

**The name of this student text is
Exploring Cratering**

Cratering is a something that nearly all people have at least a couple of ideas about. Most everyone has thrown an object into soft mud, snow or sand and observed the hole or crater left by the impact.

In this activity you will explore your own ideas about how that crater was formed. As you begin you will be looking for patterns in the data gathered to see if it supports your ideas about how craters are formed.

Going through this activity, you will carry out one way that a scientific inquiry might be done. To begin, everyone in the class will brainstorm to come up with factors that might influence crater size.

After you come up with ideas about cratering, you will do some initial experimenting and exploration by creating a simple experiment to test one or two of your ideas.

After analyzing the data for patterns that might be used to predict crater size from the variables you used, you will next perform systematic experimentation using a specific set of impactors.

As you perform your experiments, think of the advantages and limits of scientific modeling as they compare to your own low energy simulations, the work

of Deep Impact Science Team cratering experts, and cratering on a Solar System scale.

Before you start the activity, it would be a good idea to review the “The Process of Crater Formation” and “Variables involved in Cratering” Student Texts that you read as part of the section on *Cratering in the Solar System*.