after men kill his dog and take his car *John Wick*

A soldier repeats the same day to fight aliens *Edge of Tomorrow*

A con man becomes a crime scene photographer *Nightcrawler*

A single mother and her son deal with a demonic presence from a children's book *The Babadook*

Steve faces HYDRA and an enemy from his past *Captain America: The Winter Soldier*

The backstory of the villain from Sleeping Beauty *Maleficent*

A genius boy teams up with a robot and a team of tech based superheroes *Big Hero 6*

.Teens with cancer fall in love *The Fault in Our Stars*

Extras:

.A construction worker becomes special by building things out of bricks *The LEGO Movie*

.An actor who played a superhero puts on a play to revitalize his career *Birdman*

**OSSAA 2024-2025
AREA GAME 2
QUARTER 3
TOSS-UP QUESTIONS**

21. This novel tells the story of Harry "Rabbit" Angstrom, a disillusioned former high school basketball star in 1950s Pennsylvania, who impulsively abandons his wife, Janice, and their child in search of freedom and meaning. What is this 1960 novel, the first in a celebrated series by John Updike?

Answer: *Rabbit, Run*

22. This statesman and retired four-star general served as the first African American Secretary of State from 2001 to 2005. A key figure in U.S. foreign policy during the Gulf War and the early years of the War on Terror, he also chaired the Joint Chiefs of Staff. Who is this influential American leader?

Answer: Colin Powell

23. This 2024 sequel is an adaptation of the second half of an epic sci-fi novel by Frank Herbert. What is this film, directed by Denis Villeneuve, that sees Paul Atreides rise to power as the galaxy devolves into a great war?

Answer: *Dune: Part Two*

24. As part of India's ambitious renewable energy plan in September, 2024, massive wind turbines are being built to provide clean energy. However, local herders in Jaisalmer are raising concerns that the construction of these turbines is impacting what vital resource for their livestock?

Answer: Water Sources (accept any variation regarding safe water)

25. This musical form, prominent in the Baroque period, is characterized by the systematic development of a main theme called the subject. Typically written for multiple voices or instruments, it features techniques like imitation and counterpoint, often leading to complex interwoven textures. What is this form, exemplified by J. S. Bach's works?

Answer: Fugue

**OSSAA 2024-2025
AREA GAME 2
QUARTER 3
TOSS-UP QUESTIONS**

26. This phenomenon occurs in certain materials at very low temperatures, where they exhibit zero electrical resistance and expel magnetic fields. It allows for highly efficient electricity transmission and powerful electromagnets. Discovered in 1911, what is this quantum mechanical state of matter?

Answer: Superconductivity

27. **Math Computation:** What is the determinant of the matrix which has elements 5 and 7 top row left to right and elements -13 and 14 bottom row left to right?

Answer: 161

28. This prehistoric monument in England, believed to have been constructed between 3000 and 2000 BCE consists of a ring of standing stones, each weighing several tons, set within earthworks. What is this iconic Neolithic structure?

Answer: Stonehenge

29. **Math Computation:** Two complementary angles have measures of $(x + 6)$ and $(2x - 12)$ degrees. What are the measures of the 2 angles in degrees?

Answer: 38, 52

30. This long bone is located in the lower leg, forming part of the knee joint at its upper end and the ankle joint at its lower end. Commonly referred to as the shinbone, it is the second-largest bone in the human body and supports much of the body's weight. What is this bone?

Answer: Tibia

31. **Math Computation:** Convert the base 8 number 127 [read: one two seven] into a base 10 number.

Answer: 87

**OSSAA 2024-2025
AREA GAME 2
QUARTER 3
TOSS-UP QUESTIONS**

32. This phase in a star's life occurs when it exhausts hydrogen in its core and begins fusing hydrogen in a shell around the core, causing it to expand and cool. Such stars are characterized by their large size and reddish hue. What is this stage in stellar evolution?

Answer: Red Giant

33. This young adult novel follows Remy, a pragmatic teenager skeptical about love due to her mother's string of failed marriages. Her worldview is challenged when she meets Dexter, an impulsive musician. What is this 2002 novel by Sarah Dessen?

Answer: *This Lullaby*

34. This 1961 event involved a group of exiles trained and supported by the U.S. in an attempt to overthrow Fidel Castro's communist regime. Taking place near a coastal area in Cuba, the operation faced strong resistance and ultimately failed. What is this significant Cold War conflict?

Answer: Bay of Pigs Invasion

35. This 19th-century French author was one of the most prolific writers of his time, producing historical novels, plays, and travel memoirs. He was the son of a French general of Haitian descent and gained widespread fame for works like *The Three Musketeers* and *The Count of Monte Cristo*. Who is this celebrated author?

Answer: Alexandre Dumas

36. This vocal range is the highest naturally occurring male voice type, typically spanning from the C one octave below middle C to the A above middle C, though it can extend higher in trained singers. Known for its bright and powerful sound, it is often featured in opera and choral music. What is this male voice type called?

Answer: Tenor

**OSSAA 2024-2025
AREA GAME 2
QUARTER 3
TOSS-UP QUESTIONS**

37. This accent mark is placed over vowels in some words borrowed from other languages, like in the word "naïve." What is this mark that indicates a separate vowel sound, rather than a diphthong?

Answer: Diaeresis (Accept: Umlaut)

38. This Revolutionary War veteran led an armed uprising in 1786–1787 to protest economic hardships and unfair taxation policies targeting farmers. The rebellion, based in western Massachusetts, exposed flaws in the Articles of Confederation and pushed for a stronger central government. Who was the leader of this uprising?

Answer: Daniel Shays

39. This hormone, produced by the pancreas, regulates blood glucose levels by facilitating the uptake of glucose into cells for energy or storage. It plays a critical role in carbohydrate metabolism, and its deficiency or resistance leads to conditions such as diabetes. What is this essential peptide hormone?

Answer: Insulin

40. **Math Computation:** What is the sample variance in a normally distributed range of data, if the sample standard deviation is 35?

Answer: 1225

Moderator (Check score with chief judge and scorekeeper.)
The score at the end of the third quarter is:
(school name) _____ has _____ points
(school name) _____ has _____ points
Coaches you may approach your team for 30 seconds to assist in any questions.
This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge (Restate the score if they have changed because of protests.)

4th Quarter – Sixty Second Instructions

Moderator The fourth quarter of sixty second questions is about to begin. Everyone please be seated.
The categories for the 4th quarter are: (Brief description)
1. SOCIAL STUDIES – CURRENT WORLD LEADERS
2. SCIENCE – ASTROLOGY SIGNS AND ANIMALS
3. SOCIAL STUDIES – HISTORICAL COMMANDERS
Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.
Because (school name) chose first in the 2nd quarter, (school name) will have the first choice this quarter.

You will have 10 seconds to choose your category.
(Active team) may move to a position behind the captain. (Other team) put down your pencils.
Captain, all answers will come from you unless you defer to another student.

Moderator (School name) You will have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your selection.

The selections are:

- 1.
- 2.

Moderator (Check the score with the chief judge and score keeper) The score at the end of the game is:
(School name) _____ has _____ points
(School name) _____ has _____ points

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charges time out.

(Restate the score if it has changed)

(If the game is tied, sudden death questions will be asked.)

Because the game is tied, sudden death toss-up questions will be asked. Would either team like to make substitutions? Again, this is not a time for coaches to confer with their team. (Pause for substitutions.)

Moderator This concludes the game. Congratulations to both teams. Please check your bracket and move to the next round as quickly as possible.

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 2
QUARTER 4
LIGHTNING ROUND**

Social Studies: Current World Leaders

Directions: Given the rank and country, name the current leader.

Prime Minister of France	Gabriel <u>Attal</u>
President of China	Xi <u>Jinping</u>
Prime Minister of Singapore	Lawrence <u>Wong</u>
President of Nigeria	Bola Ahmed <u>Tinubu</u>
Prime Minister of Sweden	Ulf <u>Kristersson</u>
Prime Minister of Australia	Anthony <u>Albanese</u>
Prime Minister of Italy	Giorgia <u>Meloni</u>
Prime Minister of Lebanon	Najib <u>Mikati</u>
Prime Minister of Greece	Kyriakos <u>Mitsotakis</u>
President of Kenya	William <u>Ruto</u>

Extras:

Prime Minister of Spain	Pedro <u>Sánchez</u>
President of Brazil	Luiz Inácio Lula <u>da Silva</u> (Accept: Lula on its own)

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 2
QUARTER 4
LIGHTNING ROUND**

Science: Astrology Signs and Animals

Directions: Given the animal, name the astrology sign.

Ram	Aries
Bull	Taurus
Twins	Gemini
Crab	Cancer
Lion	Leo
Maiden (Virgin)	Virgo
Scales	Libra
Scorpion	Scorpio
Centaur (Archer)	Sagittarius
.Goat	Capricorn
Extras:	
.Water Bearer	Aquarius
.Fish	Pisces

OSSAA 2024-2025
AREA GAME 2
QUARTER 4
LIGHTNING ROUND

Social Studies: Historical Commanders

Directions: Given the first letter of the last name and description, name the military leader.

- | | |
|---|-----------------------------|
| C; commanded the Flying Tigers in World War II | Claire <u>Chennault</u> |
| M; commanded the British army at Alamein | Bernard <u>Montgomery</u> |
| N; commander-in-chief of the U.S. Pacific Fleet in World War II | Chester <u>Nimitz</u> |
| S; commander of the U.S. Fleet in the Battle of Midway | Raymond <u>Spruance</u> |
| D; destroyed the Spanish fleet at Manila in 1898 | George <u>Dewey</u> |
| K; led British forces during the Boer War | Horatio H. <u>Kitchener</u> |
| W; captured Quebec from the French in 1759 | James <u>Wolfe</u> |
| K; commanded all Russian forces at Borodino in 1812 | Mikhail <u>Kutuzov</u> |
| .H; commanded the BEF in France from 1915 to 1918 | Douglas <u>Haig</u> |
| .M; commanded the Union army at Gettysburg in 1863 | George G. <u>Meade</u> |
| Extras: | |
| .F; captured New Orleans in 1862 | David <u>Farragut</u> |
| .A; commanded U.S. forces in Vietnam, 1968-72 | Creighton <u>Abrams</u> |

**OSSAA 2024-2025
AREA GAME 2****Extra Questions**

E1. This unethical activity violates securities laws and undermines market integrity by providing an unfair advantage. It involves the illegal practice of trading stocks or other securities based on material, non-public information about a company. What is this practice called?

