**The 2021 Scottie**



Written by former players and coaches including Todd Garrison, Tyler Reid, Olivia Kiser, Griffin Reid, Caleb West, Robert Oliver, Jason Dooley, Stratton Kiser, Tabitha Cline, and William Parocai. Edited by Tyler Reid (Chief Editor), Todd Garrison, and Olivia Kiser.

**Round Twelve**

1. **Pieces of music composed for an ensemble of these instruments are known as aequales *[equals]*. A solo for this instrument which notably lacks markings opens the “Tuba Mirum” section of Mozart’s Requiem, while a famous player of it recorded jazz standards like “Moonlight Serenade” and “In the Mood.” This instrument played by Glen** (\*) Miller evolved from the medieval sackbut, and is known for the ease with which it can play glissandi. For 10 points, name this brass instrument whose pitch can be changed by moving its slide.

ANSWER: **trombone** <GR>

1. The source of this river is Lake Manasarovar on the Tibetan Plateau. For 10 points each:

[10] Name this Asian river. An ancient civilization named for this river included cities like Harappa.

ANSWER: **Indus** River

[10] The Indus River flows through much of this modern-day country, including its port city of Karachi.

ANSWER: **Pakistan**

[10] The Pakistani province Sindh contains portions of this desert, which is mostly located in western India.

ANSWER: **Thar** Desert <GR>

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2. **The “vertical” form of this quantity describes the most probable transition of electrons, and guanine has the lowest value for this quantity of the four nitrogenous bases found in DNA. The shielding effect can result in a decrease in this quantity, as can a higher** (\*) atomic radius. Like electronegativity, this quantity is highest near the top right of the periodic table. For 10 points, name this quantity that gives the amount of energy needed to remove an atom’s most loosely bound electron.

ANSWER: first **ionization energy** [or **ionization potential**] <CW>

2. Answer the following questions about automatons, for 10 points each.

[10] The word "robot" first appeared in this play written by Czech playwright Karel Capek.

ANSWER: ***R.U.R.*** [or ***Rossum’s Universal Robots***]

[10] Dr. Susan Calvin, a "robopsychologist," is the main character of several short stories from this fix-up novel, which outlined its author's Three Laws of Robotics.

ANSWER: ***I, Robot***

[10] This author of *I, Robot* wrote more than five hundred works on a variety of subjects, including the science fiction *Foundation* series and the three-volume *Understanding Physics*.

ANSWER: Isaac **Asimov** <JD>

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3. **It’s not Argentina or Uruguay, but the longest river on this island is the Rio de la Plata. In addition to its main island, the small islands of Vieques, Mona, and Culebra are part of this territory. This territory is home to the El** (\*) Yunque rainforest, the only tropical rainforest in the country to which it belongs. This island is the easternmost point and smallest island in the Greater Antilles. For 10 points, name this Caribbean territory of the United States with capital at San Juan.

ANSWER: **Puerto Rico** <GR>

3. Name the following “points” associated with phase changes, for 10 points each.

[10] This quantity for water can be lowered by adding salt. It is defined as the temperature at which a solid will transition into a liquid, or vice versa.

ANSWER: **melting** point [or **freezing** point]

[10] The end of the gas-liquid coexistence line on a phase diagram marks this point, at which the heat of vaporization reaches zero.

ANSWER: **critical** point

[10] This equation is used to describe the relationship between pressure and temperature for conditions of equilibrium between two phases, and gives the slope of the tangent to the coexistence curve.

ANSWER: **Clausius-Clapeyron** relation <CW>

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4. **An Associate Justice of the Supreme Court used a standard set in this case to argue in favor of the defendant in *Abrams v. United States*. The defendant in this case was jailed for distributing documents which quoted the 13th Amendment before stating “Do not submit to intimidation.” A standard set by this case was superseded after *Brandenburg v. Ohio* established the (\*)** “imminent lawless action” test. This case stemmed from a violation of the Espionage Act, which prohibited obstruction of the draft. For 10 points, name this 1919 Supreme Court case which limited the First Amendment with the “clear and present danger” test.

