The Universe: Season Two: Dark Matter

Elusive Dark Matter
Does dark matter interact with light?

What is the Minnesota connection with dark matter? What does this laboratory do?

What was Edwin Hubble’s big discovery?

What is the problem that first indicated (1933) that dark matter exists?

How do we know that there must be dark matter?

What is the method by which we detect dark matter?

The Search for Wimps
What is a W.I.M.P.?

How does the CDMS at Soudan Mine work?

Backbone of the Visible World
Can we ever find the point where the Big Bang began?

Why do we refer to dark matter as the "backbone" of the Universe?

What percentage of the Universe is dark matter? _________ visible matter?___________

Creating Space
How did Hubble use the Dobbler effect to measure the movement of galaxies?

If you are looking back in time, what are you looking at?

What is a standard candle?

Is the universe’s expansion slowing down or speeding up? __________ Why?

How do we know that there must be dark matter?

How does dark energy create space?

When were dark matter and dark energy created?

When did the universe’s expansion start to accelerate? At _________ billion years. (the universe is about 13.7 billion years old)

Mysteries of the Dark Side
What is Einstein’s cosmological constant?

If exponential expansion occurs, what is the fate of the universe?

What is dark energy?