

# Replacements

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## Tossups

(1) Ethyne [**eth-ine**] contains two hydrogen atoms and two atoms of this element. In a 2004 experiment, Scotch tape was used to create monolayers of this element. Allotropes of this element include materials like **graphene and (\*)** diamond, and a radioactive isotope of this element with a half-life of 5,730 years is used in archaeological dating. Organic chemistry is the study of molecules with, for ten points, what element with atomic number six and chemical symbol C?

ANSWER: carbon (accept C before it is read)

(2) Missionaries agreed to aid children during this event if they agreed to receive Protestant teachings, an act known as “souperism.” Sir Robert Peel repealed the Corn Laws in response to this event, in which thousands died while fleeing to North America in “coffin ships.” This event was caused by a (\*) strain of the water mold *Phytophthora* [**fye-tohf-thoh-rah**] infestans. For ten points, name this 1845-1849 disaster, a blight of the staple crop of Ireland.

ANSWER: Irish Potato Famine (accept the Great Famine or the Great Hunger; accept an Gorta Mor; prompt on “famine” alone)

(3) In a book about this character, he shouts “David and Goliath!” when asked who the first two disciples of Jesus were. Sequels to that novel describe this character *Abroad* and as a *Detective*. This character finds (\*) Injun Joe while lost in McDougal’s cave with Becky Thatcher, and he persuades a group of boys to whitewash a fence for him. For ten points, name this character created by Mark Twain, a friend of Huckleberry Finn.

ANSWER: Tom Sawyer (accept either underlined name; accept Thomas Sawyer)

(4) This country’s city of Kirkuk is one of several cities that claims to hold the tomb of the prophet Daniel. The cities of Baqubah, Ramadi, and Tikri form this country’s “Sunni triangle.” This country’s city of Qurna sits at the confluence of two rivers that then form the (\*) Shatt al-Arab, which flows southeast past Basra to the Persian Gulf. The Tigris and Euphrates [**yoo-fray-teez**] Rivers irrigate the Fertile Crescent in, for ten points, what country whose capital is Baghdad?

ANSWER: Republic of Iraq

(5) If folic acid is deficient during pregnancy, this anatomical structure may not fully close in the child. Parts of this structure fuse to form the human sacrum. Extensions of this structure supported the dimetrodon’s (\*) sail. A sideways curve of this structure is called scoliosis, and CSF is extracted by a “tap” of this body part. Thoracic, cervical, and lumbar segments make up, for ten points, what structure that invertebrates do not possess?

ANSWER: spine (accept backbone; accept vertebral column)

(6) **Raphael Lemkin coined this term and pushed for a 1948 convention defining it. One of these events is euphemistically called the “Events of 1915” by the Turkish government, which resists international pressure to acknowledge that it occurred to the (\*) Armenian population of the Ottoman Empire. In 1994, Rwanda suffered hundreds of thousands of deaths in, for ten points, what type of heinous, mass-scale killing of a group of people?**

ANSWER: genocide

(7) **In this author’s story “A Lamb to Slaughter,” Mary kills her husband with a leg of lamb and then feeds it to policemen. Formula 86 transforms children into mice in this author’s novel *The (\*) Witches*. This author also wrote about a telepathic, book-loving girl who confronts Miss Trunchbull, and about five children, including Augustus Gloop, who find golden tickets in chocolate bars. For ten points, name this author of *Matilda* and *Charlie and the Chocolate Factory*.**

ANSWER: Roald Dahl

(8) **This city launched an anti-aircraft barrage against nothing in February 1942, the day after a Japanese sub attacked Ellwood to the west. In this city in 1947, Elizabeth Short was found murdered; her unsolved investigation became known as the “Black Dahlia” case. The 1965 (\*) Watts Riots took place in this city, which hosted a surprisingly profitable Summer Olympics in 1984. Eric Garcetti is the mayor of, for ten points, what largest city in California?**

ANSWER: Los Angeles (accept LA)

(9) **In *The Silmarillion*, Nienor Niniel kills herself in this way after learning she has accidentally married her brother. Eustacia Vye kills herself in this way in Thomas Hardy’s *The Return of the Native*. In *The Sound and the Fury*, Quentin Compson uses this manner of suicide to die in the (\*) Charles River. In *Hamlet*, Ophelia falls from a willow tree before dying in, for ten points, what way, when she cannot get out of a “weeping brook?”**