Answer: Insider Trading

E2. This geological process involves the reduction of pore space in sediments due to the weight of overlying materials. It occurs during the early stages of sedimentary rock formation, as grains are pressed closer together, expelling water and air. What is this process that contributes to lithification?

Answer: Compaction

E3. This animation technique involves photographing objects or figures in small increments of movement, creating the illusion of motion when played back as a sequence. Often used with clay figures or puppets, it has been featured in films like *The Nightmare Before Christmas* and *Coraline*. What is this meticulous filmmaking method?

Answer: Stop Motion

E4. This American-French actor made his film debut in Christopher Nolan's *Interstellar*. He has risen to prominence in both indie films and blockbusters in the late 2010s and early 2020s. Who is this actor, the star of films like *Call Me By Your Name*, *Wonka*, and *Dune*?

Answer: Timothee Chalamet

E5. **Math Computation:** Find the inverse function of the equation: $y = 4x - 7$.

Answer: $y = (x + 7)/4$

E6. This character is a teacher at a conservative girls' school in 1930s Edinburgh, known for her unconventional methods, charisma, and strong influence on her students. Her ideals and favoritism lead to conflicts that ultimately shape her downfall. What is this iconic character from the novel by Muriel Spark?

Answer: Miss Jean Brodie

**OSSAA 2024-2025
AREA GAME 2**

E7. These diverse, mostly unicellular eukaryotic organisms can be plant-like, animal-like, or fungus-like in their characteristics. Found in moist environments, they include examples like amoebas, paramecia, and algae. What is this group of organisms, classified as neither plants, animals, nor fungi, but vital to many ecosystems?

Answer: Protists (Accept: Protista)

E8. **Math Computation:** A transversal cuts across two parallel lines. If the measure of one interior angle is 36.7 degrees, what is the measure, in degrees, of a consecutive interior angle?

Answer: 143.3 degrees

E9. This novel follows Bathsheba Everdene, an independent and headstrong woman managing her own farm, as she navigates relationships with three very different suitors: the loyal Gabriel Oak, the wealthy William Boldwood, and the dashing Sergeant Troy. Set in rural 19th-century England, what is this classic work by Thomas Hardy?

Answer: *Far from the Madding Crowd*

E10. This Enlightenment thinker, better known by his pen name, was a prolific writer, philosopher, and advocate for freedom of speech, religion, and separation of church and state. His works include *Candide*, a satirical critique of optimism and organized religion. Who is this influential French figure commonly associated with the name Voltaire?

Answer: Francois-Marie Arouet

2024-2025

**OSSAA
AREA
CHAMPIONSHIP**

High School

GAME 3

(BEGINNING OF GAME)

Welcome to the Oklahoma Secondary School Activities Association Academic Bowl. You have previously been instructed regarding the rules. Please turn off all cell phones, tablets, or any device that can receive or send messages. Coaches, team members, and guests are to sit behind their team. Coaches, your protests need to be at the allowed times.

- Introduce yourself and the chief judge.
- **Give your four count.** – Do this for every match (Game Procedures A – 11)
- Have the chief judge check the buzzers.

Note (do not read):

Official closest to scorekeeper: Make sure that scorekeeper has **full names** of students and check after first few questions that they are fully shading in correct answers, and marking correct answers only.

Official closest to timekeeper: Make sure the timekeeper is starting the clock and clearing for the first few questions.

**OSSAA 2024-2025
AREA GAME 3**

**QUARTER 1
TOSS-UP QUESTIONS**

1. This term refers to the periodic movement of organisms, often over long distances, typically for purposes such as breeding, feeding, or environmental adaptation. Common examples include birds flying south for the winter or whales traveling to warmer waters to give birth. What is this ecological process crucial for species survival?

Answer: Migration

2. This English indie rock band released their debut album "Whatever People Say I Am, That's What I'm Not" in 2006, which became the fastest-selling debut album in UK chart history. What is this band, fronted by Alex Turner, that has hits like *Do I Wanna Know?* and *R U Mine*?

Answer: Arctic Monkeys

3. This novel follows Janie Crawford, an African American woman in the early 20th-century South, as she seeks love, independence, and self-discovery through three marriages and personal trials. Set against a backdrop of rural Florida and influenced by African American folklore, what is this seminal work by Zora Neale Hurston?

Answer: *Their Eyes Were Watching God*

4. **Science computation:** By what factor does the kinetic energy of a ball change if the speed of the ball is quadrupled?

Answer: 16 times (or 16 to 1)

5. This American actress won her second Academy Award for Best Actress at the 2024 Oscars for her performance in *Poor Things*. Her first win was in 2017 for *La La Land*. Who is this actress who got her start in the film *Superbad* before becoming an established lead in films like *Zombieland*, *The Amazing Spider-Man*, and *Cruella*?

Answer: Emma Stone

**OSSAA 2024-2025
AREA GAME 3
QUARTER 1
TOSS-UP QUESTIONS**

6. This statistician and pioneer in survey sampling transformed public opinion polling in the 20th century. He founded the American Institute of Public Opinion in 1935 and is known for accurately predicting Franklin D. Roosevelt's 1936 presidential victory using scientific sampling methods. Who is this influential figure in the field of polling?

Answer: George Gallup

7. **Math Computation:** Find all solutions for x in the following equation: $|3x - 4| = 17$ [the absolute value of the quantity 3x minus 4 equals 17].

Answer: (x=) 7, -13/3 [must have both]

8. Hundreds of this device was used to carry out a bombing in Lebanon that largely targeted Hezbollah members on September 17th, 2024. What is this device that can receive messages that was largely used in the 1980s and 1990s?

Answer: Pager

9. **Science computation:** Two answers required. Describe the number of significant figures in both of the following numbers: 7300 and 0.008

Answer: 2 and 1

10. This novel explores the psychological torment of Rodion Raskolnikov, a former student in St. Petersburg who murders a pawnbroker, believing it justified for the greater good. As guilt consumes him, he faces moral dilemmas and seeks redemption. What is this 1866 masterpiece by Fyodor Dostoevsky?

Answer: *Crime and Punishment*

11. More commonly known as a spotlight, this specialized stage lighting instrument, typically mounted on a swivel stand, produces a strong, focused beam of light to track a performer's movement and allows the operator to adjust the direction, size, and intensity of the light during a performance.

Answer: Follow Spot

**OSSAA 2024-2025
AREA GAME 3
QUARTER 1
TOSS-UP QUESTIONS**

12. This tragedy follows an aging monarch who divides his kingdom among his three daughters, only to face betrayal, madness, and ruin. Familial conflict unfolds as the king's actions lead to devastating consequences. What is this Shakespearean play featuring characters like Cordelia, Goneril, and Regan?

Answer: King Lear

13. These geological features record the activities of ancient organisms rather than their physical remains. Examples include footprints, burrows, and feeding marks, providing insight into behavior and interactions with the environment. Found in sedimentary rocks, what are these fossils that reveal the life habits of past organisms?

Answer: Trace Fossils

14. This ancient Roman festival was held annually in mid-February and involved rituals meant to purify the city and promote fertility. It featured the sacrifice of goats and dogs, followed by participants running through the streets striking bystanders with strips of goat hide. Name this festival, which historians link to the origins of Valentine's Day.

Answer: Lupercalia

15. This nonmetallic element is essential for life and found in amino acids, vitamins, and proteins. Known for its bright yellow crystals, it is used in producing fertilizers and gunpowder. What is this element with the atomic number 16 and the symbol S?

Answer: Sulfur

16. This mischievous and adventurous rabbit is known for disobeying his mother and sneaking into Mr. McGregor's garden, where he narrowly escapes danger. Recognizable by his blue jacket and shoes, he remains a beloved figure in children's literature. Who is this iconic character created by Beatrix Potter?

Answer: Peter Rabbit

**OSSAA 2024-2025
AREA GAME 3
QUARTER 1
TOSS-UP QUESTIONS**

17. **Math Computation:** What is the sample standard deviation among the data points: 2, 3, 5, 7, 8? Remember, the standard deviation squared is equal to the summation of the square of the difference between each term and the mean, divided by one less than the number of terms. Leave your answer as a reduced radical.

Answer: $\sqrt{26/2}$ [radical (square root) 26 over 2] (or $1/2$ radical 26)

18. This 19th-century U.S. Army officer is infamous for leading the 1864 Sand Creek Massacre, in which hundreds of Cheyenne and Arapaho people, including women and children, were killed in Colorado Territory. Initially celebrated, his actions were later widely condemned. Who is this controversial figure in American history?

Answer: John Chivington

19. This genus of parasitic fungi infects insects and arthropods, taking over their bodies to produce spores that spread the infection. Known for its dramatic life cycle, it has inspired studies in ecology and even popular culture. What is this fascinating group of fungi, often found in tropical forests?

Answer: Cordyceps

20. This capital city in northern Europe is known for its historic buildings and vibrant cultural scene, and its notable landmarks include the Royal Palace, the Vasa Museum, and the old town of Gamla Stan. What is this capital city of Sweden that is built on 14 islands connected by over 50 bridges?

Answer: Stockholm

Moderator: (Check score with chief judge and scorekeeper.)

The score at the end of the first quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge: (Restate the score if they have changed because of protests.)

(In case of a tie after the first quarter) Since the score is tied, we will continue with additional toss-up questions until one team scores. (Restate the score if necessary)

2nd Quarter – Sixty Second Instructions

Moderator **The second quarter of sixty second questions is about to begin. Everyone please be seated.**

The categories for the 2nd quarter are: (Brief description)

- 1. SOCIAL STUDIES – STATE NICKNAMES**
- 2. LITERATURE – NPR BEST TEEN NOVELS**
- 3. FINE ARTS – ARCHITECTS**

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) is ahead at this time, they will have the choice to play or defer until the 4th quarter.

- You will have 10 seconds to make your decision. (School name) do you choose to play or defer?**
- (Address playing team) You will have 10 seconds to choose your category (re-read the above categories)**
- (If the 10 second buzzer goes off, the moderator will ask for an immediate response.)**
- Since (school name) is playing first, they may move to a position behind their captain. (Other team) will put down their pencils until their time to play. Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your choice.**

The selections are:

- 1.**
- 2.**

Moderator (Check the score with the chief judge and score keeper.)

