



Pierre Simon Laplace

1749 - 1827

Laplace is considered one of the most prominent scientists since Newton; he contributed to the field of celestial mechanics, probability theory, applied mathematics and physics.

Pierre Simon Laplace was born in 1749 at Beaumont-en-Auge, in Normandy, France, the son of a local parish priest. When he was seven years old he was sent to a Benedictine school. Laplace entered Caen University for theological training but very soon he turned to mathematics.

Instead of taking his MA, Laplace went to Paris to meet the mathematician Jean d'Alambert, carrying with him a recommendation letter from his teacher. The legend tells that d'Alambert gave him problems to solve in a week, but Laplace solved them overnight. Apparently D'Alambert was so impressed by Laplace's ability that he found him a job at the Military School, where Laplace taught for several years.

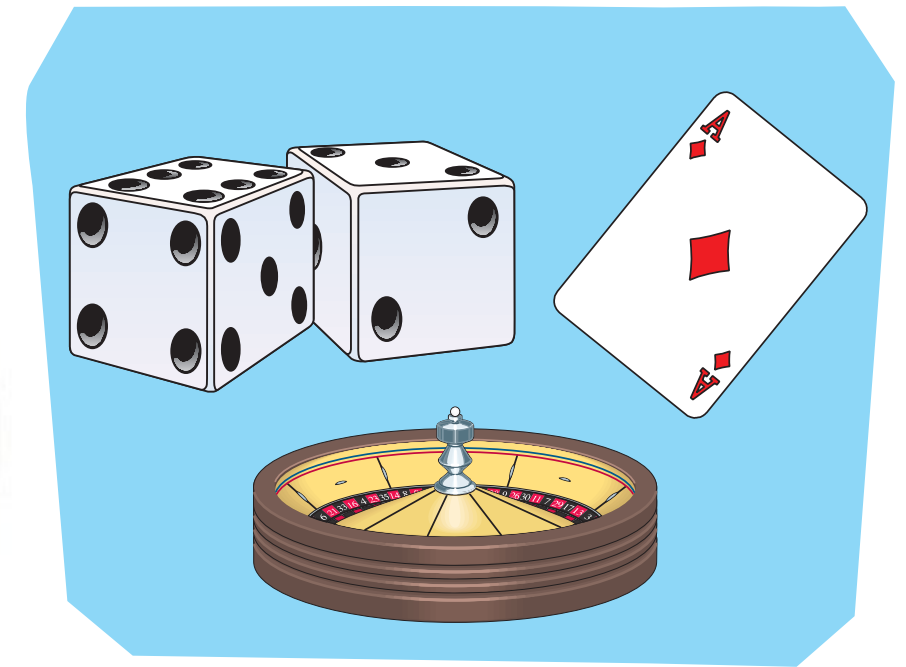
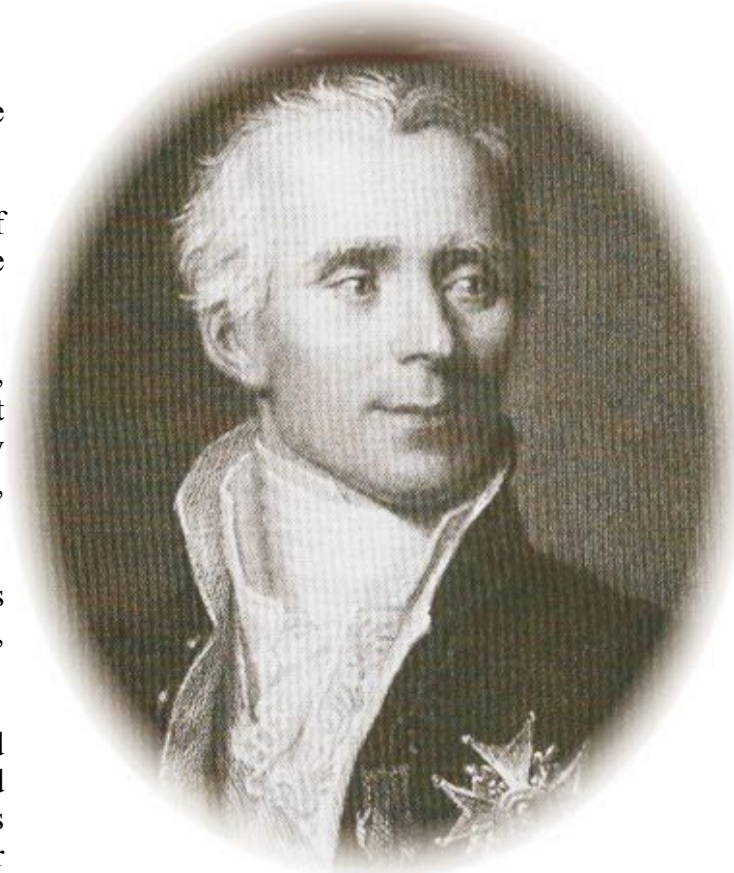
From then on Laplace lived in Paris, occupying a number of official posts and writing numerous papers on astronomy and mathematics. Laplace was elected to the Academy of Sciences in 1773, at the age of 24.

By examining the shrinking orbit of Jupiter and the expanding orbit of Saturn, Laplace showed that the orbits are self-correcting and that the mean motion of planets is stable. He also explained the acceleration of the Moon in its rotation around the Earth. He proposed in one of his works that the Sun and planets were formed from a rotating disk of gas; modified forms of this nebular hypothesis are still acceptable.



Seen from Voyager

*He studied
the shrinking
orbit of Jupiter*



*Laplace developed
game theory*

In mathematics he developed the theory of probability, statistical inference and game theory. In physics he developed the concept of a 'potential' and its description by the Laplace equation. In his writing he became known for the use of the phrase 'it is easy to see' by which he skipped steps in his explanations, confounding some of his readers.

From 1799 to 1825, Laplace produced his monumental five-volume book: the *Treatise on Celestial Mechanics*. It is said that once looking through his book Napoleon noticed that Laplace's theory did not mention God as the creator of the universe - Laplace answered, 'Sir, I do not need that hypothesis'.

Throughout the dangerous years of the French Revolution, during Napoleon's rule and the restoration of the Bourbons, Laplace managed to survive and prosper. Napoleon appointed him as Minister of the Interior, but shortly afterwards elevated him to the Senate. Nevertheless, Laplace voted for the overthrow of Napoleon in 1814, supporting Louis XVIII instead. After the restoration of the Bourbons, he was made a Marquis.

He married a woman twenty years younger than him, and they had two children, a son and a daughter.

Although a great scientist, Laplace seems to have been a man who changed his politics to suit circumstances. He was not very modest and he made it clear to everyone that he had an acute mind. He was quite healthy and vigorous until the end. He died at the age of 78 after a short illness.