ANSWER: ***Schenck*** *v. United States* <TG>

4. These structures come in effigy and platform varieties, and some of them may have played a role in burial rituals. For 10 points each:

[10] Name these earthworks which lend their name to a variety of cultures who built them, including the Adena and Hopewell.

ANSWER: **mound**s [accept **Mound** Builders]

[10] The Adena and Hopewell cultures both had a significant presence in this midwestern state. The Great Serpent Mound is located about seventy miles east of this state’s city of Cincinnati.

ANSWER: **Ohio**

[10] Monks Mound is one of the many remaining mounds at this site, which was once the center of the Mississippian culture. This site lies just east of modern St. Louis.

ANSWER: **Cahokia** <TR>

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5. **Near the end of the novel, the main character visits his mother, who has developed dementia, in an attempt to seek closure. After coworkers of this work’s protagonist find they can no longer make jokes at his expense, they push to have him fired from his job at the bakery. This epistolary novel is told through a series of seventeen (\*)** “progress reports,” with the sixteenth predicting the protagonist’s mental regression after he observes the erratic behavior and death of this work’s title mouse. For 10 points, name this Daniel Keyes novel in which Charlie Gordon undergoes surgery that more than doubles his IQ.

ANSWER: ***Flowers for Algernon*** <TC/TG>

5. Tchaikovsky’s music for *Sleeping Beauty* and Dvorak’s *Slavonik Dance No. 2* are works in this genre. For 10 points each:

[10] Name this music written for a couples dance in triple time. Contrary to its name, Chopin’s “Minute” version of this style of music was intended to take around 2 minutes.

ANSWER: **waltz**

[10] This composer was known as “The Waltz King.” His “Kaiser-Walzer” and “Tales from the Vienna Woods” are two of his more famous waltzes.

ANSWER: **Johann Strauss II** [or Johann **Strauss the Younger;** accept Johann **Strauss Jr**.; prompt on “Strauss”; do not accept “Richard Strauss”; do not accept “Johann Strauss Sr.”; do not accept “Johann Strauss the Elder”]

[10] This Strauss work about a European river is actually a chain of five interinked waltz themes and is Austria’s second national anthem.

ANSWER: “By the Beautiful **Blue Danube**” [or "An der schönen **blauen Donau**"]

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6. **This artist stated “It was like jumping in a lake full of sharks and piranhas” when describing his performance at the BET Music Awards. The second verse of one song by this man opens “I wanna sell what you’re buyin’,” and another of his songs has the record for most consecutive weeks atop the *Billboard* Hot 100. Nike sued internet collective** (\*) MSCHF [*mischief*] for selling unauthorized “Satan Shoes” in collaboration with this rapper, who recently collaborated with Jack Harlow on “Industry Baby.” For 10 points, name this artist who rose to fame with “Old Town Road” and recently released his first studio album, *Montero*.

ANSWER: **Lil Nas X** [or Montero Lamar **Hill**] <RO>

6. In June 2021, this company was forced to pay a record one million dollars after violating the New York City Human Rights Law. For 10 points each:

[10] Name this conservative news channel that employs broadcasters like Sean Hannity.

ANSWER: **Fox** News Channel

[10] This other Fox News presenter has faced several controversies, including calling white supremacy a “hoax” that is “actually not a real problem in America.” His namesake talk show is the most watched news show in cable history.

ANSWER: Tucker **Carlson**

[10] In March 2021, Carlson had an interview with this Florida representative about claims that he was involved in sex trafficking. The allegations were worsened by the fact that he was the only person to vote “no” on a 2017 anti human trafficking bill.

ANSWER: Matt **Gaetz** <GR>

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7. **A large statue of this man on horseback is part of the *Altare della Patria* and has been called the “wedding cake” and the “typewriter” by critics. Charles Albert abdicated in favour of this man, his son, after losing the battle of Novara, and Napoleon III allied with this leader to win the Battle of Solferino. This conqueror of the (\*)** Papal States had his excommunication reversed by Pope Pius IX, and Count Cavour was his first prime minister. For 10 points, name this “Father of the Fatherland” who became the first king of a united Italy.

