#### Bridging Q's

#### Day 2

**Goals:** As a result of today's teaching you should be able to describe the solar system, the universe, the sun/earth system of energy and issues of heat and the earth.

## Breakfast: Earth's age is 4.6 by

What is time?

*How much is a long time?* 

*Is the relation of sun and earth permanent?* 

Why does the realization of a long time scale matter?

# Sundial spot

*How do we know that earth rotates, rather than the sun moving?* 

How do we distinguish planets from stars?

Can you describe how the sun moves in the sky?

What causes seasons?

What difference does topography make for sun and earth interactions?

### Ski hill facing sun

How are the Houghton and Hancock environments different because of how they are related to the sun?

What do really long distances and times add to our understanding?

Why should we care about stars and planets?

The sun gives us heat--are there any other celestial bodies that really influence earth? How?

Why should man go to Mars?

#### **Astronomy Lecture**

Besides the sun, how does earth get heat?

Why do some mines get so hot as you go down?

Why is the earth's core partly molten? How do we know this is the case?

What does radioactive mean? Is the whole earth radioactive? Are our own bodies radioactive?

How does the radioactivity of rocks affect our health?

## **Mineral Museum**

How will the sundial be different in winter?

What function would a sundial perform in a schoolyard or public park?

How does a sundial teach people?

# Sundial again

*How does the sun heat a shoreline?* 

*How does the sun lead to wind?* 

What does air weigh? How do we measure it?

# **Houghton Breakers**