ANSWER: drowning (accept word forms like being drowned; accept descriptions like jumping into a river; accept throwing herself or jumping into Cabed-en-Aras before “Eustacia” is read)

(10) **One of these events may have been predicted in 1975 in Haicheng, China. These events create a “shadow zone,” indicating that the Earth has a liquid outer core; the secondary waves created by these events do not reach the shadow zone, while their (\*) P-waves do. These events are focused at a hypocenter, an underground point that usually lies on a tectonic fault. Seismologists study, for ten points, what events that cause severe shaking on the ground?**

ANSWER: earthquakes

## Bonuses

(1) For ten points each, give the following about the Manhattan Project.

The Manhattan Project was developed by the United States to create this type of weapon, which was used to destroy the cities of Hiroshima and Nagasaki at the end of World War II.

ANSWER: atomic bomb (accept nuclear weapon, atom bomb, or other equivalents; prompt on “A-bomb”; do not accept or prompt on “hydrogen bomb”)

This physicist oversaw the creation of the first atomic bomb as director of Los Alamos Laboratory during the Manhattan Project.

ANSWER: Julius Robert Oppenheimer

Los Alamos Laboratory and White Sands Missile Range, the site of the first test of the atomic bomb, are located in this US state.

ANSWER: New Mexico

(2) Beginning in the 1890s, the Stratemeyer Syndicate produced the Bobbsey Twins books, as well as many other series of children’s mystery novels written by groups of writers working under pseudonyms. For ten points each,

Stratemeyer produced this book series under the name of fictional author Franklin W. Dixon. In this book series, Frank and Joe solve mysteries with the guidance of their private detective father, Fenton.

ANSWER: Hardy Boys

Following up on the success of the Hardy Boys, Stratemeyer used the pseudonym Carolyn Keene to produce novels about this iconic teenaged female detective, who first appeared in *The Secret of the Old Clock*.

ANSWER: Nancy Drew (accept either underlined name)

Both the Hardy Boys and Nancy Drew were edited in the 1950s and 60s to reduce the rampant racist stereotypes of the original books, and to remove references to the young Nancy carrying one of these weapons.

ANSWER: handgun (accept pistol)

(3) For ten points each, give the following about common medical suffixes.

The suffix “-phobia”, such as the spider-related arachnophobia, indicates this type of anxiety disorder.

ANSWER: fear (accept equivalents related to being scared)

The suffix “-oma” ([OH-ma], but also spell it), as in sarcoma or carcinoma, is used for this type of abnormal tissue growth. These masses may be biopsied to test for cancer.

ANSWER: tumors

The suffix “-itis” ([I-tis], but also spell it), as in appendicitis or tendonitis, indicates this type of immune response that often presents with pain, swelling, redness, and heat.

ANSWER: inflammation (accept word forms, like inflamed tissue)

(4) For ten points each, give the following about nineteenth century activist Henri Dunant.

Dunant was devastated by the gory aftermath of the Battle of Solferino in 1859 and helped start this international organization to care for wounded soldiers, as it appeared the armies themselves weren't interested in doing so.

ANSWER: International (Committee of the) **Red Cross**

A year after the Red Cross' first meeting, Dunant organized a conference where the first of these international agreements, requiring fair treatment of wounded soldiers and protection for medical personnel, was adopted.

ANSWER: **Geneva Conventions**

In 1901, Henri Dunant was honored for founding the Red Cross as the first recipient of this international award, which the Red Cross itself has won three times.

ANSWER: **Nobel Peace** Prize (prompt on "Nobel (Prize)")

(5) These facilities are determined by Congress based on their natural beauty, their suitability for tourism, and, unlike national monuments, without concern for historic status. For ten points each,

Name this type of facility, such as Sequoia and Yosemite in California, that is preserved by the government for public enjoyment.

ANSWER: **national parks**

This facility, mostly in northwestern Wyoming, was established as the first US national park in 1872. Old Faithful is one of the most popular tourist attractions in this park.

