

Science Minilessons: Problem Solving

Environmental Solutions

SEARCH the Internet for environmental problems and **CHOOSE** one.

EXAMINE and **ANALYZE** the problem (*Inquire* page 51).

BRAINSTORM and **EVALUATE** ideas (page 52).

PLAN a solution (*Inquire* page 53).

Methods

FIND a free lab-report form online.

REVIEW the sections of the form—purpose, hypothesis, materials, procedure, data, conclusions.

LABEL each section, using the steps of the inquiry process. (See *Inquire* page 56.)

COMPARE the scientific method and the inquiry process.

Deductive and Inductive Detectives

REVIEW science experiments you have done.

DECIDE which experiments were deductive (beginning with a hypothesis and leading to data) and which were inductive (beginning with data and leading to a hypothesis). (See *Inquire* pages 58–59.)

Math Minilessons: Problem Solving

Measuring Up

GET a one-foot ruler, a pencil, and a piece of paper.

CHOOSE a large object (such as a building or even a city block) to measure.

PROBLEM-SOLVE the fastest, most accurate (and safest) way to measure one dimension (height, width, or depth) of the object using your tools. (See *Inquire* pages 50–55.)

MEASURE the large object.

PROBLEM-SOLVE a way to check your answers.

Maritime Math

IMAGINE you need to build a boat.

DRAW the boat that you would like to build, including measurements.

CALCULATE the materials you need.

PRICE the materials at a local building supply store or by going online.

ADD UP the total cost.

CALCULATE the total displacement of your boat (see *Inquire* page 61).

Mathematical Solutions

READ *Inquire* page 60, which shows the steps for solving a math problem.

FIND a problem to solve in your math book.

USE the method on page 60 to work step-by-step to solve the problem.

REFLECT on how well the problem-solving method worked for you.