EXPLORING Your Environment

FACILITATOR GUIDE
ACKNOWLEDGMENTS

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TABLE OF CONTENTS

About Science ............................................................................................................. 2
Welcome ....................................................................................................................... 3
  Curriculum Web Site ............................................................................................... 3
  About This Series .................................................................................................. 4
Project Goals and Objectives ..................................................................................... 6
Checklist for Engaged Learning .................................................................................. 7
Planning Your Project Meetings and Outdoor Activities .............................................. 8
Planning a Safe Outdoor Adventure ........................................................................... 9
Using Your Field Notes .............................................................................................. 11
Facilitator Guide Notes - Ecosystem Services .............................................................. 12
  Activity At-A-Glance Learning Chart - Ecosystem Services ...................................... 18
Facilitator Guide Notes - Earth's Capacity ................................................................ 22
  Activity At-A-Glance Learning Chart - Earth’s Capacity ......................................... 30
Characteristics of Middle School Youth ..................................................................... 34
Experiential Learning .................................................................................................. 37
Scientific Inquiry ......................................................................................................... 38
Facilitator Roles and Responsibilities ......................................................................... 40
Facilitator Tips ............................................................................................................ 42
Exploring Your Environment Words to Explore ........................................................ 44
Exploring Your Environment Group Games .................................................................. 48
Sources ....................................................................................................................... 60
Notes ......................................................................................................................... 63
CHECKLIST FOR ENGAGED LEARNING

Children learn best when they are actively engaged in the learning process, are encouraged to ask questions and contribute ideas, and are recognized as a learning resource. If you have several years of experience working with youth or this is your first time, you will find these questions helpful to create a rich learning environment. You will also help youth gain new insights, not only into our environment, but into themselves and others.

THE ENVIRONMENT: CONTEXT

- Is there shared learning and conversation among adults and youth? Is the learning taking place as a social process?
- Does the setting promote safety? (physically? verbally? non-verbally? emotionally?)
- Do youth feel in control by making choices?
- Are youth given opportunities to demonstrate mastery, independence, generosity, and belonging?
- Are youth actively engaged in hands-on, minds-on activities?

THE LEARNING: CONTENT

- Is it fun? Is the learning active, intentional, and does it provide opportunity for reflection?
- Are youth inventing their way of thinking about the world?
- Are youth engaged in self-discovery?
- Are youth relating learning to real-world experiences?
- Are youth taking responsibility for their learning?
- Are youth constructing their learning by broadening their knowledge, skills, and attitudes about a topic?
- Is embedded evaluation obvious? Do the products of the learning show that youth learned (such as a speech/a constructed or built object/a completed project).
- Are youth displaying their work? In a public place? Among peers?

THE FACILITATION: DELIVERY

- Are questions used to encourage youth?
- Does the experience allow opportunity for reflection?
- Are ideas or concepts broken down into small, understandable parts (six or less)?
- Is the content adapted to meet the interests, knowledge and abilities of participants?
- Am I an active learner and listener?
- Are strategies being discussed to stimulate lifelong learning?
- Am I asking questions? Am I prompting youth to ask questions? Am I catching teachable moments to deepen the learning?
Facilitator Guide Notes

**ACTIVITY 1: WHAT ARE ECOSYSTEM SERVICES?**


National Science Education Standards:
- Unifying Concepts and Processes: System, order and organization; Evidence models and explanation.
- Life Science: Populations and ecosystems; Organisms and environments; Structure and function.
- Science in the Personal and Social Perspective: Populations, resources and environments.
- Science and Technology: Understanding about science and technology.

Life Skills: Critical Thinking.

Learner Outcomes:
- Participants will demonstrate an understanding of the components of Ecosystem Services.
- Participants will articulate that Ecosystems have a value in the natural world.
- Participants will show that Ecosystem Services are essential for life.

HELPFUL HINTS
- The leader may want to put the definitions of Provisioning, Regulating, Supporting, and Cultural on a large sheet of paper around the room for youth to see.
- Leader may want to correlate the services definitions to real world examples for youth.
- Group sizes can be adjusted depending on age and number of youth participating.