ANSWER: **Yellowstone** National Park

In 1832, well before the US government had created its concept of a national park, Congress preserved a region in this state that is now Hot Springs National Park. This state's other federally protected sites include the Pea Ridge National Military Park on its northern border and Central High School National Historic Site in its capital city.

ANSWER: **Arkansas**

(6) For ten points each, name the following instruments used in meteorology.

Mercury has been largely phased out of use in these instruments, which display Fahrenheit and/or Celsius scales to indicate the temperature.

ANSWER: **thermometers**

Atmospheric pressure is measured by these devices, which were invented by Evangelista Torricelli in the seventeenth century. Early examples of these devices used a column of mercury whose height was measured.

ANSWER: **barometers**

Wind speed is measured by these devices, named for the Greek wind for "wind." These devices commonly involve four cups on horizontally-spinning arms.

ANSWER: **anemometers**

(7) This ruler founded the Achaemenid [ah-KEE-men-id] Empire, which successfully grew by supporting local rulers as satraps and respecting local customs. For ten points each,

Name this “Great” Persian ruler of the sixth century BCE who ended the Babylonian Captivity.

ANSWER: Cyrus the Great (accept Cyrus II)

Cyrus built the capital city of Pasargadae [pass-ar-guh-die], whose surviving ancient monuments include this structure built for Cyrus. One of the Wonders of the Ancient World was one of these structures built at Halicarnassus for a fourth century BCE satrap named Mausolus, inspiring one name for these structures.

ANSWER: **tomb** (accept **mausoleum**; accept answers related to an above-ground **burial place**; do not accept or prompt on “pyramid”)

Cyrus conquered, among other regions, Lydia in what is now western Turkey. Lydia is historically considered the birthplace of this invention, which the Lydians created by stamping an alloy of gold and silver into small objects weighing roughly eight to ten grams.

ANSWER: coinage (prompt on “money”; do not accept “paper money”)

(8) In 1927, English composer Gustav Holst created *Egdon Heath*, a melancholy but enthralling tone poem written to evoke a passage from this author’s novel *The Return of the Native*. For ten points each,

Name this English author who wrote a poem about a creature who sings “a full-hearted evensong / of joy illimited” as well as the novels *Jude the Obscure* and *The Mayor of Casterbridge*.

ANSWER: Thomas Hardy

Hardy wrote about the “full-hearted evensong” of one of these animals in a poem titled for a “Darkling” one. Hardy wrote a protest poem about these animals’ use in vinkenzetting, a Dutch sport for which these animals were “blinded ere yet a-wing / by the red-hot needle.”

ANSWER: birds (accept The Darkling **Thrush**; accept **finches**)

In another of Hardy’s poems, a woman with this name laments the loss of her husband. In a novel by Hardy, a woman with this name is abandoned by her husband, Angel Clare, when she reveals that she was raped as a girl.

ANSWER: Tess (accept Tess of the d’Urbervilles; accept either underlined name of Tess Durbeyfield; accept Tess’s Lament)

(9) About eighty thousand metric tons of this material is currently circulating in the Great Pacific Garbage Patch. For ten points each,

Name this type of synthetic material. Polyethylene, used to make soda bottles, and polypropylene, used to make disposable utensils, are common types of this moldable material.

ANSWER: **plastics**

Plastic accumulates in the Garbage Patch because most plastics do not have this property, the ability to be broken down by bacteria or other microorganisms.

ANSWER: **biodegradable** (accept word forms)

The Garbage Patch contains objects made from this first synthetic plastic, patented in 1909, that was used make telephones, radios, and other household items.

ANSWER: **Bakelite**

(10) Sometimes it's easier to write about horrific events in a book populated by animals instead of humans. For ten points each,

Art Spiegelman's graphic novel *Maus* portrays Jews as mice and Nazis as cats while portraying Spiegelman's father's experiences in Auschwitz during this historical genocide.

ANSWER: **Holocaust**

George Orwell allegorized the Russian Revolution as a barnyard power struggle in this novel, simplifying events like the exile and murder of Leon Trotsky into the disappearance of the pig Snowball.

ANSWER: **Animal Farm**

In this brutal and bloody novel by Richard Adams, a group of rabbits leave Sandleford in the hopes of founding a new warren in the title location.

ANSWER: **Watership Down**