

## The Origins of The Universe Study Guide

1. What are telescopes? Why do they help us see the past?
2. How far away is the Big Dipper?
3. The present is often affected by the events of the past. How are the locations of the skyscrapers of NY determined by the past?
4. What are the 3 basic subatomic particles? What are their properties?
5. What are the four fundamental forces? What is the range for each, what particles carry each? Describe these (many places in the video).
6. What are colliders? How do they work?

7. What is CERN, FermiLab? What do they do?

8. The first recorded discussion of forces involved Plato and Aristotle with the ideas of gravity and levity. Explain these concepts.

9. How has religion influenced science?

10. What is the “Expansion of the Universe”? How do we know it is expanding?

11. What is the Big Bang?

12. What is a light cone?

Briefly Describe each person:

Galileo Galilei

Issac Newton

Enrico Fermi

James Clark Maxwell

Ernest T. Rutherford

Albert Einstein

Stephen Hawking