The score at the end of the first half is:

(School name) _____ has _____ points

(School name) _____ has _____ points.

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charged time out. (Pause briefly for protests.)

This concludes the first half of play. We will pause for substitutions

Substituting team members, please check in with the scorekeeper. WE WILL NOW BEGIN 3RD QUARTER TOSS-UP QUESTIONS.

**OSSAA 2024-2025
AREA GAME 3
QUARTER 2
LIGHTNING ROUND**

Social Studies: State Nicknames

Directions: Given the nickname, name the U.S. state.

Lone Star State	Texas
Empire State	New York
Sunshine State	Florida
Golden State	California
Peach State	Georgia
Keystone State	Pennsylvania
Bluegrass State	Kentucky
Land of Enchantment	New Mexico
Show-Me State	Missouri
Evergreen State	Washington

Extras:

Mount Rushmore State	South Dakota
Wolverine State	Michigan

OSSAA 2024-2025
AREA GAME 3
QUARTER 2
LIGHTNING ROUND

Literature: NPR Best Teen Novels

Directions: Given the title of one of NPR's Top 100 best teen novels, name the author.

<i>Looking for Alaska</i>	John <u>Green</u>
<i>The Book Thief</i>	Markus <u>Zusak</u>
<i>The Hitchhiker's Guide to the Galaxy</i>	Douglas <u>Adams</u>
<i>Anne of Green Gables</i>	L.M. <u>Montgomery</u>
<i>The Princess Bride</i>	William <u>Goldman</u>
<i>The Perks of Being a Wallflower</i>	Stephen <u>Chbosky</u>
<i>Lord of the Flies</i>	William <u>Golding</u>
<i>Thirteen Reasons Why</i>	Jay <u>Asher</u>
<i>The Curious Incident of the Dog in the Night-Time</i>	Mark <u>Haddon</u>
<i>.Speak</i>	Laurie Halse <u>Anderson</u>
Extras:	
<i>.Tuck Everlasting</i>	Natalie <u>Babbitt</u>
<i>.The Sisterhood of the Traveling Pants</i>	Ann <u>Brashares</u>

OSSAA 2024-2025
AREA GAME 3
QUARTER 2
LIGHTNING ROUND

Fine Arts: Architects

Directions: Given the first letter of the last name of an architect followed by a description, name the architect described.

- W; his design for London after the Great Fire was never built Christopher Wren
- B; designed the Church of Santa Maria delle Grazie in Milan Donato Bramante
- B; the 1546 Chief Architect of St. Peter's in Rome Michelangelo Buonarroti
- J; he began the Renaissance and Georgian periods in English architecture Inigo Jones
- F; developed the revolutionary geodesic dome Richard B. Fuller
- L; designed St. John's Church in Washington D.C. Benjamin H. Latrobe
- P; a pioneer of modern architecture, designed the Villa Savoye Le Corbusier
- R; an influential minimalist architect, known for Farnsworth House Ludwig Mies van der Rohe
- G; designed the Pan Am Building in New York City Walter Gropius
- .B; designed the octagonal dome of the cathedral in Florence Filippo Brunelleschi
- Extras:**
- .W; one of his significant works is the Imperial Hotel in Tokyo Frank Lloyd Wright
- .B; the dominant figure of the Italian Baroque Period Giovanni Bernini

**OSSAA 2024-2025
AREA GAME 3
QUARTER 3
TOSS-UP QUESTIONS**

21. This British ocean liner, launched in 1934, was one of the most luxurious ships of its time, serving as a transatlantic passenger vessel and later as a troopship during World War II. Retired in 1967, it is now a floating hotel and museum in California. What is this iconic ship?

Answer: RMS Queen Mary

22. This play, written in 1954, follows the antics of a meddling matchmaker, Dolly Gallagher Levi, as she orchestrates romantic connections while pursuing her own love interest with a wealthy merchant. It later inspired the beloved musical *Hello, Dolly!* What is this original work by Thornton Wilder?

Answer: *The Matchmaker*

23. This severe weather event is characterized by strong sustained winds of at least 35 mph, combined with heavy snowfall and low visibility lasting for at least three hours. Common in colder climates, it can disrupt transportation, cause power outages, and create life-threatening conditions. Beginning with "B" what is this type of winter storm?

Answer: Blizzard

24. This U.S. naval base, located in southeastern Cuba, has been leased since 1903 and serves as a strategic military outpost. It is perhaps best known today for housing a controversial detention facility established in 2002 to hold terror suspects. What is the name of this location?

Answer: Guantanamo Bay

25. This term describes the rare occurrence of a second full moon within a single calendar month or the third full moon in a season with four. It inspired a popular idiom referring to something that happens infrequently and also a limited time flavor of a Chattanooga Bakery snack. What is this celestial event called?

Answer: Blue Moon

**OSSAA 2024-2025
AREA GAME 3
QUARTER 3
TOSS-UP QUESTIONS**

26. **Math Computation:** What is the median in the following set of data: 87, 44, 12, 19, 77, 55, 34, and 102?

Answer: 49.5

27. This sculptural technique, developed in ancient Greece, is used to depict a figure standing with most of its weight on one foot, causing the shoulders and arms to twist off-axis from the hips and legs. This creates a sense of dynamic balance. Which technique is exemplified in Michelangelo's sculpture of "David"?

Answer: Contrapposto

28. This 19th-century physicist, known for his work in kinetic theory and color photography, developed foundational equations of electromagnetism, unifying electric and magnetic fields into a single theory. Who is this scientist whose work on electromagnetism paved the way for modern physics, including Einstein's theory of relativity?

Answer: James Clerk Maxwell

29. **Math Computation:** Solve the following equation to find G: $\sqrt{5G + 4} = 8$ [read: the square root of the quantity 5G plus 4 equals 8].

Answer: (G=) 12

30. On August 22, 2024, a labor dispute halted operations at one of Canada's major freight railroads, significantly affecting industries in both Canada and the U.S. Which company, along with Canadian Pacific Kansas City Southern, locked out union workers?

Answer: Canadian National

31. **Math Computation:** What is the median in the following set of data: 95, 78, 85, 45, 58, and 82?

Answer: 80

**OSSAA 2024-2025
AREA GAME 3
QUARTER 3
TOSS-UP QUESTIONS**

32. These membrane-bound organelles are found in eukaryotic cells and contain enzymes that break down waste materials, cellular debris, and macromolecules. Often referred to as the cell's "recycling center," they play a key role in maintaining cellular health by digesting and recycling materials. What are these organelles?

Answer: Lysosomes

33. This progressive metal band, formed in 1990, is known for its complex compositions, philosophical lyrics, and elaborate visual art. Albums like *Ænima*, *Lateralus*, and *Fear Inoculum* have earned critical acclaim and a dedicated fan base. What is this band led by vocalist Maynard James Keenan?

Answer: Tool

34. This play, set in a dilapidated hotel on the Mexican coast, follows Reverend T. Lawrence Shannon, working as a tour guide, as he confronts his personal crises. The story intertwines his struggles with those of the hotel's owner, Maxine Faulk, and a traveling artist, Hannah Jelkes. Premiering in 1961, what is this work by Tennessee Williams?

Answer: *The Night of the Iguana*

35. This brass instrument is known for its wide range, mellow tone, and coiled tubing with a flared bell. Played using a combination of valves and hand-stopping techniques, it is a staple in orchestras, concert bands, and chamber ensembles. Originally used for hunting, what is this instrument, often used for both heroic and lyrical passages?

Answer: French Horn

36. **Math Computation:** What is the equation of the line through the points (7, 3) [read: 7 comma 3] and (13, -3) [read: 13 comma negative 3]? Put your answer in point-slope form.

Answer: $y - 3 = -1(x - 7)$ [read: y minus 3 equals negative 1 times the quantity x minus 7 end quantity]

**OSSAA 2024-2025
AREA GAME 3
QUARTER 3
TOSS-UP QUESTIONS**

37. This novel, part of a beloved series, follows the Ingalls family as they settle on the Kansas prairie, facing challenges like isolation, harsh weather, and encounters with Native Americans. Based on the author's childhood, it offers a glimpse into pioneer life in the 19th century. What is this work by Laura Ingalls Wilder?

Answer: Little House on the Prairie

38. This term refers to a series of violent confrontations in the Kansas Territory between 1854 and 1859, sparked by debates over whether the territory would permit slavery. Pro-slavery and anti-slavery factions clashed, foreshadowing the broader conflict of the Civil War. What is this historical period of unrest known as?

Answer: Bleeding Kansas (Accept: Bloody Kansas)

39. This 17th-century Puritan minister emigrated from England to the Massachusetts Bay Colony in 1635, becoming a key figure in early American religious life. Known for his role in drafting the Cambridge Platform, he was the patriarch of a prominent New England family that included Increase and Cotton Mather. Who was this clergyman?

Answer: Richard Mather

40. This ocean covers more than 63 million square miles and is bordered by Asia, Australia, the Americas, and Antarctica. What is this ocean that is home to the Mariana Trench, the deepest part of the world's oceans, includes major currents, and is the largest ocean in the world?

Answer: The Pacific Ocean

Moderator (Check score with chief judge and scorekeeper.)
The score at the end of the third quarter is:
(school name) _____ has _____ points
(school name) _____ has _____ points
**Coaches you may approach your team for 30 seconds to assist in any questions.
This is not a charged time out. (Pause briefly for protests.) Are there any questions?**

Chief Judge (Restate the score if they have changed because of protests.)

4th Quarter – Sixty Second Instructions

Moderator **The fourth quarter of sixty second questions is about to begin. Everyone please be seated.
The categories for the 4th quarter are: (Brief description)**
1. MARTH – TRIGONOMETRY NUMERIC VALUES
2. SCIENCE – SYMBOLS OF ELEMENTS
3. LITERATURE – AMERICAN AUTHORS AND THEIR WORKS
**Teams, you may briefly make substitutions without conferring. (You have 20 seconds
to announce your substitutions). Your 20 seconds begins now.**
**Because (school name) chose first in the 2nd quarter, (school name) will have the first choice this
quarter.**

**You will have 10 seconds to choose your category.
(Active team) may move to a position behind the captain. (Other team) put down your pencils.
Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You will have your choice of the two remaining categories. (Other team) put down
your pencils. (Active school) may move to a position behind your captain. You will have 10
seconds to make your selection.**

The selections are:

- 1.
- 2.