**ACTIVITY 2: POLLINATION BUZZ**

4-H Science Abilities: Collaborate, Observe, Model/Graph/Use Numbers.

National Science Education Standards:
- Unifying Concepts and Processes: Evidence models and explanation; Change, constancy and measurement.
- Life Science: Populations and ecosystems; structure and function; Diversity and adaptations of organisms.
- Science in the Personal and Social Perspective: Populations, resources and environments.

Life Skills: Keeping Records, Sharing.

Learner Outcome:
- Participants will show the relationship and affects of pollination to food production.
- Participants will demonstrate an understanding of the process of pollination.

HELPFUL HINTS
- Leader may want youth to draw the relationship between pollinators, plants, and water. This will help them see the big picture and the pollinators real purpose.
- Have youth create a list of how pollinators, while a regulating service, also are connected to the other services.
- In addition to the cornmeal and flour, try other types of granulated materials, large and small, such as powdered sugar, granulated sugar or ground oats.
- Have youth see if there is any difference if the pollen is wet or dry.
CONDUCTING AN ENVIRONMENTAL SKILLATHON

Science, Engineering, and Technology

4-H Science Indicator: Participate in an Environmental Skillathon
Planning, conducting and participating in an Environmental Skillathon

4-H Science Standard: With practice, students should become competent at communicating experimental methods, following instructions, describing observations, summarizing the results of other groups, and telling other students about investigations and explanations

4-H Science Abilities: Categorize/order/classify, collaborate, communicate, question

Life Skills: Planning/organizing, decision making, teamwork

Materials
Station signs, situation and task signs, and materials necessary for the team to perform the tasks at each station

Activity Overview
An Environmental Skillathon is a series of learning stations at which teams are presented with realistic situations and tasks to do. The teams attempt to complete the task before being told or shown how. The operator at each station follows with questions to help the teams build on their experiences. Teams can score points when they complete a task at a station if the Skillathon is used for assessment.

An Environmental Skillathon is a great way to perform a wide variety of environmental and earth stewardship skills, to discover new areas of interest, and to assess youths’ knowledge base. It works well at project meetings, group meetings, in the classroom or at a mall or fair.

What to Do
Organizing an Environmental Skillathon is an excellent activity for youth to practice developing their planning skills.

• Decide on station topics, considering time and resources available.
• Make up a realistic situation and task sign for each station so participating teams do not require additional directions.
• Decide who will be in charge of each station (the Station Facilitator).
• Decide what equipment and supplies will be needed at each station.
• Delegate responsibility for gathering supplies.

Science Up Stations
Each station should have a 8 ½ x 11-inch standup sign that clearly indicates the situation and task of the station. After reading the sign, the teams should be able to start solving the task immediately without coaching by the Station Facilitator (inability to do this might indicate that the directions were not clearly written).
The Station Facilitator
The station facilitator has the following responsibilities:
- Become familiar with the topic.
- Develop several questions to ask.
- Allow time for the teams to discover for themselves how to accomplish the task, before giving hints or telling or showing them how.
- Facilitate the learning.

How To Play
Once the stations are prepared, begin the Environmental Skillathon.
- Depending on the size of the group and the number of stations, put youth into teams of two to four.
- Start each team at a different station.
- The members of a team work together to complete the tasks outlined.
- Allow about eight minutes at a station and then have the teams rotate to the next station.

After each team has visited each station follow with questions about each station and the overall activity.
- For those of you who organized a station, what was most challenging about what you did?
- How did you work as a team to solve the problem at a station?
- What makes a Skillathon a good activity to practice solving problems?
- What is your usual way of solving a problem?
- How could you improve your problem solving in the future? Who or what might help?

Environmental Skillathon Station Ideas

What is an Ecosystem?
Situation: You want to identify the components of an ecosystem.
Your task: Match the “ecosystem characteristics card” with its picture in a natural ecosystem.
Materials: A picture for each of the ecosystem features: sun, soil, water, air, food, shelter, space, animals and plants.
“I Pledge my **Head** to clearer thinking, my **Heart** to greater loyalty, my **Hands** to larger service, and my **Health** to better living, for my club, my community, my country, and my world.”

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