

# STEPHEN HAWKING



**Stephen Hawking** was born in 1942 in Oxford, England. His father was a biologist, so young Stephen was exposed to science from an early age. Inspired by one of his mathematics teachers, Stephen wanted to study math in college. His father, however, wished his son to attend University College. The school had no mathematics program, so Stephen chose physics, the science of matter and energy.

He went on to Cambridge for his graduate degree. There, he studied cosmology, the science of the universe. At the age of 21, Hawking learned he had a muscular disease that weakens the muscles of the body, eventually causing paralysis. Despite this difficulty, Hawking was able to finish his PhD degree at Cambridge and go on to a long career in science.

Hawking is known for his studies of black holes, places in space that act like vacuums, sucking in any matter that gets close. Instead of using suction, a black hole attracts matter using gravity. A black hole is made when a star collapses. When a star collapses, it loses size, but gains more gravity. This is the gravity that pulls things into a black hole. It was once thought that all matter that enters a black hole is destroyed, but in 2004 Hawking announced that black holes may leak tiny amounts of matter and energy.

In addition to his work on black holes, Hawking has written many important books on space and the universe. His most popular book, *A Brief History of Time*, describes the science of space in ways even non-scientists can understand. With his daughter Lucy, Hawking wrote *George's Secret Key to the Universe*, a book that introduces kids to the science of space.

## VOCABULARY

*Look at the text and define these key concepts:*

Physics \_\_\_\_\_

Cosmology \_\_\_\_\_

Describe the steps to the creation of a black hole.

---

---

---

---

---

---

---

If you dropped a penny into a black hole, what do you think would happen to the penny?

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---