



PROTECT AND PROVIDE

SUBJECTS: Science, Social Studies, Math, English/ Language Arts, Health, Consumerism

GRADES: 6-8

DURATION: One class period of 40 to 60 minutes

GROUP SIZE: One or two classes of 10-30 students

SETTING: Indoors

KEY VOCABULARY: Balance, protect, provide, Organic Act, mission

ANTICIPATORY SET: Trying to organize issues and ideas can be challenging. Trying to keep issues in balance can be even more difficult.

OBJECTIVES: The students will be able to: 1) work productively in small groups to create a balance and demonstrate the complexity of keeping the environment in order; 2) make observations demonstrating the complex situations that occur in making decisions that affect the environment.

MATERIALS: Each group will need the following items: two small paper cups, a yardstick, masking tape, stapler or similar object (to create a fulcrum), 30 objects of equal weight (such as pennies or 1 gram cubes), a pencil, three Situation Cards, a copy of the Protect and Provide Activity Sheet.

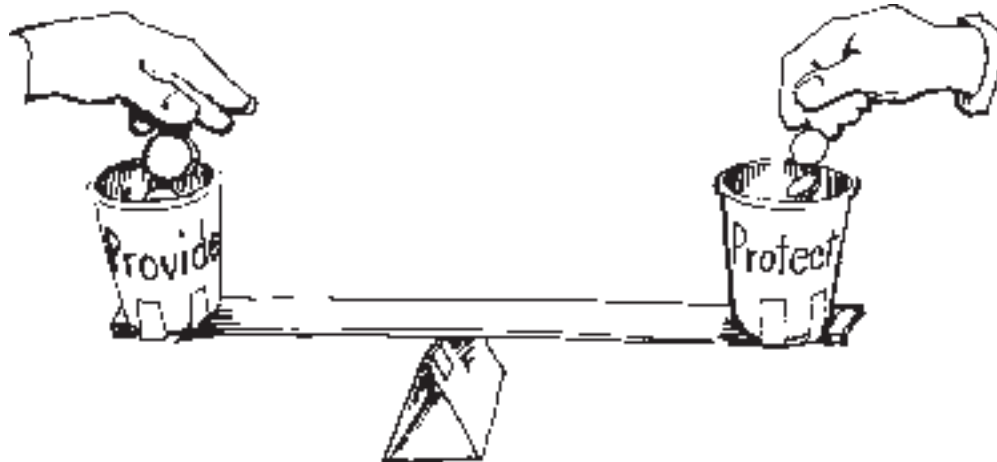
BACKGROUND: On August 25, 1916, legislation creating the National Park Service was adopted. This legislation, referred to by National Park Service employees as the Organic Act, is the basis for determining how the service manages its natural and cultural resources. A section of the law reads:

“The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations, as provided by law, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

This law states that the National Park Service is to accomplish two things:

1. To conserve (**protect**) the scenery, natural and historical objects, and the wildlife.
2. To **provide** enjoyment of these same resources.