Moderator (Check the score with the chief judge and score keeper) **The score at the end of the game is:**
(School name) _____ has _____ points
(Schaol name) _____ has _____ points

**Are there any questions? Coaches you may approach your team for 30 seconds to assist in any
questions. This is not a charges time out.**

(Restate the score if it has changed)

(If the game is tied, sudden death questions will be asked.)

**Because the game is tied, sudden death toss-up questions will be asked. Would either team like
to make substitutions? Again, this is not a time for coaches to confer with their team. (Pause for
substitutions.)**

Moderator **This concludes the game. Congratulations to both teams. Please check your bracket
and move to the next round as quickly as possible.**

OSSAA 2024-2025
AREA GAME 3
QUARTER 4
LIGHTNING ROUND

Math: Trigonometry Numeric Values

Directions: Each of the following angles are in standard position. You give the value of the trigonometric function requested.

Sine of 180 degrees	0
Cosine of 480 degrees	-21
Sine of -135 degrees	-22
Cosine of -60 degrees	21
Tangent of -45 degrees	-1
Tangent of 300 degrees	$-\sqrt{3}$
Secant of -120 degrees	-2
Cosine of -30 degrees	23
Tangent of 405 degrees	1
Sine of 570 degrees	-21
Extras:	
Cosecant of 90 degrees	1
Tangent of 210 degrees	33

OSSAA 2024-2025
AREA GAME 3
QUARTER 4
LIGHTNING ROUND

Science: Symbols of Elements

Directions: Given the element, name its chemical symbol.

Europium	Eu
Curium	Cm
Lawrencium	Lr
Radon	Rn
Fermium	Fm
Ytterbium	Yb
Vanadium	V
Indium	In
Samarium	Sm
Germanium	Ge
Extras:	
Astatine	At
Tellurium	Te

OSSAA 2024-2025
AREA GAME 3
QUARTER 4
LIGHTNING ROUND

Literature: American Authors and Their Works

Directions: Given the name of a work by an American author, name the author.

The Call of the Wild Jack London

The Blithedale Romance Nathaniel Hawthorne

The Color Purple Alice Walker

The Dark Tower Stephen King

The Chainbearer James Fenimore Cooper

The Egypt Game Zilpha Keatley Snyder

The Exorcist William Peter Blatty

The Gate Thief Orson Scott Card

The Good Earth Pearl Buck

Unwind Neal Shusterman

Extras:

Walk Two Moons Sharon Creech

Twelve Years a Slave Solomon Northup

**OSSAA 2024-2025
AREA GAME 3****Extra Questions**

E1. This novel follows the title character and her unconventional group of friends and family as they navigate love, loss, and identity in a magical-realist version of Los Angeles. Published in 1989, it is the first in the Dangerous Angels series. What is this young adult novel by Francesca Lia Block?

Answer: *Weetzie Bat*

E2. This term refers to a subcritical mass of plutonium used in nuclear testing during the Manhattan Project. It became infamous due to two criticality accidents in 1945 and 1946, which caused lethal radiation exposure to scientists. What is this object, nicknamed for its deadly potential during experiments?

Answer: Demon Core

E3. This 2023 Japanese animated film won Best Animated Feature at the 2024 Academy Awards. The English dub of the film stars Robert Pattinson as one of the titular characters. What is this film about a kid who goes on a strange adventure to find his mother?

Answer: *The Boy and the Heron*

E4. **Math Computation:** Convert the binary number 10110 [read: one zero one one zero] into a base 10 number.

Answer: 22

E5. This celestial object is a giant red star located about 65 light-years from Earth in the Taurus constellation. It is the brightest star in its constellation and represents the eye of the bull in Greek mythology. What is this star, part of the Hyades cluster, and often associated with ancient navigational lore?

Answer: Aldebaran

E6. This 1943 legislation repealed the Chinese Exclusion Act, allowing Chinese immigrants to become U.S. citizens for the first time since 1882. Passed during World War II to strengthen U.S.-China relations, it set a small annual immigration quota. What is this act named after a Washington senator?

Answer: Magnuson Act

**OSSAA 2024-2025
AREA GAME 3**

E7. This apostle, originally a tax collector, is traditionally credited with writing the first Gospel in the New Testament. His account includes the Sermon on the Mount and the Great Commission. Who is this author of a Gospel that begins with a genealogy tracing Jesus' lineage to Abraham?

Answer: Matthew

E8. This German author, a key figure in 20th-century literature, is known for his exploration of the conflict between art and life, the decay of European society, and intellectual struggles. His notable works include *Buddenbrooks*, *The Magic Mountain*, and *Death in Venice*. Who is this 1929 Nobel Prize in Literature laureate?

Answer: Thomas Mann

E9. This 19th-century figure, often romanticized as the "Bandit Queen," was associated with outlaws and criminal activity in the American Old West. Known for her connections to figures like the James and Younger gangs, she was accused of horse theft and other crimes. Who is this infamous woman whose life remains shrouded in legend?

Answer: Belle Starr

E10. **Math Computation:** Find the summation from m equals 1 to m equals 6 of the expression: $m + 5$.

Answer: 51

2024-2025

**OSSAA
AREA
CHAMPIONSHIP**

High School

GAME 4

(BEGINNING OF GAME)

Welcome to the Oklahoma Secondary School Activities Association Academic Bowl. You have previously been instructed regarding the rules. Please turn off all cell phones, tablets, or any device that can receive or send messages. Coaches, team members, and guests are to sit behind their team. Coaches, your protests need to be at the allowed times.

- Introduce yourself and the chief judge.
- **Give your four count.** – Do this for every match (Game Procedures A – 11)
- Have the chief judge check the buzzers.

Note (do not read):

Official closest to scorekeeper: Make sure that scorekeeper has **full names** of students and check after first few questions that they are fully shading in correct answers, and marking correct answers only.

Official closest to timekeeper: Make sure the timekeeper is starting the clock and clearing for the first few questions.

**OSSAA 2024-2025
AREA GAME 4**

**QUARTER 1
TOSS-UP QUESTIONS**

1. This World War II naval hero from Oklahoma was awarded the Medal of Honor posthumously for his heroic actions during the Battle off Samar. Who is this officer, nicknamed Big Chief, who led the destroyer Johnston to sink a Japanese submarine?

Answer: Ernest E. Evans

2. This English novelist, active during the Regency era, is renowned for her sharp wit, intricate characterizations, and commentary on social structures of her time. Her major works, including *Pride and Prejudice*, *Sense and Sensibility*, and *Emma*, remain central to English literature. Who is this celebrated author?

Answer: Jane Austen

3. **Math Computation:** Rewrite the following logarithmic fraction as a single log term: $\frac{\log 100}{\log 4}$ [log 100 over log 4].

Answer: $\log_4(100)$ [[log base 4 of 100]

4. This 1968 film was mistakenly put into the public domain because the original distributor failed to replace the copyright notice when changing the film's name. What is this iconic horror film, directed by George A Romero, that popularized the zombie sub genre and is notable for having one of the first African American leads in a horror movie?

Answer: *Night of the Living Dead*

5. **Math Computation:** Solve the following equation to find m: $4m - 12 = -2m + 16$.

Answer: (m=) $\frac{14}{3}$

**OSSAA 2024-2025
AREA GAME 4
QUARTER 1
TOSS-UP QUESTIONS**

6. A master of the Early Renaissance, this Italian painter is known for his mythological scenes and his role in the development of linear perspective. His famous works include *The Birth of Venus* and *Primavera*, which are celebrated for their grace and beauty. Who is this Renaissance painter?

Answer: Sandro Botticelli

7. This climate phenomenon occurs when warm ocean waters in the central and eastern Pacific disrupt typical weather patterns. Often associated with weakened trade winds, it leads to global effects such as increased rainfall in some regions and drought in others. What is this recurring event that accompanies the Southern Oscillation?

Answer: El Niño

8. This 33rd President of the United States assumed office in 1945 following Franklin D. Roosevelt's death. Known for making the decision to use atomic bombs in World War II, he also initiated the Marshall Plan, NATO, and desegregated the armed forces. Who is this leader associated with the doctrine of containing communism during the Cold War?

Answer: Harry S. Truman

9. This Pulitzer Prize-winning play, part of August Wilson's Pittsburgh Cycle, follows the struggles of Troy Maxson, an African American garbage collector in 1950s Pittsburgh. As he battles personal demons and systemic racism.. First performed in 1985, what is this seminal work by August Wilson?

Answer: Fences

10. This politician was a teacher who later became a congressman and the governor of Minnesota. Who is this Democratic Vice Presidential candidate and was the running mate of Kamala Harris in the 2024 election?

Answer: Tim Walz

**OSSAA 2024-2025
AREA GAME 4
QUARTER 1
TOSS-UP QUESTIONS**

11. This term refers to a word, phrase, or sequence of characters that reads the same forward and backward, ignoring spaces, punctuation, and capitalization. Examples include "madam" and "racecar." What is the term for such symmetrical words or phrases?

Answer: Palindrome

12. This character, the protagonist of Top Gun, got a sequel named after his call sign 36 years after the first film. Who is this character, played by Tom Cruise, who graduates at the top of his class at Top Gun and then comes back as an instructor in the sequel?

Answer: Pete (Maverick) Mitchell

13. This inland sea, bordered by six countries including Ukraine, Turkey, and Russia, connects to the Mediterranean via the Bosphorus and Dardanelles. Known for its anoxic lower layers that preserve shipwrecks, it has been central to trade and cultural exchange for centuries. What is this body of water?

Answer: The Black Sea

14. Researchers in this field might study bird migration patterns, mating behaviors, and interactions with their ecosystems. This branch of zoology involves the examination of bird anatomy, physiology, behavior, ecology, and classification. Identify this scientific discipline.

Answer: Ornithology

15. **Math Computation:** Find the limit as x approaches infinity of the expression $(2x^3 - 5x + 7)/(3x^3 + 4x^2 + 5)$ [the quantity $2x$ cubed minus $5x$ plus 7 end quantity over the quantity $3x$ cubed plus $4x$ squared plus 5 end quantity]

Answer: $\frac{2}{3}$

**OSSAA 2024-2025
AREA GAME 4
QUARTER 1
TOSS-UP QUESTIONS**

16. This chemical process involves the loss of electrons by a molecule, atom, or ion, often accompanied by an increase in oxidation state. It occurs in tandem with reduction reactions, forming redox processes. Examples include rusting of iron and combustion of fuels. What is this reaction essential to many biological and industrial processes?

