

# Nikola Tesla

Nikola Tesla was a philosopher, a poet, a physicist, an engineer, and an inventor. He spoke eight languages, had a photographic memory and a mind decades ahead of its time. Looking around us today, there is barely a device that functions without relying on one of his patents. Electric motors, radio transmissions, remote controls, wireless transmissions, and most importantly, alternating current (AC, still used today to bring electricity into our homes) were all invented by the same man. Tesla's inventions have modernized the world and earned him nicknames like the "Electrical Wizard" and the "Modern Prometheus".

Tesla was a Serbian-American born on July 10, 1856. He was famous for his eccentricity and brilliance, and later, for his role in the so-called War of the Currents fought against Thomas Edison. Alongside his benefactor, George Westinghouse, Tesla won the war and managed to make AC the world's primary source of electricity. This victory enabled Tesla and Westinghouse to engineer the first hydro-electric power plant at Niagara Falls using AC in 1896. Although AC power is what he is most famous for, at the time of his death Tesla held over 300 patents. One of his inventions was the Tesla coil, a device which can produce artificial lightning up to 41m long. The Tesla coil, in a much smaller form, is used today in TV and radio equipment, and many other electronic devices.

Among Tesla's other, lesser-known inventions is the remote control (1898) which he demonstrated by controlling a toy boat. He also invented neon lighting and experimented with X-rays years before Wilhelm Roentgen announced his discovery. Tesla harnessed the resonant frequency of the Earth and built an earthquake machine, lit 200 lamps from a distance of 40km and demonstrated short-distance radio communication two years before Guglielmo Marconi. After Marconi won the Nobel Prize, Tesla claimed Marconi had used 17 of his patents but didn't have enough money to prove it. Only after Tesla's death did the Supreme Court recognize four of Marconi's key patents actually belonged to Tesla.

Despite an array of revolutionary inventions, Tesla never managed to make much money. His last big project was the Wardenclyffe Tower on Long Island, which was built in 1901 thanks to an investment from J.P. Morgan. The Tower was supposed to provide free electricity and help "electrify the world". However, shortly after its construction, the investments were pulled and Tesla was once again left with nothing.

The remainder of his days Tesla spent moving from place to place before finally settling in the New Yorker Hotel where he spent the last years of his life. During that time he suffered a series of nervous breakdowns, and his inventions became increasingly bizarre. Tesla became obsessed with cleanliness and the number three, exhibited a strange affection towards pigeons and an even stranger phobia of pearls. Tesla died in his room in the New Yorker Hotel in 1943, at the age of 86, penniless and alone, without ever receiving the recognition he deserved.