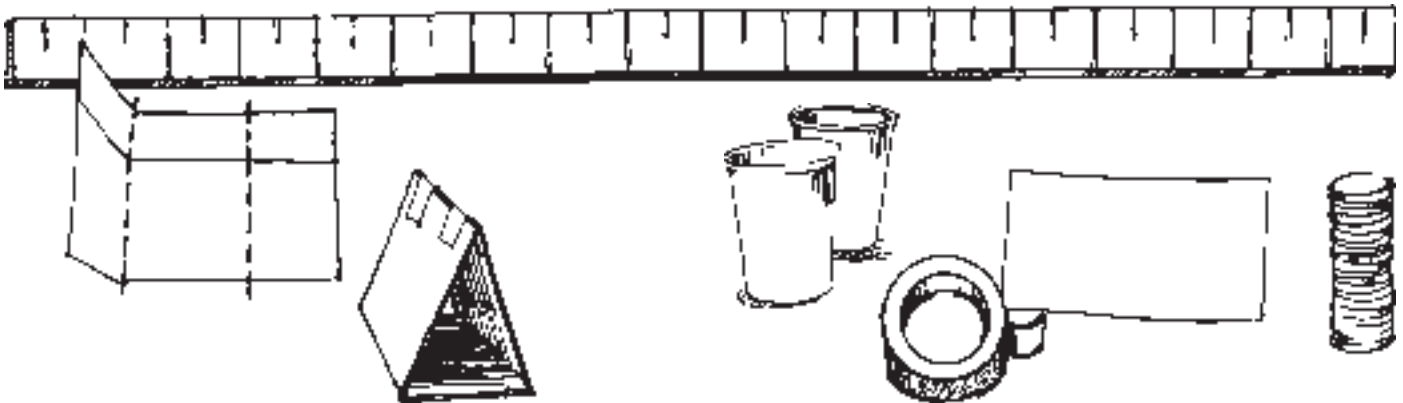
It is not an easy task to keep both areas in balance. A great deal of complex decision making goes into determining how to handle a situation to meet both missions.



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PROCEDURE:

1. The teacher passes out a copy of the Protect and Provide Activity Sheet to each student. The students read the portion of the Organic Act at the top of the page. The teacher explains that there are two major goals stated in the law and asks the students to identify and list them on the activity sheet.
2. The class should be able to respond with conserving (**protecting**) the scenery, natural and historical objects, and the wildlife; and **providing** for the enjoyment of these resources.
3. The teacher asks if the class thinks it would be an easy task to follow both missions and be fair and equal in meeting each goal. The teacher then explains that they will do an experiment to demonstrate how to keep everything in balance.
4. The teacher divides the class into groups of three or four students and explains that each group will create their own balance and make decisions affecting whether the balance stays level.
5. The teacher distributes cups, yardsticks, and masking tape to be used to create the balances. The next section of the activity sheet, entitled "Keeping the Mission in Balance", describes how to do this. Each group follows the instructions to create their model.
6. After building their balance, the students place ten pennies or similar items in each cup. Once each group places the items in their cup they then balance the yardstick on the fulcrum (stapler or other similar item).
7. Each group receives any three of the Situation Cards. The group can read them in any order. After reading, discussing, and filling in the Setting the Scene Work Sheet for the first Situation Card, the students adjust their balance accordingly by adding to or removing objects from the cups. For each beneficial change, add one penny (or other object) to the appropriate cup. For each harmful change, take one penny (or other object) out of the appropriate cup. Do not add or subtract if the situation is unchanged.
8. After adjusting their balance for the first Situation Card, the group brainstorms ways to rectify the situation to bring it back into balance, thus maintaining the "protect" and "provide" goals of the Organic Act.
9. The students follow the same procedure for the second Situation Card; and again for the third.
10. The teacher asks if any students would like to share their situations and how it affected their balance. The class discusses whether it was easy to keep their scale in balance. The teacher asks questions such as, "What could be done to assure all is in balance? Is there one part of your situation you see as more of a problem than another? Why? Does everyone in your group agree?"



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CLOSURE: We have taken a look at the mission of the National Park Service and how easily outside factors can make this mission difficult to achieve. When choices are made about what can be done in a situation, many viewpoints need to be considered before a decision is made. People making these decisions also have to stay within the limits of laws such as the Organic Act.

EVALUATION: The teacher is able to evaluate the students as they work in groups, through class discussion, and by reviewing their activity sheets.

EXTENSIONS:

1. The students can choose a “situation” to research and then provide an oral or written report on their findings.
2. A speaker from a conservation agency could be invited to speak to the class about various issues that impact their job and/or their organization’s mission. They could address an issue that is a challenge in meeting the mission/missions of their agency.
3. The students could choose an environmental issue related to their community and brainstorm various ways this issue could both positively and negatively affect the community.

