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Aristotle

An Observer of Nature

Born: 384 B.C. in Greece Lived to be 62 years old

Young Aristotle

Science did not begin yesterday. Scientific thinking goes far back, even to prerecorded history and primitive people. When a person in ancient times tied a rock to a stick to make a weapon, he was thinking scientifically. The first farmer to discover that placing certain seeds in the ground would give rise to an edible plant was a scientist. Long ago people looked up at the stars and kept records of their path through the sky—they were the first astronomers.

Aristotle was among the first scientists to carefully observe nature. He wrote more than 150 books detailing what he learned about plants, animals and nature.

Aristotle was born to a wealthy family. His father was a doctor who served royalty. Young Aristotle learned much when he went with his dad to help the sick.

His dad died when Aristotle was only 10 years old. Since his mother was also dead, he was sent to live with a guardian.

At 17 Aristotle attended a school in Athens led by a genius named Plato. Plato was the most famous philosopher of his time. Aristotle soon became Plato's best student. Plato called him the "intelligence" of the school.

Aristotle stayed at the school for 20 years. He later started his own school. Most of his lectures were given outdoors as he and his students walked through the gardens of Athens.

Later in life Aristotle became a tutor to a young prince. He must have done a great job. The young prince grew up to be Alexander the Great.

Charles Darwin, a scientist in the nineteenth century, wrote that most scientists are mere "schoolboys" compared to Aristotle. What do you think he meant?

Why Aristotle Was Famous

Aristotle was a philosopher who thought and wrote about the meaning of life. He wrote books on logical thinking. He taught many of the most important people of his time.

Aristotle was also a scientist. He carefully observed and wrote about all things in nature. His books stressed that observation was an important part of science.

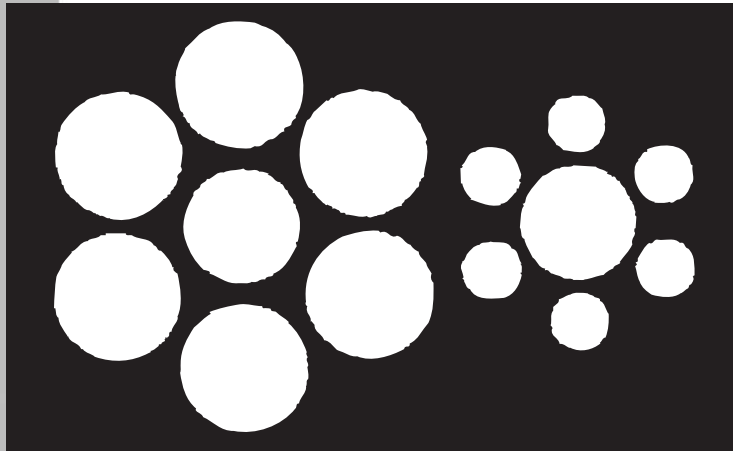
Aristotle did not have microscopes or telescopes. As a result he made many mistakes. His books are full of ideas that we now know are wrong such as:

1. Flies and worms are formed when fruit rots.
2. The only four elements in the world are earth, air, fire and water.
3. The job of the human brain is to cool off the body.

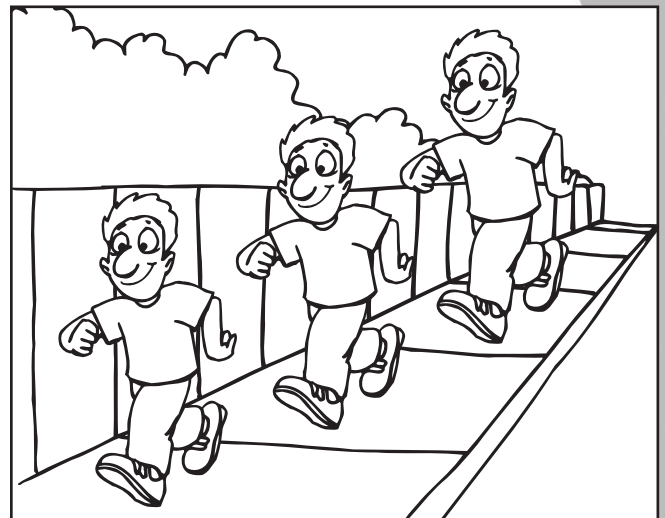
Aristotle's Favorite Experiments

Aristotle taught his students to observe carefully. Here are two optical illusions to challenge your observation power. Guess the answers, then measure to find out if you're right.

Which of the **center** circles is larger?



Which of the men is the tallest?



Aristotle taught logical thinking. Can you use your logical brain to solve the puzzles below?

1. What is the missing number in this series?
24 20 _____ 12 8 4
2. An archaeologist claims to have found a metal coin stamped 300 B.C. Why is this coin a fake?
3. A box is 10 feet long and 10 feet wide. It can hold 400 cubic feet. How deep is the box?

Observing a Nickel

There were metal coins in Aristotle's time. He would have been amazed at our common nickel. Let's observe a nickel carefully.

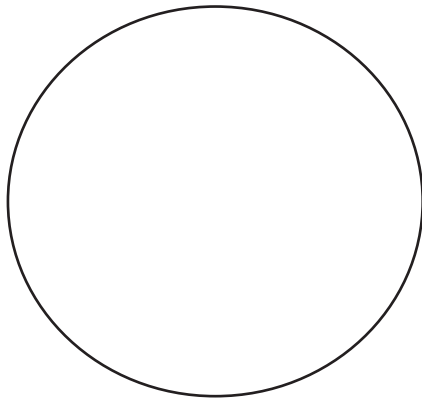
- Obtain some shiny nickels.
- Observe the face on the coin. It is Thomas Jefferson.
- Observe the building on the back of the coin. It is Jefferson's mansion. Notice the name of the mansion right under it.
- Hold the nickel so that Jefferson's face is pointing up. Turn the coin to observe the mansion. It is upside down.
- Look for the word *liberty* to the right of the face. Notice the date when the coin was made.
- Look below the date. You may see a D or S. This stands for the location of the mint that made the coin. D is for Denver. S is for San Francisco. Those nickels without a letter were made in Philadelphia.
- Look above the mansion. You will see *E Pluribus Unum*. This is Latin. It means "one among many." This reflects the joining of the original 13 states.

Nickel Note: Did you know that some nickels are very valuable? A 1913 liberty head nickel can be worth more than a million dollars.

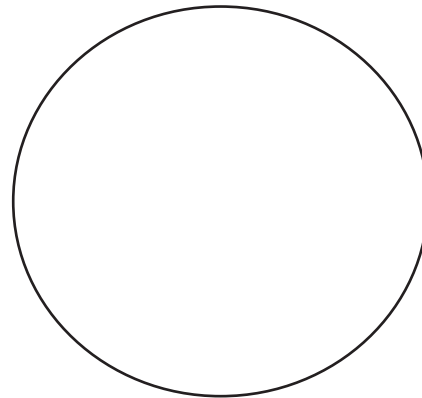


Observe and Draw

Sketch the two sides of a nickel. Look carefully, as if you were a student of Aristotle's. Show as many details as you can.



face



back side

Famous Quotes from Aristotle

Nature does nothing uselessly.

Well begun is half done.

Liars when they speak the truth are not believed.