ANSWER: **Victor Emmanuel II** [prompt on partial] <TG>

7. Diseases of this system are the most common cause of death globally. For 10 points each:

[10] Name this organ system, centered around the heart, that circulates blood throughout the body.

ANSWER: **cardiovascular** system [or **circulatory** system]

[10] This section of muscle cells in the heart is named for a Swiss cardiologist and conducts electrical impulses from the atrioventricular node to the Purkinje fibers.

ANSWER: **Bundle of His**

[10] Regurgitation of this valve can result from using His Bundle Pacing to maintain the heart’s function. This valve mediates the flow of blood from the right atrium to the right ventricle during the systole phase.

ANSWER: **tricuspid** valve [or **right atrioventricular** valve] <CW>

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8. **A novelist from this country begins one work with an emcee shouting “Showtime!” at the Tropicana Cabaret. This country, which is the setting of the novel *Three Trapped Tigers*, is also home to an author who wrote a work narrated by a Hatian slave named Ti Noel. A poetry collection from this country called *Versos (\*)*** *Sencillos* includes “I am a sincere man,” and Hemingway set *The Old Man and the Sea* here. For 10 points, name this country whose patriotic song “Guantanamera” was adapted from the lyrics to a Jose Marti poem.

ANSWER: **Cuba** <RO>

8. Answer the following about massacres in Eastern Europe, for 10 points each.

[10] Ratko Mladic’s troops killed nearly 8,000 people near this town during the Bosnian War.

ANSWER: **Srebrenica**

[10] The Nazis killed nearly 33,000 Jews in this massacre named for a ravine outside of Kiev.

ANSWER: **Babi Yar**

[10] In 2004, the European Parliment classified the Soviet Union’s deportation of the Ingush and other peoples from this territory as a genocide. This republic in the Caucasus failed to gain independence during a war with Russia in the 1990s.

ANSWER: **Chechnya** [accept **Chechen Republic**] <GR>

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9. **George Smith invented a technique that uses a type of this microorganism to study biological molecular interactions, and a classification system named for David Baltimore organizes them into seven unique groups. One type of these pathogens was used to confirm that DNA is genetic material in the (\*)** Hershey-Chase experiment. Bacteriophages are one type of this organism, which cannot replicate without a host cell and typically contains a protein shell called a capsid. For 10 points, name this type of pathogen, one of which is responsible for the COVID-19 pandemic

ANSWER: **virus**es <CW>

9. Several early developments in this field were based on the existence of four humors. For 10 points each:

[10] Name this field, whose pioneers included Galen and Hippocrates.

ANSWER: **medicine**

[10] This thinker compiled all known medical treatments in the Islamic world in his *The Canon of Medicine*. Another book on health written by this Persian is *The Book of Healing*.

ANSWER: **Avicenna** [accept **Ibn Sina**]

[10] Medicine was described as a basic religious obligation by this Jewish philosopher, who compiled Jewish law in the *Mishneh Torah*.

ANSWER: Moses**Maimonides** <GR>

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10. **This man argued that systems of thought are governed by subconscious rules in a work which describes the “archaeological method.” This thinker analyzed the Renaissance, classical, and modern eras through epistemes in a work opening with a discussion of *Las Meninas*, *The* (\*)** *Order of Things***.** This man rejects the “repressive hypothesis” in *The Will to Knowledge*, the first volume of *The History of Sexuality.* For 10 points, name this French philosopher who analyzed prisons in *Discipline and Punish*.

ANSWER: Michel **Foucault** <GR>

10. This man played one of the title characters in the first film version of his play *Boesman and Lena*. For 10 points each:

[10] Name this playwright of *Blood Knot* and *“Master Harold”...and the boys*.

ANSWER: Athol **Fugard**

[10] *Blood Knot* was the first play performed in this country to feature an interracial cast. Fugard was widely regarded for his plays opposing apartheid in this country.