## Vocab Match

Name: \_\_\_\_\_

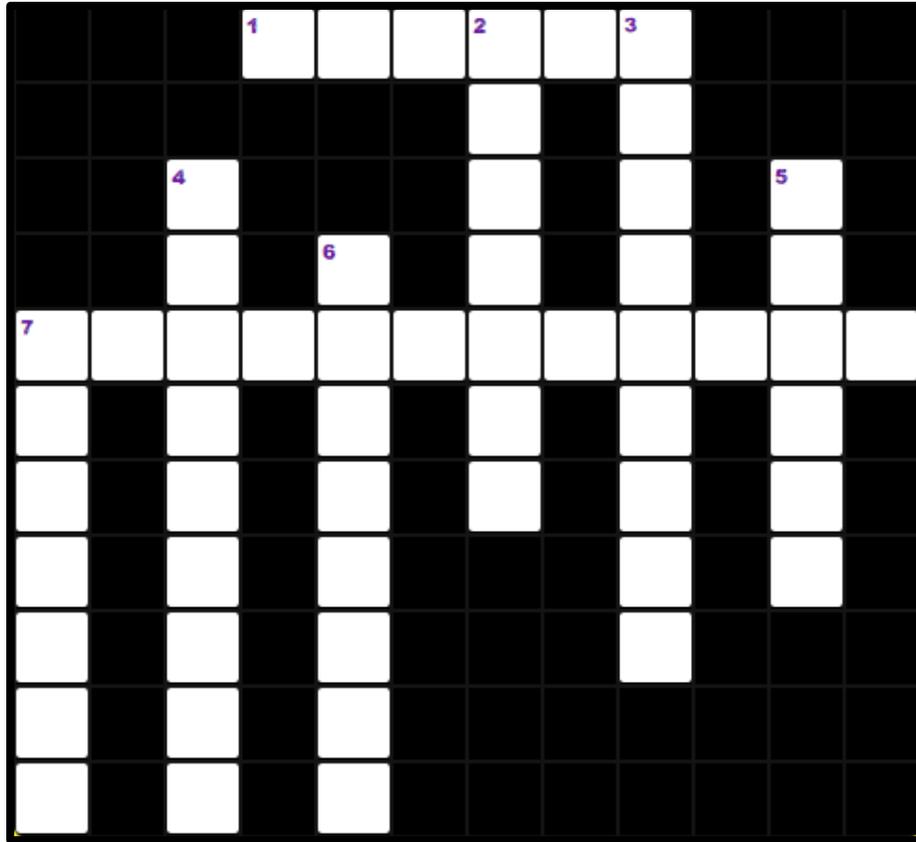
Word	Answer	Definition
1. patent	1. ____	a. verb- to acknowledge the validity of something
2. Prometheus	2. ____	b. noun- a mythical character who stole fire from Zeus and gave it to mankind
3. eccentricity	3. ____	c. verb- make known to the public
4. announce	4. ____	d. noun- an impressive and neat display
5. recognize	5. ____	e. adjective- very strange and unusual
6. array	6. ____	f. noun- a document securing a person's right to an invention
7. bizarre	7. ____	g. noun- fondness
8. exhibit	8. ____	h. noun- an irrational fear of something
9. affection	9. ____	i. verb- to show or display
10. phobia	10. ____	j. noun- strangeness

## Discussion Topics

1. What would you do if you couldn't use electricity anymore?
2. What would you like to invent?
3. Is there anything you are terribly afraid of?
4. Do you have any strange habits?
5. Are you superstitious? What are some famous superstitions in your country?

Name: \_\_\_\_\_

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Hint!

**ACROSS**

1 noun- an irrational fear of something

7 noun- strangeness

**DOWN**

2 adjective- very strange and unusual

3 noun- fondness

4 verb- to acknowledge the validity of something

5 noun- a document securing a person's right to an invention

6 verb- make known to the public

7 verb- to show or display

Name: \_\_\_\_\_

## **Quiz**

**1) How many languages did Nikola Tesla speak?**

a. 2 b. 4 c. 6 d. 8

**2) Which of these things did Tesla invent?**

a. touchscreen b. wireless transmission c. electricity d. motors

**3) What was one of Tesla's nicknames?**

a. Electrical Wizard b. Electronic Mage c. Electrical Sorcerer d. Modern Wizard

**4) In which war did Nikola Tesla participate?**

a. World War II b. Nine Years' War c. World War I d. War of the Currents

**5) Who was Tesla's rival in the war?**

a. J.P. Morgan b. George Westinghouse c. Thomas Edison d. Guglielmo Marconi

**6) Which of Tesla's inventions is the most famous?**

a. alternating current b. remote control c. neon lights d. radio communication

**7) How many patents did Tesla have?**

a. 300 b. a 230 c. 100 d. 57

**8) What was the Wardenclyffe Tower supposed to do?**

a. create earthquakes b. create free electricity c. create artificial lightning d. power his laboratory

**9) Which animals did Tesla particularly like?**

a. dogs b. parrots c. pigeons d. cats

**10) Where did Tesla die?**

a. in his house b. in a hospital c. 15 in a hotel room d. 15 in his mansion

# Key

Matching	Quiz
1. f	1. d
2. b	2. b
3. j	3. a
4. c	4. d
5. a	5. c
6. d	6. a
7. e	7. a
8. i	8. b
9. g	9. c
10. h	10. c

**PROJECT:** Students explain the origins and history of some superstitions around the world. For example: bad luck to step on a crack, to cut fingernails at night, to break a mirror, walk under a ladder, to spill salt, etc.

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Source: <https://www.smithsonianmag.com/innovation/extraordinary-life-nikola-tesla-180967758/>,

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<https://www.smithsonianmag.com/history/the-rise-and-fall-of-nikola-tesla-and-his-tower-11074324/>

<https://www.goalcast.com/2018/01/03/nikola-tesla-life-story/>