

ASTRONOMY-TO-GO

The John J. McCarthy Observatory

LESSON: Our Solar System in the Galaxy **(6)**

CURRICULUM: Could be adapted for 5-6 grade as well as high school level

GUEST INSTRUCTOR: Bob Lambert

TIME: 40 minutes

LOCATION: Sarah Noble Planetarium, or a classroom

TEACHING AIDS: Partiview (using real data from current celestial surveys) program, JJMO laptop computer and projector.

DESCRIPTION: Lecture using visualization on the screen, of a tour from the solar system to the galaxy as viewed from deep space, with the solar system's place in the galaxy graphically depicted throughout the tour.

The session would start with the Partiview simulator visualizing the plane of our sun relative to the galactic plane. The concept of where we are in this very flat plane would be demonstrated. Following this, the students are taken on a tour through the galaxy and beyond to view back to our home.

The scale of the solar system would next be shown, to the extremity of the Oort cloud.

Further navigation would take students to nearby stars with known planets orbiting them. The remainder of the tour would take the class ever further out, looking back to show our location in the galaxy at ever-greater scales, ending with looking back at a very small, rotating spiral galaxy with many kinds of objects. Students will gain appreciation of the enormous scale of distance in our galaxy, as well as our location relative to the large framework of the galaxy

ASSESSMENT: Q&A as time permits, and a quiz of top 5 concepts

Revised 2/2014