

Global View - Big Bang Theory (C0094)

A: What's up? You don't look too good.

B: Yeah, my head hurts, that's all. I've been in physics class all day. It's killer!

A: I liked physics. It's all math, really; arcs, curves, velocity, cool stuff.

B: Yeah, yeah, but today's lesson was all about the creation of the universe.

A: A physics class about the creation of the universe? That's some pretty unscientific language there. Sounds more religious to me.

B: It's all religion. Take the theory of the Big Bang. How is it possible that all of the stuff in the universe comes from an explosion? That's no better than Atlas carrying the globe on his back or African myths about turtles and stuff.

A: Turtles? Whatever... Look, all that's required for the creation of matter an imbalance of particles and anti-particles. At least, that's what the math says.

B: Math, shmath. What's the evidence?

A: There is evidence! You know Edwin Hubble? He's the guy who in the early twentieth century was the first scientist to measure the drift of matter in the universe, thus advancing notions of an expanding universe. What would it be expanding from? Well, the Big Bang... DUH!

B: Anyway, it's just a theory. Why do people go around touting theories? Where's the scientific rigor in that?

A: Dude, don't equivocate. A theory only becomes a theory after withstanding rigorous testing. You slept through class, didn't you?

B: Agh! You're making my head hurt again! Quit with the questions!

Key Vocabulary

what's up	<i>phrase</i>	what is happening
killer	<i>common noun, singular</i>	Something that is extremely difficult to deal with or withstand
theory	<i>common noun, singular</i>	a set of statements or principles devised to explain a group of facts or phenomena
Big Bang		the theory that a cosmic explosion caused the origin of the universe
matter	<i>common noun, non-variable</i>	the substance of which something, is made; material

imbalance	<i>common noun, singular</i>	the situation where there is an unequal amount of different things
particle	<i>common noun, plural</i>	any one tiny part of matter
anti-particle	<i>common noun, plural</i>	a particle that has the same mass as another particle but has opposite values for its other properties
notion	<i>common noun, plural</i>	ideas or concepts
rigor	<i>common noun, non-variable</i>	the state of something being very exact
equivocate	<i>verb</i>	use vague language so as to deceive someone
withstand		surviving a difficult experience or trouble

Supplementary Vocabulary

astronomy	<i>common noun, sin- gular</i>	The scientific study of matter in outer space, especially the positions, dimensions, distribution, motion, composition, energy, and evolution of celestial bodies and phenomena
black hole	<i>common noun, sin- gular</i>	a region of space resulting from the collapse of a star with extremely high gravitational field
white dwarf	<i>common noun, sin- gular</i>	a small, faint, very dense star
entropy	<i>common noun, sin- gular</i>	The tendency for all matter and energy in the universe to evolve toward a state of inert uniformity

singularity

*common
noun, sin-
gular*

A point of infinite density and infinitesimal volume, at which space and time become infinitely distorted according to the theory of General Relativity

paradox

*common
noun, sin-
gular*

A seemingly contradictory statement that may nonetheless be true