



# Cast Into the Future



## Sportfishing Project Activity Guide

Name \_\_\_\_\_

County \_\_\_\_\_



REVIEWED & RECOMMENDED  
National 4-H Curriculum

# Note to the Fishing Project Helper

Thank you for volunteering to be a helper/mentor to one or more young persons interested in sportfishing. With your support, these youth will not only enjoy fishing throughout their lives but also develop into capable, caring adults with the life skills necessary to be successful.

Your interest, enthusiasm and, most importantly, your time will be key ingredients to positive and successful experiences. With your guidance and support, youth will set goals and challenge themselves to work through the activities in this guide. It will be a fishing journey everyone will enjoy.

## Your Role

- Become familiar with the material in this activity guide and the *Sportfishing Helper's Guide*.
- Support youth in their efforts to set goals and complete the activities.
- Date and initial the activities when the youth complete them.
- Help them know themselves, including their strengths and weaknesses.
- Incorporate the use of the experiential learning cycle in all learning experiences.

## The Fishing for Adventure Sportfishing Series



This guide, *Cast Into the Future*, is the third in the series of three for youth that also includes *Sportfishing 1 Take the Bait* and *Sportfishing 2 Reel In the Fun*. The three youth guides have been designed for grades 3–5, 6–8 and 9–12 respectively, but may be used by youth in any grade based on their fishing project skills, experience and interest.

Each activity is designed so the young person has an opportunity to learn by doing before being told or shown how. Your role as Helper is to “take a back seat” while the youth explores the activities and learns from the experiences, even when something doesn’t work the first time the way it should. You can help with the learning most effectively by listening as the young person considers the questions and draws conclusions. At times the activity may call for you to be a resource person for content or other ideas.

## Acknowledgments

**Original 4-H Sportfishing Design Team:** Doug Steele, Chair, Eric Bergersen, Perry Brewer, Ronnie Castillo, Mark Cronquist, Rachel Dunaway, Kim Fabrizius, Eldon Fisher, Steve Flickinger, Bill Hix, Colleen G. Rodriguez, CO.

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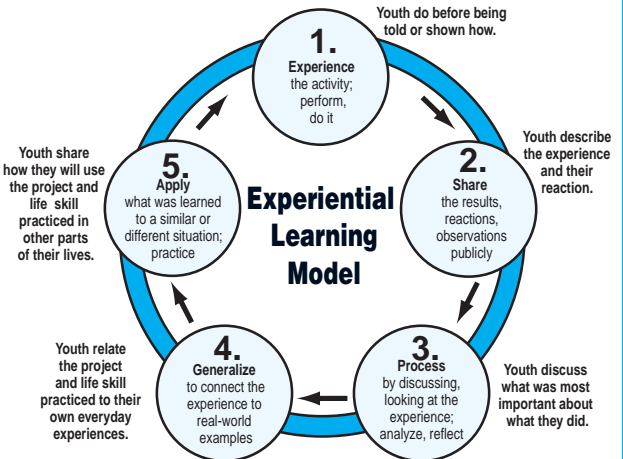
**Editors:** Tom Zurcher, MI and Jennifer Geraci, CO.

**Photographs:** Kelly Nelson, CO and Tom Zurcher, MI.

## Experiential Learning Model

This five-step experiential model is used in each activity in this series.

As you can see, the youth first attempt the activity on their own. After the youth do as much as they can and answer the questions, you discuss the questions with them. What did they do? What was important about what they did? How do their accomplishments relate to their lives? And finally, how might they use the life and project skills practiced in the future? The more you can ask additional thought-provoking questions and help them clarify and expand on their ideas, the richer the youths' educational experiences will be.



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals" © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.

Each activity is designed to support the experiential learning model endorsed by the 4-H Program.

- Each activity lists the project skill, the life skill to be practiced and a success indicator. The success indicator indicates what the youth will need to do to successfully complete the activity. In addition, in the *Helper's Guide* you will find an evaluation piece for you to use to decide what the youth has learned from each activity.
- Baiting the Hook gives direction how to complete the activity.
- Sharing Fish Tales asks youth to share their experience by recording brief answers to questions and sharing these with their helper. The questions help youth process the experience through the five important steps of the experiential cycle shown on this page and more fully outlined in the *Helper's Guide*.
- Casting Out – Youth share what they did in the activity.
- Working the Lure – Youth answer questions about important aspects of the experience and the life skill practiced while doing the activity.
- Setting the Hook – Youth relate the experience to everyday or similar experiences in their own lives.
- Landing the Fish – Youth tell how they could apply the experience or build from this experience to another experience.
- The Fishing Deeper section includes additional activities the youth may choose to do to expand the experience. Doing these activities may be used to help complete the Achievement Program for this level.
- Also included in most activities are additional resources such as Tackle Tips and Angling Tips that support the subject matter of the activity. Internet resources are included in the Fishing On Line section.

## Supporters and Donors

American Sportfishing Association

Future Fisherman Foundation

Fly Logic, Inc.



