

4-H Training Topics - Science Discovery Series 1 & 2

Background:

Science Discovery is designed to introduce science exploration to children and youth in grades 3-7 using hands-on activities. This exciting curriculum includes two guides. **Volume 1** focuses on the basics about whales, geology, trees, recycling, water quality and conservation. **Volume 2** provides more in-depth coverage of meteorology, spiders, oceanography, leaf & tree identification, space exploration, and waste management alternatives & environmental conservation.

Resource:

Science Discovery Series 1 “As Big As A Whale!”, pages 11-26.

Materials Needed:

One or more 100 ft. pieces of rope, twine, or strong string marked in 5 ft. intervals, sidewalk chalk, copies of the blue whale diagram on **page 18 of Volume 1**, a large open space of pavement, clipboards (optional), and pencils.



Preparation Time:

Make copies of **pages 18-21, Volume 1**. Place knots every five feet in the rope, make copies of crossword puzzle and the blue whale diagram, and set out the materials.

Allow 20 minutes for preparation and set-up.

1 Opening Activity

What to Do	What to Say	Minutes
Have the Marine Mammal Crossword Puzzle sheets, pencils and clipboard available for all staff. Distribute the crossword puzzle to each person as they arrive. Encourage them to ask others for answers to complete the puzzle. People who arrive early will have more time to play, but end the game 4 minutes after the training is scheduled to start.	Be sure to pick up a crossword puzzle sheet and complete it by asking others to provide words to fill in the down and across spaces on the puzzle. Ask them to sign their name on the paper when they provide an answer. Meet as many people as possible in 4 minutes.	4

2 Curriculum

What to Do	What to Say	Minutes
Introduce the <i>4-H Science Discovery Series 1 & 2</i> . Show the two curriculum guides.	Welcome to the <i>Science Discovery</i> 4-H training. For the next 30 minutes we're going to explore how to use this curriculum with children and youth in grades 3-7.	1

3 Staff Introductions

What to Do	What to Say	Minutes
Ask each person to give their name, where they work and how long they have worked for the Army. Adjust this activity according to the number of people in the training group. If it is a group of 3 or less each person can talk about 1 minute. If it is a large group each person should mention one experience or ask for one or two volunteers to share, but keep it brief.	Let's start with introductions. Please include name, workplace and length of service with the Army. Also briefly share experiences with science as a child and as an adult.	3

4-H Training Topics - Science Discovery Series 1 & 2

4 Doing an Activity

What to Do	What to Say	Minutes
Move the group to a large area like a playground. Divide into groups of 4 and ask each group to use the blue whale diagram and the supplies provided to make a whale. Encourage them to follow the directions provided.	4-H projects help children and youth learn life skills through non-formal education. One way to learn and practice skills is through group activities where people have to work together to accomplish a goal. The goal of this activity is to draw a life size outline of a blue whale on the ground. Using the materials provided and the diagram draw a blue whale. Be prepared to share the whale created by the group and discuss how decisions were made.	10

5 Sharing Ideas

What to Do	What to Say	Minutes
Invite everyone to walk around and look at the blue whales drawn on the ground then return to their group of four.	Now that the whales are complete, take a few minutes to walk around and look at them then return to your group. Let's talk about the activity. Were the whales recognizable? How were team jobs determined? Were there any disagreements? Did the group have a leader? Was this activity fun? Are there any other comments or suggestions?	5

6 Applying the Experience

What to Do	What to Say	Minutes
Make a plan for starting a 4-H <i>Science Discovery Series</i> Project.	Now it's time to work as a group and set dates for a <i>Science Discovery</i> project. When should the meetings begin with the children/youth? What activities should be included? Who is the adult project leader? When should the group meet again for more planning? Will children/youth be included in this meeting?	5

7 Making a Plan

What to Do	What to Say	Minutes
Apply this experience to other science activities used at the center.	How will children/youth handle this activity? Will they like it? Will it need to be changed? How? Was this a useful experience? What other resources are needed to do this with children/youth? Has this generated more ideas for other science activities?	3



4-H Training Topics - Science Discovery Series 1 & 2

8

Close

What to Do	What to Say	Minutes
Summarize and close.	<p>This one short <i>4-H Science Discovery</i> activity is something that can easily be used in the program. It will take more time when working with children, especially if the group is larger. The <i>Science Discovery</i> curriculum can be used with other 4-H curricula like environment, health, aerospace, foods, gardening, computers, and photography. Get ideas from the youth and plan about ten activities for the project. All 4-H project materials have ideas that can be turned into lesson plans and are fun for adults and children. This activity also fits into the service areas of Life Skills, Citizenship and Leadership Opportunities; Arts, Recreation and Leisure Activities; and Academic Support, Mentoring and Intervention Services.</p> <p>Are there questions? We'll explore another 4-H topic at a future staff meeting or training session. Thank you for your interest and enthusiasm.</p>	2

