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EarthComm Earth System Evolution: Astronomy and Your Community Activity 1

This investigation will help you to:

- Distances in the Universe
- The Nebular Theory
- The Birth of the Planets
- Milk Way Images
- To learn more about solar-system walks, visit the following web sites:
- To learn more about the five stars nearest to the Sun, visit the following web sites:
- To learn more about nuclear fusion, visit the following web sites:
- To learn more about star-forming nebulae in the galaxy, visit the following web sites:

Distances in the Universe

- Astronomical Unit (AU), Near Earth Object Program, NASA
 Find out a little more about the Astronomical Unit.
- What is a light year and how is it used? Starchild, NASA

 This description is similar to the text in EarthComm but also offers links to other relevant pages.
- If a Millimeter Were a Year/Light-Year

 Comprehending a distance as great as a light year is difficult. This brief essay puts the light-year in perspective by comparing it to a millimeter.

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The Nebular Theory

- The Nebular Theory of Solar System Formation, Hawaii
 This comprehensive site has an easy to use flow chart of the formation of the Solar System. There is also a pictoral slide show and answers to frequently asked questions.
- The Solar Nebular Hypothesis, Dept. of Physics and Astronomy, University of Tennessee Read an approximate chronology of the formation of the solar system and see pictures to go along with some of the phases.

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The Birth of the Planets

- Birth of a Solar System? CNN
 This is a report from a 1998 discovery by scientists at the Jet Propulsion Laboratory that provided some new information about how planets form.
- The Solar System, NASA

Learn some more trivia about the galaxy and our place in it.

• The Milky Way and other Galaxies, Ask a Space Scientist - Goddard Space Flight Center Find out answers to 90 different questions about our galaxy and others.

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Milk Way Images

- Multiwave Astronomy, NASA's Infrared Astrophysics Data Center
- · Astronomy Pictures of the Day: Milky Way Galaxy, Goddard Space Flight Center

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To learn more about solar-system walks, visit the following web sites:

- Build a Solar System Walk, Exploratorium
 - Make a scale model of the Solar System and learn the REAL definition of "space."
- Voyage: A Journey Through the Solar System along the National Mall in Washington DC
 Planning a visit to the nation's capital? If so, check out the scale model of the solar system along the National Mall. For more information, read this article about the new exhibit in the October issue of Smithsonian magazine.

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To learn more about the five stars nearest to the Sun, visit the following web sites:

- The 26 Nearest Stars to Earth, University of Wisconsin
- Closest Stars Model

This page gives you the relative distance of the nearest stars and help with how to make a scale model.

• Table of Earth's nearest stars

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To learn more about nuclear fusion, visit the following web sites:

- Fusion Basics
 - Get started learning about fusion with this brief description of how fusion works.
- How EINSTEIN Arrived at E=MC2 Mort Orman, M.D

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To learn more about star-forming nebulae in the galaxy, visit the following web sites:

- The Hubble Project
- Hubble Site
- European Southern Observatory
- Stellar Nurseries, University of Illlinois

Read about the birth of stars.

• Early Star Formation

Read a brief article about what scientists understand about star formation.

• A Star is Born

Take a virtual tour though the life of a young star.

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