The physical world: quantum
The quantum revolution

Presenter – Robert Llewellyn: To be or not to be – that is the question. Or is it? Hamlet was supposed to have pondered life and death here at Elsinore Castle but Shakespeare's Prince of Denmark wasn't the only one to find inspiration on the nature of existence here.
Another great Dane really did walk these grounds as he struggled to understand the world, and he reached an extraordinary conclusion. There's 'to be' and there's 'not to be', but there's also something in between, 'maybe to be', an odd, mysterious uncertainty at the heart of nature, something that Albert Einstein fought for years to disprove. This is the story of the most spooky, strange and profound theory in Physics: quantum mechanics.

Neil Johnson - University Of Oxford: Without quantum mechanics, and without a knowledge of how to use quantum mechanics, there would be no mobile phones, no CD players, no computers; all of these rely on the properties of quantum mechanics.

Paul Davies - Visiting Professor - Imperial College London: Quantum mechanics as a mathematical description of the world is the most successful scientific theory we've ever had. There are no experiments that I know of that contradict the theory; it forces us to confront those deep issues of existence, and it's not just a matter of a mathematical recipe for describing the world.

Abraham Pais - Rockefeller University: It is the great revolution in science, greater in some sense than the relativity theory; you see the relativity theory was in the crown of the 19th century. Quantum mechanics is the crown of the 20th century.