Answer: Oxidation reaction

17. This ancient Greek philosopher made foundational contributions to many fields, including biology, ethics, politics, and logic. A student of Plato and teacher of Alexander the Great, his works such as *Nicomachean Ethics* and *Politics* continue to influence Western thought. Who is this thinker, often called the "Father of Western Philosophy"?

Answer: Aristotle

18. This 18th-century comedic play follows Louisa, a young woman determined to marry her true love, Don Antonio, rather than the wealthy suitor her father prefers. With the help of her resourceful governess, schemes unfold involving disguises, mistaken identities, and clever deceptions. What is this operatic play by Richard Brinsley Sheridan?

Answer: *The Duenna*

19. This ecological term refers to a large geographic area characterized by distinct climate, soil, plants, and animals. Examples include deserts, tundras, rainforests, and grasslands, each hosting species adapted to their unique environments. What is this classification used to study Earth's diverse ecosystems?

Answer: Biome

20. **Math Computation:** What are the coordinates of the vertex of the parabola with equation: $y = (x - 3)^2 + 7$ [y equals the quantity x minus 3 end quantity squared plus 7]?

Answer: (3,7)

Moderator: (Check score with chief judge and scorekeeper.)

The score at the end of the first quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge: (Restate the score if they have changed because of protests.)

(In case of a tie after the first quarter) Since the score is tied, we will continue with additional toss-up questions until one team scores. (Restate the score if necessary)

2nd Quarter – Sixty Second Instructions

Moderator **The second quarter of sixty second questions is about to begin. Everyone please be seated.**

The categories for the 2nd quarter are: (Brief description)

- 1. POP CULTURE – NBA ARENAS**
- 2. POP CULTURE – BIRTHSTONES AND THEIR MONTHS**
- 3. SOCIAL STUDIES – PRESIDENTIAL NICKNAMES**

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) is ahead at this time, they will have the choice to play or defer until the 4th quarter.

- You will have 10 seconds to make your decision. (School name) do you choose to play or defer?**
- (Address playing team) You will have 10 seconds to choose your category (re-read the above categories)**
- (If the 10 second buzzer goes off, the moderator will ask for an immediate response.)**
- Since (school name) is playing first, they may move to a position behind their captain. (Other team) will put down their pencils until their time to play. Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your choice.**

The selections are:

- 1.**
- 2.**

Moderator (Check the score with the chief judge and score keeper.)

The score at the end of the first half is:

(School name) _____ has _____ points

(School name) _____ has _____ points.

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charged time out. (Pause briefly for protests.)

This concludes the first half of play. We will pause for substitutions

Substituting team members, please check in with the scorekeeper. WE WILL NOW BEGIN 3RD QUARTER TOSS-UP QUESTIONS.

OSSAA 2024-2025
AREA GAME 4
QUARTER 2
LIGHTNING ROUND

Pop Culture: NBA Arenas

Directions: Given the name of an arena, home to an NBA team, name the team.

Crypto.com Arena	Los Angeles (LA) <u>Lakers</u>
Chase Center	Golden State <u>Warriors</u>
Kaseya Center	Miami <u>Heat</u>
TD Garden	Boston <u>Celtics</u>
United Center	Chicago <u>Bulls</u>
Madison Square Garden	New York <u>Knicks</u>
American Airlines Center	Dallas <u>Mavericks</u>
Footprint Center	Phoenix <u>Suns</u>
Wells Fargo Center	Philadelphia <u>76ers</u>
. Fiserv Forum	Milwaukee <u>Bucks</u>
Extras:	
. Ball Arena	Denver <u>Nuggets</u>
. Scotiabank Arena	Toronto <u>Raptors</u>

**OSSAA 2024-2025
AREA GAME 4
QUARTER 2
LIGHTNING ROUND**

Pop Culture: Birthstones and their Months

Directions: Given the gemstone, name the month it represents.

Garnet	January
Amethyst	February
Aquamarine	March
Diamond	April
Emerald	May
Pearl	June
Ruby	July
Peridot	August
Sapphire	September
.Opal	October
Extras:	
. Topaz	November
.Turquoise	December

**OSSAA 2024-2025
AREA GAME 4
QUARTER 2
LIGHTNING ROUND**

Social Studies: Presidential Nicknames

Directions: Given the nickname, name the U.S. president.

The American Cincinnatus	George <u>Washington</u>
The Rail-Splitter	Abraham <u>Lincoln</u>
Old Hickory	Andrew <u>Jackson</u>
The Great Communicator	Ronald <u>Reagan</u>
The Bull Moose	Theodore <u>Roosevelt</u>
Tricky Dick	Richard <u>Nixon</u>
The Sage of Monticello	Thomas <u>Jefferson</u>
Old Kinderhook	Martin <u>Van Buren</u>
The Peanut Farmer	Jimmy <u>Carter</u>
.Ike	Dwight D. <u>Eisenhower</u>
Extras:	
. Silent Cal	Calvin <u>Coolidge</u>
. Old Rough and Ready	Zachary <u>Taylor</u>

**OSSAA 2024-2025
AREA GAME 4
QUARTER 3
TOSS-UP QUESTIONS**

21. This 1986 U.S. legislation aimed to address illegal immigration by strengthening border enforcement, penalizing employers with undocumented workers, and offering amnesty to undocumented immigrants already residing in the country. Signed into law by President Ronald Reagan, what is this act that marked a change in immigration policy?

Answer: Immigration Reform and Control Act (IRCA)

22. This term refers to organisms that obtain nutrients by decomposing organic matter from dead or decaying organisms. Essential to nutrient recycling in ecosystems, they include fungi, certain bacteria, and some plants. What are these decomposers that play a vital role in breaking down organic material?

Answer: Saprophytes

23. This novel, published in 1957, explores the role of government through the story of Dagny Taggart, a railroad executive, and John Galt, a mysterious inventor. Set in a dystopian United States, it depicts the struggles of industrialists against an overreaching state. What is this influential work by Ayn Rand?

Answer: Atlas Shrugged

24. This term refers to regions around an atom's nucleus where electrons are likely to be found. Defined by quantum mechanics, these regions have specific shapes and are key to understanding chemical bonding and electron configurations. What are these fundamental components of atomic structure?

Answer: Atomic Orbitals

25. This American playwright, born in New York City in 1915, wrote plays that explored the American Dream. He was married to Marilyn Monroe from 1956 to 1961. His notable works include *Death of a Salesman*, *The Crucible*, and *A View from the Bridge*. Identify this playwright.

Answer: Arthur Miller

**OSSAA 2024-2025
AREA GAME 4
QUARTER 3
TOSS-UP QUESTIONS**

26. **Math Computation:** Two fair 6-sided dice are rolled. What are the reduced odds that the sum of the two dice will be equal to 8?

Answer: 5 to 31

27. This man opened fire on July 13th, 2024 in Butler, Pennsylvania. Who is this man who attempted to assassinate President-Elect Donald Trump at a rally, leading to the former president being shot in the ear and a firefighter being killed?

Answer: Thomas Matthew Crooks

28. This accent mark is used in French and other languages to indicate a change in pronunciation, as used in the word "fiancé." What is this mark that resembles a small, tilted line above the letter?

Answer: Acute Accent

29. This ancient metalworking technique involves creating a detailed model in wax, coating it in a heat-resistant material to form a mold, and then melting away the wax to pour molten metal into the cavity. Used for making sculptures, jewelry, and artifacts, what is this process known for its precision and artistic versatility?

Answer: Lost-wax casting

30. This environmental phenomenon occurs when sulfur dioxide and nitrogen oxides are released into the atmosphere, mix with water vapor, and fall to the Earth as precipitation with a lower pH. It damages ecosystems, corrodes infrastructure, and harms aquatic life. What is this type of pollution-related precipitation?

Answer: Acid rain

**OSSAA 2024-2025
AREA GAME 4
QUARTER 3
TOSS-UP QUESTIONS**

31. This river flows for approximately 315 miles through eastern New York, originating in the Adirondack Mountains and emptying into the Atlantic Ocean at New York Harbor. It is a vital waterway for trade, transportation, and cultural significance, inspiring works like Irving's *Rip Van Winkle*. What is this major river of the northeastern United States?

Answer: Hudson River

32. **Math Computation:** Six people are running for student council, with 4 different positions available. How many different combinations of officers are possible?

Answer: 15

33. This layer in a body of water is characterized by a rapid change in temperature with depth, separating the warmer surface water from the cooler, deeper water. Common in oceans and large lakes, it plays a crucial role in aquatic ecosystems and circulation patterns. What is this transitional temperature layer called?

Answer: Thermocline

34. This type of sentence contains just one independent clause and no dependent clauses, such as "The cat slept." What is this type of sentence called?

Answer: Simple Sentence

35. **Math Computation:** What is the integral, from 0 to 1, of: $(4x - 5) dx$?

Answer: -3

36. This intergovernmental military alliance was established in 1949 to promote collective defense among member countries in response to external aggression. Originally formed by 12 nations, it has since expanded to include 31 members, with a focus on transatlantic security. What is this organization headquartered in Brussels?

Answer: NATO (North Atlantic Treaty Organization)

**OSSAA 2024-2025
AREA GAME 4
QUARTER 3
TOSS-UP QUESTIONS**

37. This Canadian alternative singer reached mainstream success with the release of her third studio album, *Jagged Little Pill*, which won the 1996 Album of the Year Grammy award. Who is this singer of hits like *All I Really Want*, *You Oughta Know*, and *Ironic*?

Answer: Alanis Morissette

38. This royal residence, located in Saint Petersburg, was the official home of Russian tsars from the 18th century until the Russian Revolution. It was stormed during the October Revolution of 1917, marking a key moment in the Bolshevik takeover. Name this historic palace, now part of the Hermitage Museum.

Answer: The Winter Palace

39. **Math Computation:** Solve the following logarithmic equation for x: $\log_x(1/32) = -5$ [log base x of one thirty-second equals negative 5].

Answer: (x=) 2

40. This Baroque composer, virtuoso violinist, and priest is best known for his vivid concertos, including the widely celebrated *The Four Seasons*. Active primarily in Venice, he composed over 500 concertos, as well as operas and sacred choral works. Who is this influential Italian musician?

