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A BRIEF HISTORY OF TIME

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Introduction by Carl Sagan

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FROM THE BIG BANG TO BLACK HOLES

STEPHEN HAWKING

INTRODUCTION BY CARL SAGAN

ILLUSTRATIONS BY RON MILLER



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particles may sometimes behave like waves, and waves like particles (page 64).

wavelength: For a wave, the distance between two adjacent troughs or two adjacent crests.

weak force: The second weakest of the four fundamental forces, with a very short range. It affects all matter particles, but not force-carrying particles (page 78).

weight: The force exerted on a body by a gravitational field. It is proportional to, but not the same as, its mass.

white dwarf: A stable cold star, supported by the exclusion principle repulsion between electrons (page 92).

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Stephen Hawking was born in Oxford in 1942, exactly 300 years after the death of Galileo. He studied physics at Oxford University and went on to pursue his graduate studies at Cambridge. In his early twenties he was diagnosed as having Amyotrophic Lateral Sclerosis, known in the UK as Motor Neurone Disease. He holds Newton's chair as Lucasian Professor of Mathematics at Cambridge and is widely considered to be the greatest scientific thinker since Newton and Einstein. In 1989 he received an Honorary Doctor of Science degree from Cambridge University and was made a Companion of Honour.