EXTRA CREDIT

REVIEWS OF ASTRONOMY 5 VIDEOS PRESENTED IN LIBRARY

For the actual dates that each week starts, see the *General Schedule of Activities*

Week #	***Title and Review***
3	"Newton's Dark Secrets": Besides revealing his secretive and vindictive personality, this video shows how Sir Isaac Newton made the bold intellectual leaps that transformed science, such as the universal law of gravitation. The video presents Newton's little-known quests to discover hidden meanings in the Bible and to pursue alchemy – the changing of base metals into gold. With these lively glimpses of a brilliant and obsessive mind, the video explores how Newton became the giant on whose shoulders all later scientists would find a place to stand.
4	"The Astronomers - Where is the Rest of the Universe": Astronomers believe the Universe contains at least ten times as much mass as can be seen and accounted for. How they are able to detect this missing mass and to discover more about it are the subjects of this episode.
5	"The Astronomers - Searching for Black Holes": At the center of galaxy NGC 1275 - some 200 million light years from Earth - there might be a supermassive black hole, one of the most intriguing objects in the Universe. This episode is centered around astronomers' attempts to map the galaxy and look deep into its heart through the use of a very large radio telescope.
6	"The Astronomers - A Window to Creation": One of the biggest questions ever asked is: "How did the Universe begin?" How did the chaos which astronomers call "The Big Bang" give birth to galaxies with billions of stars? In search of an answer, this video follows the scientists who are attempting to sort through the remnants of the big bang for evidence which still lingers after 15 billion years.
7	"The Astronomers - Waves of the Future": Gravity waves, as yet undetected but predicted by Albert Einstein, may contain the answers to many questions about the Universe. This video centers around the scientists who are building gravity-wave detectors in an attempt to prove whether or not gravity waves exist.
8	"The Astronomers - Stardust": The deaths of stars allow our own lives to come into being. This episode explains how and looks at the complete life cycle of the stars that make up our galaxy.
9	"The Astronomers - Prospecting for Planets": Although many scientists are convinced that other planetary systems exist, so far none have been found with absolute certainty. This program focuses on efforts to discover other systems and learn more about our own solar system.

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Week #	***Title and Review***
10	"Stephen Hawking's Universe - Seeing is Believing": Today we take for granted many things about the Universe - that the Earth is round, that we orbit the Sun. But these things are not obvious - our knowledge today is built on the foundation laid down by thousands of years of scientific inquiry and ingenuity. This program explores mathematics and how it revolutionized our view of the Universe.
11	"Stephen Hawking's Universe - The Big Bang": Our Sun at the center of our Solar System is just one star among billions in the Milky Way galaxy. Around us are billions and billions of other galaxies. Where could this entire Universe come from? Was it always this way or did the Universe have a beginning? This episode explores both the scientific and religious answers to these questions.
12	"Stephen Hawking's Universe - Cosmic Alchemy": In the beginning, the Universe started as a single point. Yet from this tiny beginning came all the matter that we can see around today. How could pure energy become matter? This episode explores the answer to this question as it relates to observations made over the past century.
13	"Stephen Hawking's Universe - On the Dark Side": When we gaze up at the nighttime sky, we see the shining stars in the blackness of space. But is the space empty? In the 1950's, Vera Rubin, a young American scientist discovered an unexpected answer to this question. This program explores the details and consequences of this discovery.
14	"Stephen Hawking's Universe - Black Holes and Beyond": The invention of radio astronomy over 50 years ago opened new horizons for astronomers. This episode discusses the wide range of investigations and discoveries that has ensued, from the search for extraterrestrial intelligence to investigations of bizarre objects such as quasar.
15	"Stephen Hawking's Universe - An Answer to Everything": Over the last hundred years our understanding of the Universe has advanced farther than in previous centuries. We now know the Universe had a beginning and how all matter formed, but there is still one outstanding question - how did the Big Bang begin? Stephen Hawking is joined by other leading scientists as they try to answer this most important question.