PROTECT AND PROVIDE ACTIVITY SHEET

Please read the following paragraph taken from the “Organic Act” of 1916.

“The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations, as provided by law, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

This act is the law that must be obeyed whenever the National Park Service makes decisions.

List the two main ideas or missions in the Organic Act.

1. _____

2. _____

Keeping the Mission in Balance:

Materials: two small paper cups, tape, a pencil, a yardstick, a stapler or other heavy object (to serve as the fulcrum for the balance), and 30 objects of equal weight (pennies, cubes, etc.).

1. Place the fulcrum (stapler or other heavy object) on a level area.
2. Tape one cup to each end of the yardstick. Write “Protect” on one cup and “Provide” on the second cup.
3. Place 10 items (pennies, cubes, etc.) in each cup. Then place the yardstick on the fulcrum so that it is balanced and the yardstick is level.
4. As a group, read your situation cards one at a time and fill out the Setting the Scene Work Sheet for each card.

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SITUATION CARDS

Situation Card A

It is a warm spring day. Many people have come to enjoy the great outdoors in their favorite national park. There are so many people, that cars are parking in an open field.

Situation Card B

There is a family on a trail in a national park. They are having a wonderful time identifying and picking wildflowers to press later.

Situation Card C

A carload of friends pulls up to the entrance gate to visit a national park. They are welcomed and told they will have to wait for a car to exit the park before they can enter.

Situation Card D

There is a group hiking along a trail in a national park. They discover arrowheads and pottery. The group looks at the artifacts without touching them. As everyone walks away the last person figures it won't hurt if they take just one.

Situation Card E

There are deer gathered along a roadside in a national park feeding on nuts and plants. Three cars pull over to take pictures. One person takes out an apple and starts over to feed the deer.

Situation Card F

A couple is out walking on a nature trail in a national park. They come to a tree and see that others have left initials on the tree. The couple decides to add their initials and a heart. They begin to carve into the bark.

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SETTING THE SCENE WORKSHEET

Choose one of the situation cards and read it aloud to your group.

As a group decide:

1. Does this situation affect the Protect mission, the Provide mission, or both?
2. Is it beneficial, harmful or leave things unchanged? (Check or circle your answer.) Why?
3. How can the situation be corrected?

Answer the questions in the boxes below for each of the three situations.

CARD	PROTECT	PROVIDE
	<input type="checkbox"/> Beneficial <input type="checkbox"/> Unchanged <input type="checkbox"/> Harmful Why: Corrective Measure:	<input type="checkbox"/> Beneficial <input type="checkbox"/> Unchanged <input type="checkbox"/> Harmful Why: Corrective Measure:
	<input type="checkbox"/> Beneficial <input type="checkbox"/> Unchanged <input type="checkbox"/> Harmful Why: Corrective Measure:	<input type="checkbox"/> Beneficial <input type="checkbox"/> Unchanged <input type="checkbox"/> Harmful Why: Corrective Measure:
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For each situation, adjust your balance by adding to or by removing objects from the appropriate cup.

Is it easy to keep the balance level?

Is the job of upholding the missions of the Organic Act easily done?