ANSWER: Republic of **South Africa**

[10] This other author from South Africa is known for his works *In the Heart of the Country* and *Waiting for the Barbarians.*

ANSWER: John Maxwell **Coetzee** [or J. M. **Coetzee**] <TG>

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11. **This figure offers a crown of roses to a lover in one painting whose background features the three graces holding weapons and armor. This figure is depicted sleeping in a work attributed to both Giorgione and Titian, while her face can be seen in a mirror in a work by (\*)** Velazquez. A spotted dog sleeps at the feet of this figure in one painting, and in another she is blown towards the shore while standing on a seashell. For 10 points, name this Roman goddess whose birth was depicted by Sandro Botticelli.

ANSWER: **Venus** [the works mentioned in order are: *Mars Being Disarmed by Venus*, *Sleeping Venus*, the *Rokeby Venus*, *Venus of Urbino*, and *The Birth of Venus*] <TR>

11. Answer the following about controversies surrounding the awarding of the Nobel Prize for Literature, for 10 points each.

[10] This man was awarded the nobel prize in 1958 but was forced to decline by the Soviet Union, who had not allowed the publication of his *Doctor Zhivago*.

ANSWER: Boris Leonidovich **Pasternak**

[10] This author of *Cancer Ward* was awarded the 1970 Nobel for Literature, but was unable to receive it until his expulsion from the Soviet Union in 1974.

ANSWER: Aleksandr Isayevich **Solzhenitsyn**

[10] Heavy criticism followed the awarding of the 1997 prize to this Italian, who had been censored by Italian television and denounced by the Vatican for works like *Mistero Buffo* and *Accidental Death of an Anarchist*.

ANSWER: Dario **Fo** <TG/TR>

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12. **The leader of the winning side in this battle attacked in two columns in a strategy called his namesake “Touch.” The leader of one of those columns, Cuthbert Collingwood, was seen to be calmly eating an apple as his *Royal Sovereign* engaged the *Santa Ana*, while midshipman John Pollard was credited with avenging his commander’s death by shooting a** (\*) sniper on the *Redoubtable*. The losing naval officer of this battle, Admiral Villeneuve, attended the funeral of his opponent, who said that “England expects that every man will do his duty.” For 10 points, name this naval battle in which Horatio Nelson was killed.

ANSWER: Battle of **Trafalgar** <TG>

12. This action finally took place at 11:00 pm on January 31, 2020, several years after 52% of the population voted in favor of it. For 10 points each:

[10] Name this portmanteau describing the withdrawal of the United Kingdom from the European Union.

ANSWER: **Brexit**

[10] This prime minister resigned after voters chose to leave the EU against his recommendation. He was succeeded by Theresa May..

ANSWER: David William Donald **Cameron**

[10] This man led the Brexit Party until March 2021. He was a Member of the European Parliament for over twenty years despite being a prominent Eurosceptic.

ANSWER: Nigel Paul **Farage** <TG>

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13. **In one novel named for this character, the protagonist deliberately contracts syphilis from Esmerelda and experiences headaches which lead him to write the oratorio *Apocalypsis cum Figuris*. This character slaps the pope in the ear after turning invisible in a work in which he is taught magic by Valdes and Cornelius. This character resurrected “the (\*)** face that launched a thousand ships” after seeing Helen of Troy in a namesake work, whose first part begins with a poodle following him home before turning into the demon Mephistopheles. For 10 points, name this character, the subject of plays by Marlowe and Goethe.

ANSWER: **Faust** [accept Doctor **Faustus**] <RO>

13. This Christian denomination originated during the Azusa Street Revival in Los Angeles. For 10 points each:

[10] Name this denomination that believes in baptism in the Holy Spirit, which can manifest in the form of spiritual gifts.

ANSWER: **Pentecostal**ism

[10] A common occurrence in Pentecostal services is this type of speech, in which a speaker is thought to be speaking a language otherwise unknown to them.

ANSWER: speaking in **tongues** [or **glossolalia**]

[10] An early proponent of Pentecostalism was this televangelist, who claimed to have raised the dead through his ministry and stated that he would die if he did not reach his fundraising goals. This man’s namesake university is located in Tulsa, Oklahoma.