Answer: Antonio Vivaldi

Moderator (Check score with chief judge and scorekeeper.)
The score at the end of the third quarter is:
(school name) _____ has _____ points
(school name) _____ has _____ points
**Coaches you may approach your team for 30 seconds to assist in any questions.
This is not a charged time out. (Pause briefly for protests.) Are there any questions?**

Chief Judge (Restate the score if they have changed because of protests.)

4th Quarter – Sixty Second Instructions

Moderator **The fourth quarter of sixty second questions is about to begin. Everyone please be seated.
The categories for the 4th quarter are: (Brief description)**
1. SOCIAL STUDIES – PENINSULAS
2. FINE ARTS – GREEK MYTHOLOGICAL MONSTERS
3. LITERATURE – THREE NAMED AUTHORS
**Teams, you may briefly make substitutions without conferring. (You have 20 seconds
to announce your substitutions). Your 20 seconds begins now.**
**Because (school name) chose first in the 2nd quarter, (school name) will have the first choice this
quarter.**

You will have 10 seconds to choose your category.
**(Active team) may move to a position behind the captain. (Other team) put down your pencils.
Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You will have your choice of the two remaining categories. (Other team) put down
your pencils. (Active school) may move to a position behind your captain. You will have 10
seconds to make your selection.**

The selections are:

- 1.
- 2.

Moderator (Check the score with the chief judge and score keeper) **The score at the end of the game is:**
(School name) _____ has _____ points
(School name) _____ has _____ points

**Are there any questions? Coaches you may approach your team for 30 seconds to assist in any
questions. This is not a charges time out.**
(Restate the score if it has changed)

(If the game is tied, sudden death questions will be asked.)
**Because the game is tied, sudden death toss-up questions will be asked. Would either team like
to make substitutions? Again, this is not a time for coaches to confer with their team. (Pause for
substitutions.)**

Moderator **This concludes the game. Congratulations to both teams. Please check your bracket
and move to the next round as quickly as possible.**

**OSSAA 2024-2025
AREA GAME 4
QUARTER 4
LIGHTNING ROUND**

Social Studies: Peninsulas

Directions: Given a brief description, name each peninsula.

Yalta is located at its southern tip	Crimean
Connected to central Greece by the Isthmus of Megara	Peloponnesian
Separates the Sea of Okhotsk from the Bering Sea	Kamchatka
Separates Bristol Bay from the Pacific	Alaska
Spain and Portugal are located on it	Iberian
Lake Okeechobee is located on it	Florida
Cancun is located on its eastern tip	Yucatan
The Kiel Canal crosses it	Jutland
With Sumatra it forms the Strait of Malacca	Malay
. Separates the Gulf of California from the Pacific	Baja

Extras:

. Separates the Yellow Sea from the Sea of Japan	Korean
. Separates the Gulf of Carpentaria from the Coral Sea	Cape York

**OSSAA 2024-2025
AREA GAME 4
QUARTER 4
LIGHTNING ROUND**

Fine Arts: Greek Mythological Monsters

Directions: Identify the Greek mythological monster from the description.

A winged horse born from Medusa's blood.	Pegasus
A giant serpent that guarded the Oracle of Delphi.	Python
A dragon with one hundred heads, slain by Zeus.	Typhon
A winged horse-eating monster, defeated by Bellerophon.	Chrysaor
A snake-haired giantess turned into a monster by Athena.	Scylla
The hundred-handed giants who helped the Olympian gods.	Hecatoncheires
A lion with impenetrable skin, defeated by Heracles.	Nemean Lion
A creature with a lion's body and a scorpion's tail.	Manticore
A winged horse said to carry Zeus's thunderbolts.	Arion
A monstrous boar sent by Artemis to ravage Calydon.	Calydonian Boar

Extras:

A creature with the body of a lion and wings of an eagle.	Griffin
A giant bronze man who guarded Crete.	Talos

OSSAA 2024-2025
AREA GAME 4
QUARTER 4
LIGHTNING ROUND

Literature: Three-Name Authors

Directions: Given the initials of an author who typically goes by their full name and a work by said author. Provide the author's first, middle, and last name.

EAP (<i>The Raven</i>)	<u>Edgar Allan Poe</u>
WMT (<i>Vanity Fair</i>)	<u>William Makepeace Thackeray</u>
HBS (<i>Uncle Tom's Cabin</i>)	<u>Harriet Beecher Stowe</u>
EMR (<i>All Quiet on the Western Front</i>)	<u>Erich Maria Remarque</u>
CPR (<i>State of Exile</i>)	<u>Cristina Peri Rossi</u>
OWH (<i>Old Ironsides</i>)	<u>Oliver Wendell Holmes</u>
MKR (<i>The Yearling</i>)	<u>Marjorie Kinnan Rawlings</u>
JRL (<i>The Vision of Sir Launfal</i>)	<u>James Russell Lowell</u>
ZKS (<i>The Egypt Game</i>)	<u>Zilpha Keatley Snyder</u>
JPS (<i>Being and Nothingness</i>)	<u>Jean-Paul Sartre</u>
Extras:	
LHA (<i>Speak</i>)	<u>Laurie Halse Anderson</u>
OSC (<i>Ender's Game</i>)	<u>Orson Scott Card</u>

**OSSAA 2024-2025
AREA GAME 4****Extra Questions**

E1. This conflict, fought from 1811 to 1813, was led by a Shawnee chief who sought to unite Native American tribes against U.S. expansion into their lands. Key events include the Battle of Tippecanoe and the chief's alliance with the British during the War of 1812. What is this struggle named for its prominent leader?

Answer: Tecumseh's War (Accept: Tecumseh's Rebellion)

E2. **Math Computation:** Multiply the following fractions: $1 \frac{1}{2}$ times $4 \frac{1}{3}$ [read: 1 and one half times 4 and one third] and give your answer as a mixed number in reduced form.

Answer: $6 \frac{1}{2}$

E3. This retired NASCAR driver, son of a legendary racer, was known for his success on the track and his popularity among fans. Who is this driver who won the Daytona 500 twice and was named the Most Popular Driver Award 15 times in a row?

Answer: Dale Earnhardt Jr.

E4. This 19th-century physicist and engineer is renowned for his work in thermodynamics, including the development of the absolute temperature scale that bears his name. He contributed to the transatlantic telegraph and advancements in electricity and magnetism. Who is this physicist?

Answer: Lord Kelvin

E5. **Math Computation:** What is the equation of the line with a slope of 4 through the point (3, 8) [read: 1 comma 2] in slope-intercept form?

Answer: $y = 4x - 4$

E6. This economic term refers to the gradual reduction in the value of an asset over time due to wear and tear, obsolescence, or usage. Commonly applied to fixed assets like machinery or buildings, it is used in accounting to allocate the asset's cost over its useful life. What is this concept?

Answer: Depreciation

**OSSAA 2024-2025
AREA GAME 4**

E7. Name the term in theatre that refers to the movable items or objects used on stage by actors during a performance, which help establish the setting and enhance the realism of the production.

Answer: Props

E8. This novel follows Georges Duroy, an ambitious journalist in 19th-century Paris, as he rises to wealth and power through manipulation and seduction. What is this 1885 work by French author Guy de Maupassant?

Answer: Bel-Ami

E9. These electrons are located in the outermost shell of an atom and play a critical role in chemical bonding and reactions. Their arrangement determines an element's reactivity and ability to form molecules. What are these electrons responsible for interactions such as covalent and ionic bonds?

Answer: Valence Electrons

E10. This British author, often called the "Queen of Crime," is renowned for her detective novels and short stories featuring iconic characters like Hercule Poirot and Miss Marple. Her works, including *Murder on the Orient Express* and *And Then There Were None*, have sold billions of copies worldwide. Who is this master of mystery fiction?

Answer: Agatha Christie

2024-2025

**OSSAA
AREA
CHAMPIONSHIP**

High School

GAME 5

(BEGINNING OF GAME)

Welcome to the Oklahoma Secondary School Activities Association Academic Bowl. You have previously been instructed regarding the rules. Please turn off all cell phones, tablets, or any device that can receive or send messages. Coaches, team members, and guests are to sit behind their team. Coaches, your protests need to be at the allowed times.

- Introduce yourself and the chief judge.
- **Give your four count.** – Do this for every match (Game Procedures A – 11)
- Have the chief judge check the buzzers.

Note (do not read):

Official closest to scorekeeper: Make sure that scorekeeper has **full names** of students and check after first few questions that they are fully shading in correct answers, and marking correct answers only.

Official closest to timekeeper: Make sure the timekeeper is starting the clock and clearing for the first few questions.

**OSSAA 2024-2025
AREA GAME 5**

**QUARTER 1
TOSS-UP QUESTIONS**

1. This amendment to the U.S. Constitution, ratified in 1865, abolished slavery and involuntary servitude, except as punishment for a crime. It marked a significant turning point in American history by formally ending the institution of slavery following the Civil War. Identify this amendment.

Answer: Thirteenth Amendment

2. **Math Computation:** Take matrix A and subtract matrix B: Matrix A has elements 7 and 5 top row left to right, and elements 3 and 10 bottom row left to right. Matrix B has elements 2 and -3 top row left to right and elements 4 and -1 bottom row left to right.

Answer: 5 and 8 top row left to right, -1 and 11 bottom row left to right

3. This novel tells the story of Edna Pontellier, a woman in late 19th-century Louisiana, as she begins to question her traditional roles as wife and mother after a transformative summer on Grand Isle. Her relationships with Robert Lebrun and Alcee Arobin further push her toward personal freedom. What is this groundbreaking work by Kate Chopin?

Answer: *The Awakening*

4. This Secretary of Agriculture previously held the same position under President Obama, where he emphasized rural development, biofuels, and food security. Who is this politician who also served as a two-term governor of Iowa from 1999 to 2007?

Answer: Tom Vilsack

5. **Science computation:** Convert 464 piconewtons into newtons in correct scientific notation.

Answer: 4.64×10^{-10} [read: 8.22 times ten to the negative tenth (power)]

**OSSAA 2024-2025
AREA GAME 5
QUARTER 1
TOSS-UP QUESTIONS**

6. This Shakespearean play, set in Renaissance Venice, revolves around a complex legal conflict between the merchant Antonio and the Jewish moneylender Shylock, who demands a pound of flesh as collateral for a loan. It also features the romantic subplot of Portia and her suitors, resolved through a clever disguise. What is this play?

Answer: *The Merchant of Venice*

7. **Science computation:** 4.92 coulombs of charge pass through a filament of a light bulb in 6.0 seconds. What is the current, in amperes, passing through the bulb?

