Meeting 1: What is science?


See the above readings. Be prepared to discuss "What is science?" Or perhaps it is easier to ask "What is not science?" Is motorcycle repair science? Could someone use the same tools as you do, but NOT be doing science? If so, how would we know? Does your discipline define science in the same way as other disciplines in the natural sciences? In preparation for discussion, try to develop a metaphor for the process of science. For example, Pirsig compares science to motorcycle maintenance and Forscher compares it to building edifices from bricks. Craig Loehle has written that good science is like a boy leading a water buffalo by its nose ring (because it provides a point of leverage on the problem). We will give you a chance to describe your metaphor to the rest of us. Be able to briefly describe a favorite example from your discipline of effective scientific endeavor.

Supplemental Reading

Can robots do science? "The [robot] automatically originates hypotheses to explain observations, devises experiments to test these hypotheses, physically runs the experiments using a laboratory robot, interprets the results to falsify hypotheses inconsistent with the data, and then repeats the cycle." "No difference was found between the laboratory bench results generated by the robot scientist and those gathered by graduate students doing similar work, the researchers report"


See reverse side for a place to make notes for your thought assignments.
A metaphor for doing science:

An illustrative example from your discipline of scientific endeavor: