

James Watson and Francis Crick

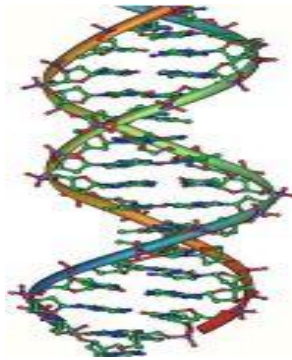
https://www.ducksters.com/biography/scientists/watson_and_crick.php



biographyjameswatsonandfranciscrick.mp3

- **Occupation:** Molecular biologists
- **Born:**
Crick: June 8, 1916
Watson: April 6, 1928
- **Died:**
Crick: July 28, 2004
Watson: Still alive
- **Best known for:** Discovering the structure of DNA

Biography:

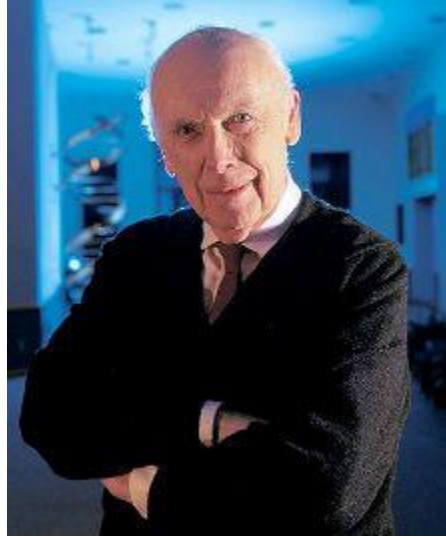


James Watson

James Watson was born on April 6, 1928 in Chicago, Illinois. He was a very intelligent child. He graduated high school early and attended the University of Chicago at the age of fifteen. James loved birds and initially studied ornithology (the study of birds) at college. He later changed his specialty to [genetics](#). In 1950, at the age of 22, Watson received his PhD in zoology from the University of Indiana.

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James D. Watson.

Source: National Institutes of Health

In 1951, Watson went to Cambridge, England to work in the Cavendish Laboratory in order to study the structure of DNA. There he met another scientist named Francis Crick. Watson and Crick found they had the same interests. They began working together. In 1953 they published the structure of the [DNA molecule](#). This discovery became one of the most important scientific discoveries of the 20th century.

Watson (along with Francis Crick, Rosalind Franklin, and Maurice Wilkins) was awarded the Nobel Prize in Physiology or Medicine in 1962 for the discovery of the DNA structure. He continued his research into genetics writing several textbooks as well as the bestselling book *The Double Helix* which chronicled the famous discovery.

Watson later served as director of the Cold Spring Harbor Lab in New York where he led groundbreaking research into [cancer](#). He also helped to form the Human Genome Project which mapped out the human genetic sequence.

Francis Crick

Francis Crick was born in Weston Favell, England on June 8, 1916. His father was a shoemaker, but Francis soon found a love for learning and science. He did well in school and attended the University College London. Crick had won several awards for his research when he met James Watson at the Cavendish Laboratory in Cambridge, England. They soon made their famous discovery of the DNA double helix in 1953.

After making the discovery and winning the Nobel Prize in 1962, Crick continued his research into genetics at Cambridge. He later worked as a research professor at the Salk Institute in California for many years. Crick died of colon cancer on July 28, 2004.

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Discovering the Structure of DNA

In the early 1950s, scientists had learned a lot about genetics, but they still didn't understand the structure of the DNA molecule. Scientists needed to understand the structure of DNA in order to fully understand genetics. The Cavendish Laboratory had put together a team to try and solve the problem before an American team led by the famous biochemist Linus Pauling could. It became a race to see who could figure it out first!

When Crick and Watson met at Cambridge they quickly learned that they had the same passion for solving the DNA structure. They both had similar ideas as well on how the problem could be solved. Despite having very different personalities, they became good friends and respected each other's work.



DNA model template used by Crick and Watson.

Source: Smithsonian. Photo by Ducksters.

Using stick-and-ball models, Watson and Crick tested their ideas of how the DNA molecule might fit together. Their first attempt in 1951 failed, but they kept at it. They also used information from [X-ray](#) pictures to give them ideas for the structure. Rosalind Franklin and Maurice Wilkins were two scientists that were experts in taking these pictures. Crick and Watson were able to gain some valuable information by studying pictures taken by Franklin and Wilkins.

In 1953, Crick and Watson were able to put together an accurate model of the DNA structure. The model used a twisting "double helix" shape. This model would help scientists throughout the world in learning more about genetics.

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Interesting Facts about James Watson and Francis Crick

- When Watson was a kid, he appeared as a contestant on the radio show Quiz Kids.
- Watson became the second person to make his genetic sequence available online.
- Both Crick and Watson had strong personalities. Crick was outgoing and boisterous. Watson was considered more reserved, but arrogant.
- Crick and Watson used Rosalind Franklin's images of the DNA molecule without her permission.
- Both Watson and Crick were inspired by the book *What Is Life?* by Austrian physicist Erwin Schrodinger.

Activities

Take a ten question [quiz](#) about this page.



Test Quiz

Questions on this quiz are based on information from [Watson and Crick](#).

1. Where was Francis Crick born?
 - a. California
 - b. Canada
 - c. Ireland
 - d. England
 - e. France
2. What subject did James Watson receive his PHD in at the age of 22?
 - a. Zoology
 - b. Physics
 - c. Botany
 - d. Biology
 - e. Chemistry

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3. What were James Watson and Francis Crick most known for?
 - a. Discovering a cure for cancer
 - b. Discovering that DNA exists
 - c. Discovering how atoms bond into molecules
 - d. Discovering the structure of the DNA molecule
 - e. Discovering the constant speed of light

4. What type of pictures did Watson and Crick use to give them ideas for their discovery?
 - a. Polaroid pictures
 - b. X-Ray pictures
 - c. MRI pictures
 - d. Ultrasound pictures
 - e. Molecular imaging pictures

5. What is the name of the twisting shape of the DNA molecule?
 - a. Deep Nitrogen Atom
 - b. Turning Ladder
 - c. Doubled Natural Apex
 - d. Twisted Strands of Life
 - e. Double Helix

6. How did Watson and Crick test their ideas on the structure of DNA?
 - a. They used sophisticated computer modeling
 - b. They used paper-mache models together with drawings
 - c. They used stick-and-ball models
 - d. They used Legos to model the shapes
 - e. All of the above

7. James Watson became the director of what biomedical lab in New York?
 - a. Cold Spring Harbor Lab
 - b. Institute of Biomedical Research
 - c. Los Alamos National Lab
 - d. Watson Research Lab
 - e. Oak Ridge National Lab

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8. Watson and Crick were part of a team of researchers at the Cavendish Laboratory located at what university?

- a. Massachusetts Institute of Technology
- b. University of Cambridge
- c. University of Illinois
- d. Georgia Institute of Technology
- e. University of Paris

9. The discovery of the structure of DNA was important to what field of science?

- a. Physics
- b. Robotics
- c. Meteorology
- d. Genetics
- e. Astronomy

10. True or False: Crick and Watson had very different personalities, but were able to work together to make a great scientific discovery.

- a. TRUE
- b. FALSE