Answer: 0.82

8. This type of electromagnetic radiation has wavelengths longer than visible light but shorter than microwaves. It is commonly associated with heat, as it is emitted by warm objects, and is used in night-vision devices and remote controls. Name this type of radiation, found just beyond the red end of the visible spectrum.

Answer: Infrared

9. This Dutch artist is known for his abstract works that use geometric forms and primary colors to express harmony and balance. His signature style, called neoplasticism, features a grid of black lines filled with blocks of primary colors. Who is this influential painter, famous for works like *Composition with Red, Blue, and Yellow*?

Answer: Piet Mondrian

10. This semi-autobiographical novel follows Arnold Spirit Jr., a Native American teenager who transfers from his reservation school to a predominantly white high school to seek better opportunities. What is this National Book Award-winning work by Sherman Alexie?

Answer: *The Absolutely True Diary of a Part-Time Indian*

**OSSAA 2024-2025
AREA GAME 5
QUARTER 1
TOSS-UP QUESTIONS**

11. This empire originated when the Roman emperor Constantine I dedicated a "New Rome" on the site of an ancient Greek colony. Serving as a bridge between Europe and Asia it was known for its tradition of art, literature, and learning. This empire lasted for more than a thousand years until it fell to the Ottomans in 1453. What is this empire?

Answer: Byzantine Empire

12. On August 28, 2024, Israel's military conducted airstrikes and raids in this territory, killing at least nine Palestinians in the city of Tulkarm and a refugee camp in Nur Shams. In which occupied territory did these operations take place?

Answer: West Bank

13. **Math Computation:** What percent of 500 is 175?

Answer: 35

14. This 19th-century politician served as the youngest-ever Vice President of the United States under James Buchanan. A supporter of Southern interests, he ran as the Southern Democratic candidate in the 1860 presidential election and later joined the Confederacy as a general during the Civil War. Who was this figure in American history?

Answer: John C. Breckinridge

15. This thin, double-layered membrane surrounds the lungs and lines the chest cavity, providing lubrication and reducing friction during breathing. Its layers include the visceral layer, which covers the lungs, and the parietal layer, which lines the thoracic cavity. What is this essential structure of the respiratory system?

Answer: Pleura

16. This iconic video game series, first released in 1999, revolutionized skateboarding games with its combination of realistic tricks, arcade-style gameplay, and an unforgettable soundtrack. Featuring professional skaters, including its namesake, what is this influential game franchise?

Answer: *Tony Hawk's Pro Skater*

**OSSAA 2024-2025
AREA GAME 5
QUARTER 1
TOSS-UP QUESTIONS**

17. This ancient Greek playwright, often called the "Father of Tragedy," expanded the dramatic form by introducing a second actor and reducing the chorus's role in storytelling. His surviving works include *The Oresteia* trilogy and *Seven Against Thebes*. Who is this influential figure in classical Greek drama?

Answer: Aeschylus

18. This ecological interaction benefits both species involved, as they cooperate for resources, protection, or other advantages. Examples include pollinators like bees aiding flowers in reproduction while gaining nectar and clownfish living among sea anemones for protection. What is this type of symbiotic relationship?

Answer: Mutualism

19. This national park, located in southeast Alaska, is known for its stunning tidewater glaciers, rugged mountains, and diverse ecosystems. Covering over 3 million acres, it is part of a UNESCO World Heritage Site and offers habitats for whales, seals, and bears. What is this park, accessible primarily by boat or air, called?

Answer: Glacier Bay National Park

20. These consistent, steady winds blow from east to west in the tropical regions of the Earth, between approximately 30 degrees north and south of the equator. They are driven by the Coriolis effect and play a critical role in global weather patterns and ocean currents. What are these winds that historically aided sailing ships called?

Answer: Trade winds

Moderator: (Check score with chief judge and scorekeeper.)

The score at the end of the first quarter is:

(school name) _____ has _____ points

(school name) _____ has _____ points

Coaches you may approach your team for 30 seconds to assist in any questions.

This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge: (Restate the score if they have changed because of protests.)

(In case of a tie after the first quarter) Since the score is tied, we will continue with additional toss-up questions until one team scores. (Restate the score if necessary)

2nd Quarter – Sixty Second Instructions

Moderator: **The second quarter of sixty second questions is about to begin. Everyone please be seated. The categories for the 2nd quarter are: (Brief description)**

- 1. SOCIAL STUDIES – SENATORS BY STATE**
- 2. SPORTS – MLB MANAGERS BY TEAM**
- 3. POP CULTURE – CELEBRITY DEATHS 2024**

Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.

Because (school name) is ahead at this time, they will have the choice to play or defer until the 4th quarter.

- **You will have 10 seconds to make your decision. (School name) do you choose to play or defer?**
- **(Address playing team) You will have 10 seconds to choose your category (re-read the above categories)**
- **(If the 10 second buzzer goes off, the moderator will ask for an immediate response.)**
- **Since (school name) is playing first, they may move to a position behind their captain. (Other team) will put down their pencils until their time to play. Captain, all answers will come from you unless you defer to another student.**

Moderator (School name) **You have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your choice.**

The selections are:

1.

2.

Moderator (Check the score with the chief judge and score keeper.)

The score at the end of the first half is:

(School name) _____ has _____ points

(School name) _____ has _____ points.

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charged time out. (Pause briefly for protests.)

This concludes the first half of play. We will pause for substitutions

Substituting team members, please check in with the scorekeeper. WE WILL NOW BEGIN 3RD QUARTER TOSS-UP QUESTIONS.

**OSSAA 2024-2025
AREA GAME 5
QUARTER 2
LIGHTNING ROUND**

Senators by State

Directions: Given the name of a United States senator, name the state of which they are currently senator.

Mitch McConnell	Kentucky
Chuck Schumer	New York
Elizabeth Warren	Massachusetts
Marco Rubio	Florida
Ted Cruz	Texas
Alex Padilla	California
Bernie Sanders	Vermont
Susan Collins	Maine
Tom Cotton	Arkansas
Tim Kaine	Virginia

Extras:

Tammy Duckworth	Illinois
Joe Manchin	West Virginia

Total 1: _____ Total 2: _____

**OSSAA 2024-2025
AREA GAME 5
QUARTER 2
LIGHTNING ROUND
MLB Managers by Team**

Directions: Given the name of an MLB Team, name the manager.

Kansas City Royals	Matt <u>Quatraro</u>
Los Angeles Angels	Ron <u>Washington</u>
Minnesota Twins	Rocco <u>Baldelli</u>
New York Yankees	Aaron <u>Boone</u>
Oakland Athletics	Mark <u>Kotsay</u>
Seattle Mariners	Dan <u>Wilson</u>
Miami Marlins	Clayton <u>McCullough</u>
Milwaukee Brewers	Pat <u>Murphy</u>
New York Mets	Carlos <u>Mendoza</u>
.Philadelphia Phillies	Rob <u>Thomson</u>
Extras:	
.Pittsburgh Pirates	Derek <u>Shelton</u>
.St. Louis Cardinals	Oliver <u>Marmol</u>

**OSSAA 2024-2025
AREA GAME 5
QUARTER 2
LIGHTNING ROUND**

Celebrity Deaths 2024

Directions: Directions: Given a brief description, identify the celebrity who passed away in 2024.

Actor who voiced Darth Vader and Mufasa.	James Earl <u>Jones</u>
Host of a groundbreaking 1967 talk show.	Phil <u>Donahue</u>
English blues guitarist, founder of the Bluesbreakers.	John <u>Mayall</u>
Comedian and actor from "Elf," known for deadpan delivery.	Bob <u>Newhart</u>
Former CNN anchor, known for his finance and immigration views.	Lou <u>Dobbs</u>
Eccentric fitness guru, creator of "Sweatin' to the Oldies."	Richard <u>Simmons</u>
Actress from "90210" and "Charmed."	Shannen <u>Doherty</u>
Canadian actor, Chandler in "Friends."	Matthew <u>Perry</u>
Hall of Fame first baseman, "Baby Bull."	Orlando <u>Cepeda</u>
.Comedian, actor from "Roseanne" and "Clue."	Martin <u>Mull</u>
Extras:	
.Veteran actor from "MASH" and "The Hunger Games."	Donald <u>Sutherland</u>
.Hall of Fame outfielder with 660 home runs.	Willie <u>Mays</u>

**OSSAA 2024-2025
AREA GAME 5
QUARTER 3
TOSS-UP QUESTIONS**

21. On August 25, 2024, flooding in the northeastern part of this country left millions of people affected and forced evacuations by Army and Navy personnel. Which country, located next to India, is dealing with extreme flooding after torrential rains?

Answer: Bangladesh

22. This short story follows Mathilde Loisel, a dissatisfied middle-class woman who borrows a piece of jewelry to attend a prestigious ball, only to lose it. After years of hardship to replace the expensive-looking piece, she discovers it was fake. What is this ironic tale by Guy de Maupassant?

Answer: *The Necklace (La Parure)*

23. This iconic amphitheater, completed in 80 CE, was capable of seating tens of thousands, it featured advanced engineering, including a retractable awning system. It was used for gladiatorial contests, animal hunts, and public spectacles in ancient Rome. What is this symbol of Roman architecture and one of the New Seven Wonders of the World?

Answer: The Colosseum

24. This 1939 comedic play follows the chaos that ensues when an acerbic radio personality, Sheridan Whiteside, is injured while visiting a family in Ohio and becomes their unwelcome houseguest. Filled with witty dialogue and eccentric characters, what is this classic work by George S. Kaufman and Moss Hart?

Answer: *The Man Who Came to Dinner*

25. This man theorized that diseases had physical and rational explanations and suggested that bad hygiene could be a contributor to the development of illnesses. Who is this Greek physician known as the "Father of Western Medicine," who was among the first to suggest that diseases were caused naturally, not as a result of superstitions and gods?

Answer: Hippocrates

**OSSAA 2024-2025
AREA GAME 5
QUARTER 3
TOSS-UP QUESTIONS**

26. This 1967 war film follows a group of convicted military prisoners offered a chance at redemption if they complete a dangerous mission behind enemy lines during World War II. Led by Major Reisman, the team trains for a high-stakes assault on a German stronghold. What is this action-packed classic starring Lee Marvin?

Answer: *The Dirty Dozen*

27. This animation technique involves tracing over live-action footage frame by frame to create realistic motion in animated films. First used in the early 20th century, it has been employed in works like Disney's *Snow White and the Seven Dwarfs* and modern visual effects. What is this method called?

