Data Analysis and Generalizations

Module Planning Guide

The Learning Cycle

• Catch a Piece of the Sun • Solar Wind Catcher • Summarizing • Solar Wind	• Teacher Guide	• Student Text • Student Activity • Student Text	**Grades 9-12** • Science As Inquiry	
• Exploring Data • A First Look	• Teacher Guide	• Student Text • Student Activity	**Grades 9-12** • Science As Inquiry • Data Analysis and Probability	• Observation • Inferences • Communication • Collecting data • Interpreting data • Questions
• Developing an Investigation • Exploring Data • A Closer Look at Solar Wind Regime Speeds • A Closer Look	• Teacher Guide	• Student Text • Model Student Activity • Student Activity	**Grades 9-12** • Science As Inquiry • Data Analysis and Probability	• Questions • Hypothesis • Variables • Procedures • Collecting Data • Analyzing Data • Conclusions
• Revising an Investigation • Peer Review • Poster Rubric	• Teacher Guide	• Student Text • Student Activity • Student Activity	**Grades 9-12** • Science As Inquiry • History and Nature of Science • Data Analysis and Probability	• Communication
• A Different Perspective • A Look From a Different Perspective	• Teacher Guide	• Student Activity	**Grades 9-12** • Science As Inquiry • Assessment C • Data Analysis and Probability	• Questions • Hypothesis • Variables • Procedures • Collecting Data • Analyzing Data • Conclusions

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

(View a full text of the Principles and Standards for School Mathematics.)

(View a full text of McREL's Compendium of Standards and Benchmarks for K-12 Education.)

Materials lists for each teacher guide in this module.

Listed below is a quick reference to all teacher guides included in this module along with a complete listing of each guide's materials, for your convenience.

Catch A Piece of the Sun
For each team:
- Student Text, "Solar Wind Catcher"
- Student Activity, "Summarizing"
- Student Text, "Solar Wind"
- Fact Sheet, "The Genesis Mission: An Overview"
- Fact Sheet, "How Does Studying the Solar Wind Tell Us About the Origin of Planets"

Exploring Data
For each team:
- Student Activity, "A First Look"
- Student Text, "Exploring Data"
- Data printout from one week of solar wind readings from the LANL Web site
- Data printouts for December 19-22, 2002, from the LANL Web site

Developing an Investigation
For each student:
- Student Text, "Solar Wind" (if you did not use this in "Catch a Piece of the Sun")
- Student Text, "Exploring Data"
- Model Student Activity, "A Closer Look at Solar Wind Speeds"
- Student Activity, "A Closer Look"
- Computer access to the LANL Web site, or appropriate data printouts of solar wind summary plots from the LANL Web site

Revising an Investigation
For each team:
- Student Text, "Peer Review"
- Student Activity, "Peer Review"
- Student Activity, "Poster Session Rubric"
- Student investigation reports from the "Development" section

A Different Perspective
For each student
- Student Activity, "A Look from a Different Perspective"
- Computer access to the LANL Web site or appropriate data printouts of Electron Spin Angle Distribution Plots
- Solar Wind Summary Plots from the LANL Web site

Note to teachers: This "at-a-glance" planning guide is the result of classroom pilot test data. Please contact us at genesisepo@mcrel.org with further suggestions for improving this guide to best meet you classroom needs.