

SCIENCE IN PLAYS

AIM

To investigate the successful incorporation of science in plays.

HYPOTHESIS

A scientific topic can be sucessfully explored alongside an engaging and theatrical storyline.

METHOD

Read and research the storylines of *Copenhagen* by Michael Frayn, *Arcadia* by Tom Stoppard, *Proof* by David Auburn and *The Life of Galileo* by Bertolt Brecht.

RESULTS

The Life of Galileo by Bertolt Brecht

Galileo is told about the new invention of the telescope. He replicates it and uses the new invention to substantiate that the earth and the planets revolve around the sun, which goes against the belief of the church. Galileo also publishes his new theory in the language of the Venetian people, making the newfound knowledge accessible to the masses. He is brought to the Vatican and forced to renounce his teachings. Years later Galileo gives his findings in a book to an ex-student to smuggle out of Italy and educate the world.

Copenhagen by Michael Frayn

In *Copenhagen* the spirits of Werner Heisenberg, Niels Bohr and his wife Margrethe meet after their deaths in an attempt to discover what happened in a contentious meeting between Bohr and Heisenberg in Copenhagen in 1941. Bohr was a Danish physicist who laid

the foundations for understanding atomic structure and quantum theory that helped in the creation of the atomic bomb. The play enacts several versions of the meeting where nuclear power and its control is discussed, as well as the ramifications of building an atomic bomb as part of the Manhattan Project which was designed to end World War II.

Arcadia by Tom Stoppard

Arcadia is set in an English country house in the early 1800's and in the present day. The play portrays the life of Thomasina Coverly a teenager in the house during the 19th century who had mathematical knowledge well ahead of her time. Her life is juxtaposed with the story of a writer and a critic who comes to investigate past inhabitants of the house in the present day. Through their investigation the truth about Thomasina's life unfolds.

Proof by David Auburn

Proof tells the story of Catherine, the daughter of Robert, a recently deceased mathematical genius who suffered from mental illness. After her father's death, a groundbreaking mathematical theory is found in Robert's office. The Dramatic Action of the play concentrates on Catherine proving her father's ownership of the theory while struggling to avoid her father's footsteps of mathematical genius and mental illness.

CONCLUSION

Scientific theories explored in plays with engaging storylines allow science and drama to live successfully alongside one another on the stage as seen in some of the finest plays of the 20th century.