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CORE CONTENT

- MA-M-4.3.2** How the change in one variable affects the change in another variable (e.g., if rate remains constant, an increase in time results in an increase in distance).
- MA-M-4.3.1** How everyday situations, tables, graphs, patterns, verbal rules, and equations relate to each other.
- MA-M-4.2.6** Write and solve equations that represent everyday situations.
- MA-M-4.2.3** Model equations and inequalities concretely (e.g., algebra tiles or blocks), pictorially (e.g., graphs, tables), and abstractly (e.g., equations).
- MA-M-3.2.5** Make predictions and draw conclusions from statistical data and probability experiments.
- MA-M-3.2.1** Organize, represent, analyze, and interpret sets of data.
- MA-M-1.2.1** Add, subtract, multiply, and divide rational numbers (fractions, decimals, percents, integers) to solve problems.
- PL-M-3.3.2** Improving environmental conditions (e.g., air and water quality) and preserving natural resources impact personal and community health.
- PL-M-3.3.1** A range of resources and services are provided by community agencies such as: public health department, fire department, police department, family resource centers, hospitals, and nonprofit organizations (e.g., American Heart Association, American Red Cross, American Cancer Society).
- PL-M-3.1.5** Environmental issues (e.g., pollution) should be considered when making consumer decisions (e.g., recycling, reducing, reusing).
- PL-M-1.8.4** Using appropriate coping strategies (e.g., realistic goal-setting, effective time management, decision-making processes) promotes mental and emotional health.
- PL-M-1.8.1** The use of appropriate strategies (e.g., assertiveness, refusal skills, decision-making techniques) are positive ways to cope with peer pressure.
- RD-H-x.0.7** Formulate opinions in response to a reading passage.
- RD-H-x.0.1** Locate, evaluate, and apply information for a realistic purpose.
- RD-H-4.0.8** Identify essential information needed to accomplish a task.
- RD-H-2.0.13** Analyze the content as it applies to students' lives and/or real world issues.
- RD-H-2.0.12** Make predictions and draw conclusions based on what is read.
- RD-M-x.0.10** Connect information from a passage to students' lives and/or real world issues.
- RD-M-x.0.9** Reflect on and evaluate what is read.
- RD-M-x.0.8** Make predictions, draw conclusions, and make generalizations about what is read.
- RD-M-x.0.7** Skim to get the general meaning of a passage.
- RD-M-4.0.14** Interpret the meaning of specialized vocabulary.
- RD-M-4.0.11** Locate and apply information for a specific purpose (e.g., following directions, completing a task).
- RD-M-3.0.15** Identify the argument and supporting evidence.
- RD-M-2.0.14** Summarize information from a passage.

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CORE CONTENT

- RD-M-2.0.13** Identify supporting details and explain their importance in a passage.
- RD-M-2.0.12** Apply knowledge of organizational patterns (e.g., cause and effect, comparison, contrast, sequence) to understand a passage.
- SC-M-3.5.4** The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.
- SC-M-3.5.2** Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers because they make their own food. All animals, including humans, are consumers, and obtain their food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.
- SC-M-3.5.1** A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.
- SC-M-3.4.1** Biological change over time accounts for the diversity of species developed through gradual processes over many generations. Biological adaptations include changes in structures, behaviors, or physiology that enhance survival and reproductive success in a particular environment.
- SS-M-4.4.4** Individual perspectives impact the use of natural resources (e.g., watering lawns, planting gardens, recycling paper).
- SS-M-4.4.3** The natural resources of a place or region impact its political, social, and economic development.
- SS-M-4.4.2** The physical environment both promotes and limits human activities (e.g., exploration, migration, trade).
- SS-M-4.2.2** Places and regions change over time as new technologies, resources, and knowledge become available.
- SS-M-4.2.1** Places can be made distinctive by human activities (e.g., building houses, stores, roads, railroads, irrigation) that alter physical features.
- WR-M-1.4** Transactive writing is informative/persuasive writing that presents ideas and information for authentic audiences to accomplish realistic purposes like those students will encounter in their lives. In transactive writing, students will write in a variety of forms such as the following:
- letters
 - speeches
 - editorials
 - articles in magazines, academic journals, newspapers
 - proposals
 - brochures
 - other kinds of practical/workplace writing.
- Characteristics of transactive writing may include :
- text and language features of the selected form
 - information to engage/orient the reader to clarify and justify purposes
 - ideas which communicate the specific purpose for the intended audience
 - explanation and support to help the reader understand the author's purpose
 - well-organized idea development and support (e.g., facts, examples, reasons, comparisons, anecdotes, descriptive detail, charts, diagrams, photos/pictures) to accomplish a specific purpose
 - effective conclusions.