## Higgs Boson - Animated Explanation



The "Higgs Boson" is often "in the news."

- On the 4th of July, 2012, scientists at CERN in Europe announced they *may* have found this particle following a collision in the Large Hadron Collider (LHC) near Geneva.
- On the 14th of March, 2013, CERN announced that the particle discovered the previous summer is "<u>looking</u> more and more like a Higgs boson..."
- On the 8th of October, 2013, the <u>Nobel-Prize</u> Committee announced that <u>Dr. Peter Higgs and Dr. Francois</u> <u>Englert</u> would <u>share the Nobel Prize in Physics</u> for their work on the "Higgs Boson" particle.

What, exactly, is the "Higgs Boson" - and - <u>why do we care about it</u>? This video, narrated by <u>Professor Daniel Whiteson</u>, uses an animated explanation (by <u>Jorge Cham</u>) to answer both of those questions. Move the video to 0:36 to see the animation.

For a deeper explanation of the Higgs Boson - and the "Standard Model" on which it is based - have a look at this <u>illustrated guide</u> from "Particle Adventure" (produced by <u>Berkeley National Laboratory</u>).

Professor Stephen Hawking also provides a bit more <u>background on Higgs-Boson</u> (and its significance):

In the early 60s, theorists were struggling to understand why particles have mass. Peter Higgs and Francois Englert proposed a mechanism called symmetry breaking. This mechanism also predicted a massive particle, the Higgs boson. The discovery last year at Cern of a particle with the correct properties confirms this prediction and is a triumph for theory.

Following the Higgs-Boson announcement, in March of 2013, scientists publicly wondered whether the recent particle discovery will aid in the <u>search for "dark matter."</u> For a quick overview of "<u>dark matter</u>," see another illustration from "<u>Particle Adventure</u>."

## See. also:

## Namesake (and background) of "Boson" Particles

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