ANSWER: Oral **Roberts** <OK>

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14. **There is much debate in Christian theology about whether this action is monergistic or synergistic, and in Buddhism, one does this via the *Ti Samana Gamana*. Jewish law requires a *mikveh* as part of this process, while in Jainism one simply begins to observe the five *vratas*. Mormons require that children be eight years old to take this action, because eight is defined as the “age of (\*)** accountability.” Quakers do not use this term, and instead say that one “becomes convinced.” For 10 points, name this practice in which someone joins a religion.

ANSWER: **conversion** [accept word forms] <TG>

14. This artist’s *Portrait of an Old Man* is believed to be a self portrait. For 10 points each:

[10] Name this Mannerist who depicted two saints descending to bury the title figure in *The Burial of the Count of Orgaz*.

ANSWER: **El Greco** [accept Doménikos **Theotokópoulos**]

[10] El Greco also painted two “views” of this Spanish city, his adopted home.

ANSWER: **Toledo**

[10] This earlier Mannerist artist studied under Pontormo, one of the first Mannerist masters. The identity of some figures in this artist’s *Venus, Cupid, Folly and Time* is still debated today.

ANSWER: Agnolo **Bronzino** [or Agnolo di **Cosimo**] <GR>

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15. **A formula for solving equations of this degree was originated by Niccolo Tartaglia, but is now named for Gerolamo Cardano. Edwards and Patau syndromes are caused when genetic mutations result in this number of a given chromosome, and this number is the first (\*)** Mersenne prime. Fermat’s Last Theorem states that no integer solutions exist for “a to the n plus b to the n equals c to the n” when n is greater than or equal to this number. Molecules with a bent VSEPR number contain this number of atoms, and this is the fourth number in the Fibonacci sequence. For 10 points, give this number of sides in a triangle.

ANSWER: **3** <JD>

15. William Herschel incorrectly assumed that this body was 18,000 light-years away in 1785. For 10 points each:

[10] Name this galaxy, the largest in the Local Group.

ANSWER: **Andromeda** Galaxy

[10] The Andromeda galaxy is the 31st object in this French astronomer’s catalogue, which now contains 110 astronomical bodies.

ANSWER: Charles **Messier**

[10] The first object in Messier’s catalogue is this supernova remnant located in the constellation Taurus. It was first observed in 1731 by John Bevis.

ANSWER: **Crab Nebula** <CW>

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16. **This figure suggested that Thor pretend to marry Thrym in order to retrieve Mjolnir, and fathered three sons who were the ancestors of serfs, peasants, and warriors respectively. This god recovered Brisingamen while in the form of a seal, and rode a golden-maned horse named Gulltoppr. This god was the son of (\*)** nine mothers, and this father of Thrall will blow the Gjallarhorn before killing and being killed by Loki at Ragnarok. For 10 points, name this Norse god who guards Bifrost.

ANSWER: **Heimdall** <JD>

16. After being fatally shot at the Battle of Noryang, this commander ordered his men to beat the war drums and not announce his death. For 10 points each:

[10] Name this admiral who helped successfully push back a Japanese invasion with the help of his turtle ships.

ANSWER: Admiral **Yi** Sunsin

[10] Admiral Yi fought for this Korean dynasty, which ruled the peninsula after overthrowing the Goryeo.

ANSWER: **Joseon** [or **Choseon**]

[10] The failed Japanese invasion was launched by this second “Great Unifier,” who tried to conquer Korea and Ming China.

ANSWER: **Toyotomi** **Hideyoshi** [accept either] <GR>

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17. **Inigo Jones’s Banqueting House at Whitehall was inspired by this architect's work, whose common name was given to him by an early patron, Trissino. This architect designed the *Teatro Olimpico* in Vicenza, which features a UNESCO site named for his (\*)** villas in the Venuto. This man’s Church of San Giorgio Maggiore was being built at the time of the publishing of his *The Four Books of Architecture*. For 10 points, name this Italian architect of the Villa Rotonda.

