

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



## *Biographies: Isaac Newton!*



It is the year 1642 and life for Hannah Ayscough is difficult. The country is at war, the plague is a continuous threat, her husband dies of pneumonia, and she is left alone expecting a baby.

Although her home in Woolsthorpe, Lincolnshire, England, is peaceful, her sadness is so great that her baby is born premature on Christmas night. He's so tiny and weak that nobody thinks he can survive. Hannah named her newborn son, Isaac, after his father.

Against all odds, the weak child lived 84 years and became the most important scientist of all mankind: Isaac Newton!

Trying to support her child and find stability, Hannah remarries an Anglican pastor, Barnabas Smith. Her husband didn't want to raise his stepson. So, she made the hard decision to have her mother raise little Isaac.

Being separated from his mother was a traumatic experience for Isaac. He was a three-year-old boy who had never met his dad and felt that his stepfather hated him. This caused little Isaac to become shy and have many difficulties relating to others. Since he was also physically fragile, he didn't play with other children his age. He preferred spending his time writing, drawing, and building mechanical toys.



His early studies were in schools near the town, but he was not a good student. He was only doing well in mathematics, but he went from being a poor student to becoming the best.

While Isaac was being raised by his grandmother, Hannah had three children with Barnabas: Maria, Ana, and Benjamin. After only nine years of marriage, Hannah became a widow again and returned to the farm with her other children.

Isaac left school to help his mother with the farm work, but his head was always "in the clouds". Actually, the reason for his distraction was that he was focused on solving problems and building machines. They say he was so distracted, that once he was to cook an egg for dinner and instead of boiling the egg, he had boiled the watch.

Hannah did not understand Isaac's introverted and lonely temperament. Seeing that Isaac was not good at farm work, she decided to send him to study at Trinity College in Cambridge where he entered in 1661. There he met his namesake, Isaac Barrow, Cambridge's first math teacher. When Barrow saw Isaac Newton's interest in learning, he became his advisor and guided him with some of his great discoveries.

Newton had to leave his studies when the bubonic plague epidemic spread in Cambridge. He went back to his family. During the two years he was on the family farm, he conceived most of the theories that made him famous.

One summer afternoon, while he rested under an apple tree, an apple fell. Seeing what had happened, he figured there had to be something that would attract objects perpendicularly to the ground. After many observations and experiments on this phenomenon, he formulated the Law of Universal Gravitation.



Some say this is a legend, but in 2010, at the celebration of its 350th anniversary, the British Royal Society published an original manuscript that tells how Newton, seeing drop an apple, delved into the theory of gravity.

On one occasion, Newton was asked what it was that led him to discover the force of gravity and he replied, "A whole life of efforts."

Isaac Newton made many wonderful inventions and great discoveries, from the simplest to the most important and complex. Some of them are:

- discovering the Law of Universal Gravitation
- inventing the pendulum clock
- making a new type of telescope
- discovering the law that governs the tides
- discovering the three basic laws of movement
- demonstrating that white light is formed by rainbow colors



Newton never got married, but he loved animals and had several dogs and cats. To facilitate the entry and exit of his pets, it occurred to him to have a carpenter cut a hole in the bottom of the door and the first cat door was made. That small door that makes it easier for pets to come and go was his invention.

In 1696, Newton was made warden of the Royal Mint and was appointed president of the Royal British Society in 1703. He held that position until his death. In 1705, he was appointed Knight of the British Empire.

Sir Isaac Newton died in London on March 20, 1727. He became famous during his life, and scientists loved him. His death was mourned by the entire world. Even today, he is remembered with admiration. He was buried in Westminster Abbey amid the great men of England.



His mother, Hannah, was always a thrifty, hard-working woman. But she spent her life more concerned about the farm than about the academic and scientific triumphs of her son. Isaac loved her deeply. She died when he was 36 years old; perhaps, she never knew she had been the mother of a genius!

“La gravedad es una fuerza invisible que atrae las cosas hacia el centro de la Tierra. Sin ella, no podríamos mantenernos en pie. Cuanto mayor sea la masa de algo, más fuerte será la atracción que ejerce la gravedad hacia el centro de nuestro planeta.”

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

## ANSWER THE QUESTIONS

1. Hannah perhaps never knew Isaac was a genius because \_\_\_\_\_
  - a. she got married again.
  - b. she didn't pay any attention to what Isaac was doing.
  - c. she had three other children.
  - d. she was thrifty and hardworking.
  
2. The word namesake is used in the text. A namesake is someone who \_\_\_\_\_
  - a. knows a lot about math.
  - b. is a professor at the university.
  - c. has the same name as someone else.
  - d. loves technology.
  
