



Make a Comet Model and Eat It!

Instructor Page



Created for the Deep Impact Mission, A NASA Discovery Mission
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The "Make a Comet and Eat it" activity can be used with a wide age range. Younger students will come away with three important ideas: Comets are cold, they have debris from the early solar system and we still aren't exactly sure what is in them or how they behave. Older students will be able to discuss their own theories about what we will find out about Comet Tempel 1 when we dig deep inside it in July 2005. They can compare their current theories with our results.

The Activity:

"Make a Comet and Eat it!" - The activity

"Make a Comet and Eat it!" - Student Data Sheet - The student work sheet

Background material:

Consider This - This page shows the history of perceptions about comets.

A Comet's Place in the Solar System - A little history about where comets came from

Ten Important Comet Facts - A quick review of comet facts

C-O-M-E-T-S - A comet acrostic. Good for younger students or comet quick fact reference

Deep Impact - Interesting Mission Facts - Some fun facts about our mission

Small Bodies Missions - Learn more about Deep Impact and about other missions to comets and asteroids.

Want to know more about the chemistry of this activity?

The Chemistry of Ice Cream - Learn more about the chemistry of ice cream and how it freezes.

Building a Butterfat Molecule - Gum drops and toothpicks are all you'll need for this one.

National Science Education Standards related to this activity:

Thematic Organizing Standards:

- Personal Social Connection
- Nature and History of Science
- Unifying Concepts and Processes

Curriculum Content Standards:

- Size, Scale and Properties of Solar System Objects
- Energy-Nature of and Properties

Classroom Management:

- A. Materials need to be purchased fresh and kept in store-bought containers. Anything that is used to measure, hold or eat with/out of should never have been used for any classroom chemical storage.
- B. A mop and sponge is very helpful for desks or floor areas where measuring is done. You may choose to pre-load cream bags and salt bags at home.
- C. The ice needs to be either freshly bought or well frozen in storage. The container for transporting and storing the ice should be pre-cooled if possible or very efficient. If the ice has "warmed", it will be difficult to get the milk/cream to solidify.

Questions: Maura Rountree-Brown at Maura.Rountree-Brown@jpl.nasa.gov