ANSWER: Andrea **Palladio** [accept **Andrea di Pietro** della Gondola] <TG>

17. Consumption of this substance was said to grant immortality. For 10 points each:

[10] Name this substance, which, along with nectar, was brought by a flock of doves to Olympus, where it served as the food of the gods.

ANSWER: **ambrosia**

[10] Once in Olympus, ambrosia would be served to the Olympians by either Hebe or this god. This god also lends his name to a moon of Jupiter.

ANSWER: **Ganymede**

[10] Ambrosia was used to anoint the body of Patroclus by this nymph, who also performed that action for her son.

ANSWER: **Thetis** <SK>

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18. **A number sometimes named for this quantity relates the resistance force to the force from inertia, and the Larmor formula can give this quantity for a non-inertial point charge. This quantity can be found in fluid systems by multiplying pressure and (\*)** volumetric flow rate, and it is calculated by taking the dot product of force and velocity. For 10 points, name this quantity, measured in watts, that describes the work done on a system over time.

ANSWER: **power** <CW>

18. This political satire is based on the Duke of Monmouth’s rebellion against his uncle, James II. For 10 points each:

[10] Identify this satirical poem, which is named after a Biblical son of David and one of David’s advisors.

ANSWER: ***Absalom and Achitophel***

[10] *Absalom and Achitophel* was written by this Restoration-era poet, who was appointed the first Poet Laureate of England. His *All for Love* is an adaptation of Shakespeare’s *Antony and Cleopatra*.

ANSWER: John **Dryden**

[10] This other satirical poem by Dryden was aimed at Thomas Shadwell, claiming that his distinguishing characteristic was “dullness.”

ANSWER: ***Mac Flecknoe*** <OK>

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19. **One character in this work sends his servant Victor on meaningless errands to prevent him from spying, and later blackmails a scientist in order to dispose of a body. This novel’s protagonist is called “Prince Charming” by a character who commits suicide after a subpar performance in (\*)** *Romeo and Juliet*. The death of Sybil Vane leads to Lord Henry Wotton further corrupting this novel’s protagonist, who dies after stabbing an artwork made by Basil Hallward. For 10 points, name this work about a portrait which ages instead of its owner, the only novel by Oscar Wilde.

ANSWER: *The* ***Picture of Dorian Gray*** <JD/TR>

19. The origin of this dance is credited to Perez Prado, who introduced it at a nightclub in Havana in 1943. For 10 points each:

[10] Name this Cuban dance with rock steps and side steps that shares its name with a type of voodoo priest.

ANSWER: **mambo**

[10] This other Cuban dance developed out of the Triple Mambo. The name of this dance comes from the sound the feet make when doing a quick triple step.

ANSWER: **cha-cha**-cha

[10] This syncretic dance combines rhythms of Danzon, Mambo, and other Afro-Cuban dances and has geographically themed styles like Colombian “Cali'' style and the Cuban “Casino” style. This dance’s name means “sauce” in Spanish.

ANSWER: **salsa** <TG>

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20. **A religious pilgrimage in this country called the Magal Touba is a celebration of the Sufi saint Cheikh Amadou Bamba. For two months in 1960, this country and the French Sudan merged to form the Mali Federation, after which both became independent. The House of Slaves on this country’s island of (\*)** Goree contains the Door of No Return. In the 1980s, this country joined a confederation with the Gambia, whose borders are mostly inside of it. For 10 points, name this West African country with capital at Dakar.

ANSWER: Republic of **Senegal** <TG>

20. In a colloid, light undergoes this process through the Tyndall Effect. For 10 points each:

[10] Name this general process in which a moving particle is forced off of a straight path.

ANSWER: **scattering**

[10] This type of scattering, which helps explain why the sky appears blue, involves elastic collisions between light and other particles and requires the size of the particles to be much lower than the wavelength.

ANSWER: **Rayleigh** scattering

[10] This other form of scattering, used in a namesake spectroscopy method, is similar to Rayleigh scattering, though the collisions involved are inelastic rather than elastic.

ANSWER: **Raman** scattering <CW>