3. What did Newton mean when he responded that what led him to discover the force of gravity was a lifetime of efforts?
  - a. Every discovery requires dedication.
  - b. You have to solve problems.
  - c. Being distracted produces a lot of work.
  - d. It is good to build devices.
  
4. In the text, the expression: "in the clouds" means \_\_\_\_\_
  - a. a. to look at the sky.
  - b. b. to think about the clouds.
  - c. c. to be distracted.
  - d. d. to solve problems.
  
5. Who was Hannah Ayscough?
  1. \_\_\_\_\_  
\_\_\_\_\_
  
6. Where and when was Isaac Newton born?  
\_\_\_\_\_

7. What activities did Isaac prefer instead of playing with other children?

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8. In your opinion, what was the most important event in Newton's life?

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9. What was Newton's temper like?

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10. If you had the opportunity to interview Newton, what would you ask him?

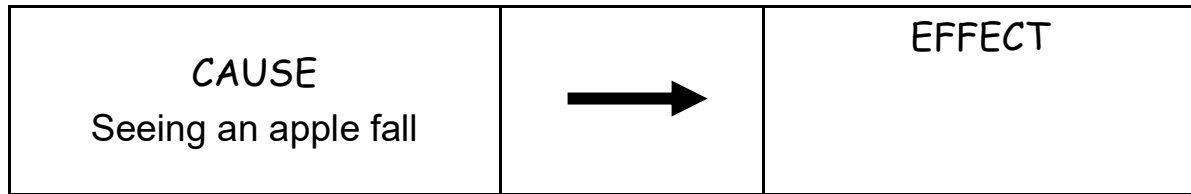
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| TRUE OR FALSE   | V | F |
|---|---|---|
| 11. When he was little, Newton played with other children.                |   |   |
| 12. Newton did not meet his father.                                       |   |   |
| 13. Isaac Newton is considered a great scientist.                         |   |   |
| 14. Hannah worried about knowing her son's inventions.                    |   |   |
| 15. Newton loved animals.   |   |   |
| 16. Gravity is the force that attracts things to the center of the earth. |   |   |

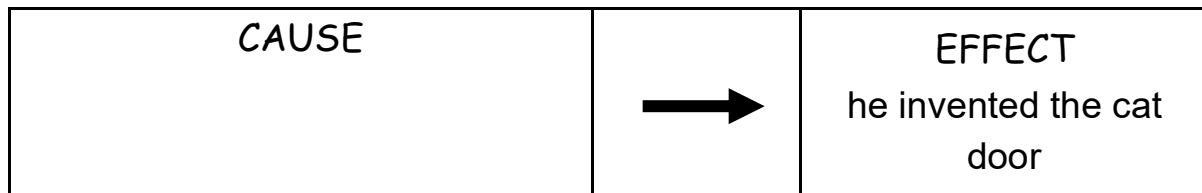
Look at the following diagram:



17. Choose which one completes the diagram:

- a. caused Newton to deepen the theory of gravity.
- b. made Newton become famous.
- c. made Newton invent the pendulum clock.
- d. made Newton named Knight of the British Empire.

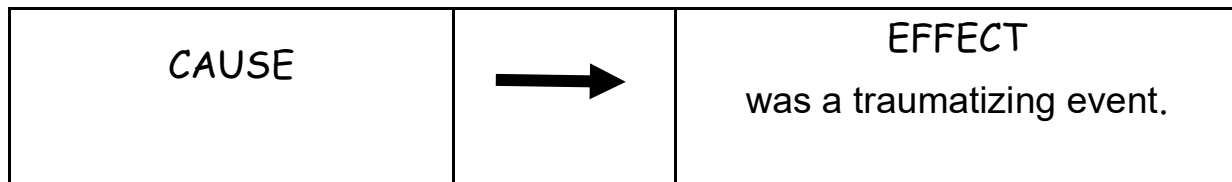
Look at the following diagram:



18. Choose which one completes the diagram:

- a. Because Isaac loved animals,
- b. To give the carpenter work,
- c. To facilitate the entry and exit of your pets,
- d. Because he had several dogs and cats,

Look at the following diagram:



19. Choose which one completes the diagram:

- a. Helping his mother with the farm work,
- b. The fall of an apple,
- c. Being separated from his mother at age three,
- d. Putting the watch in to cook instead of the egg,

**Investigate:**

Two discoveries of Newton that are different from those that appear in the text.

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What does the word premature mean?

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What is the difference between the words bake and sew?

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Explain this phrase from Newton.

"What we know is a drop of water; what we ignore is the ocean"

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