

**Dynamic Design:
A Collection Process**

**It Began with Apollo
A Brief History of Solar Wind Sample Return**

TEACHER GUIDE: POWERPOINT PRESENTATION

BACKGROUND INFORMATION

The PowerPoint presentations that are provided as Genesis educational technology applications should be used as a supplement to the student texts from which they were derived. They offer an alternative way of assisting student learning of information contained in the text.

In constructing PowerPoint presentations, adding too much text to the slide is not visually pleasing to the student. Because sharing slide notes is vital for complete understanding of the concepts, notes are provided for the teacher. Therefore it is important to read and print out the slides and the teacher talking points that accompany them.

While showing the slides to your students, we encourage you to use the teacher talking points that accompany the slides. Ask the students to consider the graphics that are on each slide. The images and graphs that accompany the text will generate questions that can be explored further, either in the student text itself or with additional research.

NATIONAL SCIENCE STANDARDS ADDRESSED

Teaching Standards

Teaching Standard A: Teachers of science plan an inquiry-based science program for their students

- Select science content and adapt and design curricula to meet the interests, knowledge, understanding, abilities and experiences of students.
- Select teaching and assessment strategies that support the development of student understanding and nurture a community of science learners.

Teaching Standard B: Teachers of science guide and facilitate learning

- Focus and support inquiries while interacting with students.
- Orchestrate discourse among students about scientific ideas.
- Encourage and model the skills of scientific inquiry, as well as the curiosity, openness to new ideas, and skepticism that characterize science.

Teaching Standard D: Teachers of science design and manage learning environments that provide students with the time, space, and resources needed for learning science

- Create a setting for student work that is flexible and supportive of science inquiry.
- Make the available science tools materials, media, and technological resources accessible to students.

Content Standards

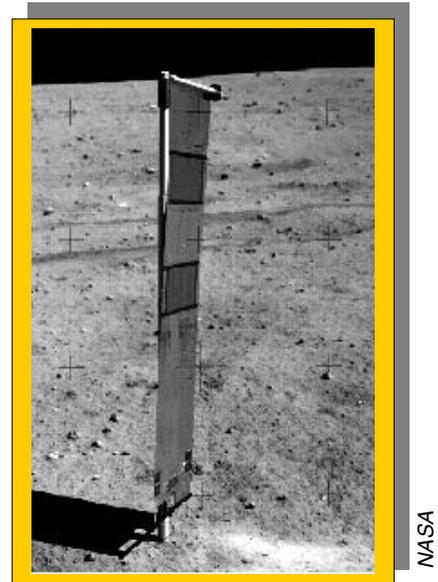
Grades 5-8

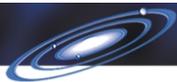
Science and Technology

Understandings about science and technology

History and Nature of Science

History of Science



**Grades 9-12**[Science and Technology](#)

Understandings about science and technology

[History and Nature of Science](#)

Science as a human endeavor

Nature of science and scientific knowledge

History of science and historical perspectives

(View a full text of the [National Science Education Standards](#).)

MATERIALS

For the Teacher

- Computer with Microsoft® PowerPoint application
- Computer projector or overhead projector with LCD Panel
- "It Began with Apollo" PowerPoint presentation

For each student

- Copy of Student Text, "[It Began with Apollo](#)"

PROCEDURE

- The "It Began with Apollo" student text is to be used with the "Finding the Perfect Fit" activity in the Genesis science education module *Dynamic Design: A Collection Process*. The text provides a historical perspective of solar wind collection focusing on the solar wind experiments deployed during the Apollo missions. In the teacher guide for "Finding the Perfect Fit," it is recommended that this student text be used to introduce the activity. Follow the first three procedures in the teacher guide. The PowerPoint presentation "It Began with Apollo" can be used to accompany the student text. It would be especially helpful for the teacher to have students perform the dialogue like a play. If you choose to do this, the PowerPoint presentation can be used like cue cards.
- You may want to use this PowerPoint presentation with your students during an oral reading of the text. The slides could be used to show what the people look like in a way that students can relate.
- As an extension you may want to ask interested students to research other experiments that were deployed on the moon. Then look for dialogue from the astronauts involved in that experiment in the Apollo Lunar Surface Journal to create a PowerPoint similar to the one presented here.

TEACHER RESOURCES

<http://www.genesismission.org/educate/kitchen/techappl/invigor.html>

Invigorate Your Presentations

<http://www.hq.nasa.gov/office/pao/History/alsj/frame.html>

Apollo Lunar Surface Journal