Answer: Rotoscoping

28. This system, developed in the early 19th century, classifies wind speeds based on observed effects on land and sea. It ranges from 0, indicating calm conditions, to 12, representing hurricane-force winds. What is this scale, named after a British admiral, used to measure wind intensity?

Answer: Beaufort Wind Scale

29. **Math Computation:** Add the following 2 matrices: Matrix A has elements 5 and -6 top row left to right, and elements 12 and -4 bottom row left to right. Matrix B has elements -3 and 9 top row left to right and elements 7 and -2 bottom row left to right.

Answer: 2 and 3 top row left to right, 19 and -6 bottom row left to right

30. This battle during the Korean War involved a series of assaults by United Nations forces, primarily American and French troops, against entrenched North Korean and Chinese forces. What is this 1951 battle that was characterized by its rugged terrain and high casualties?

Answer: Battle of Heartbreak Ridge

**OSSAA 2024-2025
AREA GAME 5
QUARTER 3
TOSS-UP QUESTIONS**

31. This celebrated 20th-century American poet is renowned for his portrayals of New England life. A four-time Pulitzer Prize winner, he was a frequent speaker at public events, including John F. Kennedy's 1961 inauguration. Who is this author of *The Road Not Taken* and *Stopping by Woods on a Snowy Evening*?

Answer: Robert Frost

32. **Math Computation:** Two cards are drawn at random from a standard 52 card deck. What is the probability that a spade and then an ace is drawn, when the first card is replaced before drawing the second card? Make sure to reduce your fractional answer.

Answer: 1/52

33. This 20th-century American composer is celebrated for his ability to capture the spirit of American life in music, blending classical traditions with folk influences. His works include *Appalachian Spring*, *Fanfare for the Common Man*, and *Rodeo*. Who is this influential figure in modern classical music?

Answer: Aaron Copland

34. This process involves the gradual degradation of materials, usually metals, through chemical or electrochemical reactions with their environment. Common examples include rusting of iron and tarnishing of silver, often accelerated by factors like moisture or salt. What is this phenomenon that weakens structures?

Answer: Corrosion

35. This narrow strip of land connects North and South America and separates the Pacific and Atlantic Oceans. It is home to a vital canal completed in 1914 that revolutionized global shipping by providing a shortcut for maritime trade. What is this geographically significant landform?

Answer: Isthmus of Panama

**OSSAA 2024-2025
AREA GAME 5
QUARTER 3
TOSS-UP QUESTIONS**

36. **Math Computation:** A ladder leans against the side of the house, forming a 45 degree angle with the side of the house. If the ladder is 20 feet long, how far away from the side of the house is the base of the ladder in feet?

Answer: $10\sqrt{2}$

37. This fundamental principle of physics quantifies the force between two charged objects. It states that the force is directly proportional to the product of the charges and inversely proportional to the square of the distance between them. What is this law, named after a French physicist, that describes electrostatic interactions?

Answer: Coulomb's Law

38. **Science computation:** Convert 45 deciamperes into gigaamperes in correct scientific notation.

Answer: 4.5×10^{-9} [read: 4.5 times ten to the negative ninth (power)]

39. This author, who wrote primarily in French despite being Irish-born, is known for works that explore bleak futility and repetition. Who is this Nobel Prize-winning playwright of works such as *Endgame* and *Waiting for Godot*?

Answer: Samuel Beckett

40. This historic city, straddling Europe and Asia across the Bosphorus Strait, has served as the capital of three major empires: Roman, Byzantine, and Ottoman. Formerly known as Byzantium and later Constantinople, it is renowned for landmarks like the Hagia Sophia and the Blue Mosque. What is this modern cultural and economic hub of Turkey?

Answer: Istanbul

Moderator (Check score with chief judge and scorekeeper.)
The score at the end of the third quarter is:
(school name) _____ has _____ points
(school name) _____ has _____ points
Coaches you may approach your team for 30 seconds to assist in any questions.
This is not a charged time out. (Pause briefly for protests.) Are there any questions?

Chief Judge (Restate the score if they have changed because of protests.)

4th Quarter – Sixty Second Instructions

Moderator **The fourth quarter of sixty second questions is about to begin. Everyone please be seated.**
The categories for the 4th quarter are: (Brief description)
1. MATH – RIGHT TRIANGLES
2. SCIENCE – STARS AND CONSTELLATIONS
3. LITERATURE – AUTHOR PEN NAMES
Teams, you may briefly make substitutions without conferring. (You have 20 seconds to announce your substitutions). Your 20 seconds begins now.
Because (school name) chose first in the 2nd quarter, (school name) will have the first choice this quarter.

You will have 10 seconds to choose your category.
(Active team) may move to a position behind the captain. (Other team) put down your pencils.
Captain, all answers will come from you unless you defer to another student.

Moderator (School name) **You will have your choice of the two remaining categories. (Other team) put down your pencils. (Active school) may move to a position behind your captain. You will have 10 seconds to make your selection.**

The selections are:

- 1.**
- 2.**

Moderator (Check the score with the chief judge and score keeper) **The score at the end of the game is:**
(School name) _____ has _____ points
(School name) _____ has _____ points

Are there any questions? Coaches you may approach your team for 30 seconds to assist in any questions. This is not a charges time out.
(Restate the score if it has changed)

(If the game is tied, sudden death questions will be asked.)
Because the game is tied, sudden death toss-up questions will be asked. Would either team like to make substitutions? Again, this is not a time for coaches to confer with their team. (Pause for substitutions.)

Moderator **This concludes the game. Congratulations to both teams. Please check your bracket and move to the next round as quickly as possible.**

OSSAA 2024-2025
AREA GAME 5
QUARTER 4
LIGHTNING ROUND

Math: Right Triangles

Directions: Find the length of the hypotenuse of each of the following right triangles:

Legs are 7 and 1	$\sqrt{50}$
Both legs = 4	$4\sqrt{2}$
Legs are 8 and 1	$\sqrt{65}$
Legs are 8 and 6	10
Legs are 9 and 12	15
Legs are 5 and 12	13
Legs are 4 and 3	5
Legs are 4 and 5	$\sqrt{41}$
Legs are 3 and 6	$3\sqrt{5}$
.Both legs = 14	$14\sqrt{2}$
Extras:	
.Legs are 2 and 3	$\sqrt{13}$
.Both legs = 1	$\sqrt{2}$

Total 1: _____ Total 2: _____

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LIGHTNING ROUND**

Science: Stars and Constellations

Directions: Given the star, name the constellation where it is located.

Castor	Gemini
Antares	Scorpius
Canopus	Carina
Regulus	Leo
Rigel	Orion
Deneb	Cygnus
Vega	Lyra
Aldebaran	Taurus
Alpha Centauri	Centaurus
.Altair	Aquila
Extras:	
.Pollux	Gemini
.Sirius	Canis Major

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Literature: Author Pen Names

Directions: Given the Pen Name of a famous author, provide the real name.

George Orwell	Eric Arthur <u>Blair</u>
George Eliot	Mary Ann <u>Evans</u>
Jack Kirby	Jacob <u>Kurtzberg</u>
Lewis Carroll	Charles Lutwidge <u>Dodgson</u>
Mark Twain	Samuel Langhorne <u>Clemens</u>
Maya Angelou	Marguerite Annie <u>Johnson</u>
O. Henry	William Sydney <u>Porter</u>
Stan Lee	Stanley Martin <u>Lieber</u>
Dr. Seuss	Theodor Seuss <u>Geisel</u>
.Mary Westmacott	Agatha <u>Christie</u>
Extras:	
.Lemony Snicket	Daniel <u>Handler</u>
.Richard Bachman	Stephen <u>King</u>

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Extra Questions

E1. This biblical figure was sold into slavery by his brothers but rose to become the second most powerful man in Egypt. He is known for interpreting Pharaoh's dreams about a forthcoming famine. Who is this son of Jacob and Rachel, who wore a coat of many colors?

Answer: Joseph

E2. This French playwright is known for his comedies that satirize the hypocrisies of society, particularly targeting the bourgeoisie, religion, and medicine. His most famous works include *Tartuffe*, *The Misanthrope*, and *The Imaginary Invalid*. Name this writer, considered one of the greatest masters of comedic drama.

Answer: Molière

E3. This World War II-era facility, located near Pryor, Oklahoma, was built to produce explosives like TNT for the war effort. Covering thousands of acres, it was one of the largest munitions plants in the U.S. during the conflict. What was this industrial site known for its significant contribution to the Allied war effort?

Answer: Oklahoma Ordnance Works

E4. This technology is used to capture, store, analyze, and display spatial or geographic data. It combines layers of information, such as maps, satellite imagery, and demographic statistics, to aid in decision-making across fields like urban planning, environmental management, and disaster response. What is this system?

Answer: GIS (Geographic Information System)

E5. **Math Computation:** Add and simplify the following radicals: $\sqrt{50} + \sqrt{200}$
[radical 50 plus radical 200]

Answer: $15\sqrt{2}$ [15 radical 2 or 5 times the square root of 2]

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E6. This Pulitzer Prize-winning novel follows the dramatic events aboard a World War II naval minesweeper. Centered on a tense court-martial, it explores the conflict between officers and the erratic behavior of the ship's captain, Philip Queeg. What is this 1951 work by Herman Wouk?

Answer: *The Caine Mutiny*

E7. This U.S. Marine Corps sniper gained legendary status during the Vietnam War, credited with 93 confirmed kills and renowned for his precision and stealth. Known by the nickname "White Feather," he undertook dangerous missions, including eliminating a high-ranking enemy general. Who is this celebrated marksman in military history?

Answer: Carlos Hathcock

E8. **Math Computation:** Hunter has averaged an 82 on his first four tests. What must he score on his next test to raise his average to an 85?

Answer: 97

E9. This disease is caused by the reactivation of the varicella-zoster virus, which also causes chickenpox. It typically presents as a painful rash on one side of the body or face, often accompanied by nerve pain that can persist after the rash heals. What is this condition?

Answer: Shingles

E10. This upcoming Marvel film had its main cast revealed on Valentine's Day 2024. What is this 2025 superhero film starring Pedro Pascal, Vanessa Kirby, Ebon Moss-Bachrach, and Joseph Quinn as Marvel's first family?

Answer: *Fantastic Four: First Steps*