Colorado State University Cooperative Extension

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# Cast Into the Future Tackle Box Contents

Note to the Project Helper .....	Inside Front Cover
Tackle Box Contents .....	1
Welcome to Cast Into the Future .....	2
Planning the Journey .....	3
<i>Cast Into the Future</i> Completion Certificate .....	3
<i>Cast Into the Future</i> Achievement Program .....	4

## Chapter 1: Angling Skills

Sharing the Adventure .....	5
A Reel Mess! .....	6
<i>Know Your Fish - Catfish and Bullheads</i> .....	6
Designing a Skillathon Station .....	8

## Chapter 2: Tackle Crafting

Beads, Dog Hair and Feathers .....	10
Making a Point .....	12
Customizing Plugs .....	13
Trash to Treasure .....	14

## Chapter 3: Aquatic Ecology

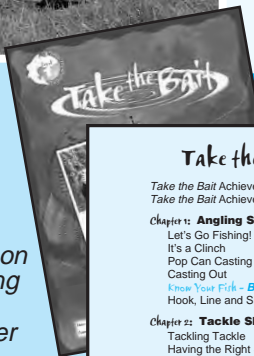
Water, Water Everywhere .....	16
Collecting Aquatic Insects .....	18
What's Bugging You? .....	20

## Chapter 4: People and Fish

Fishing Dilemmas .....	22
Cast Into the Future .....	24
Keeping a Field Journal .....	26
Investigating Sportfishing Issues .....	28
Playing Know Your Fish .....	30
<i>Know Your Fish - Trout, Walleye, Pike, Carp</i> .....	32
Fish Talk 3 .....	34
Sportfishing Resources .....	36



"Let's get started."



### Take the Bait

Take the Bait Achievement Program  
Take the Bait Achievement Certificate

#### Chapter 1: Angling Skills

Let's Go Fishing!  
It's a Clinch  
Pop Can Casting  
Casting Out  
*Know Your Fish - Bluegill*  
Hook, Line and Sinker

#### Chapter 2: Tackle Skills

Tackling Tackle  
Having the Right Stuff  
Clean Mean Fishing Machine  
*Know Your Fish - Crappie*

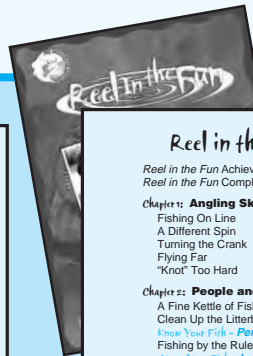
#### Chapter 3: Aquatic Ecology

Home, Home on the Pond  
Fishy Baits  
Kitchen Table Water Cycle

#### Chapter 4: People and Fish

Which Fish Is It?  
From Hook to Table  
Sharp Teeth, Sharp Spines

Fish Talk 1  
Fishing Resources



### Reel in the Fun

Reel in the Fun Achievement Program  
Reel in the Fun Completion Certificate

#### Chapter 1: Angling Skills

Fishing On Line  
A Different Spin  
Turning the Crank  
Flying Far  
"Knot" Too Hard

#### Chapter 2: People and Fish

A Fine Kettle of Fish  
Clean Up the Litterbug  
*Know Your Fish - Perch*  
Fishing by the Rules  
*Know Your Fish - Largemouth and Smallmouth Bass*

#### Chapter 3: Tackle Crafting

Flashy and Fun  
Making a Fly Wallet  
The Woolly Bugger

#### Chapter 4: Aquatic Ecology

Trapped in a Bottle  
What's In the Water?  
Fishy Smells Something  
A Fish by Design

Fish Talk 2  
Fishing Resources



### Sportfishing Helper's Guide

#### Chapter 1: Planning for Success

Steps to a Successful 4-H Sportfishing Program  
Evaluating Your 4-H Sportfishing Program  
Ages and Stages of Youth Development  
Teaching and Learning Experientially  
Developing Skills for a Lifetime

#### Chapter 2: Developing Sportfishing Skills

Fish-Match Mixer  
Let's Make Plans  
Making Fish Prints  
Powder Painting Jigs  
Making Worms  
From Arbor to Albright Special

#### Chapter 3: Fishing for Fun

Go Fish!  
Building a Watershed  
Planning a Fishing Trip  
Boating Safely

#### Chapter 4: Playing Sportfishing Games

Fishing A to Z  
Playing PERCH Bingo  
Conducting a Sportfishing Quiz Bowl  
Sportfishing Skillathon Excitement  
Fun with Sportfishing Pyramid

Fishing for Adventure Scope and Sequence  
Sportfishing Meeting Ideas  
Fishing for Adventure Answer Key  
Evaluating the Impact  
Sportfishing Resources

For more on sportfishing look for these other guides in this set.



# Welcome to Cast Into the Future

If you are reading this you probably completed *Reel In the Fun*. If this is your first year in the project, you might want to review the Level 1 activity guide “*Take the Bait*” and the Level 2 guide “*Reel in the Fun*” to see if there are some skills you will need to practice to be able to successfully complete Level 3, “*Cast Into the Future*.” In this activity guide you will build upon many of the experiences from Levels 1 and 2.

The activities are more challenging since you are now older, more experienced, more confident and more knowledgeable about fishing. You’ll now expand your horizons, look beyond your personal interests and explore how the issues of the environment and aquatic ecology affect fish habitat.

Here is some of what you will do:

- Learn to determine the age of fish
- Disassemble and reassemble a fishing reel
- Make artificial flies and lures
- Modify fishing equipment
- Design and craft a lure
- Collect and identify aquatic insects

## Sportfishing 3 Guidelines

Set your goals and record project highlights

- Do a minimum of six activities from the main chapter activities or Fishing Deeper optional activities each year and complete the program within three years
- Participate in a minimum of three of the learning experiences listed on the Planning Guide each year
- Practice and develop the life skills of relating to others, making decisions, learning to learn and communicating with others
- Increase your knowledge and skills in the sportfishing project

## Sportfishing Achievement Program

While you are having fun doing the activities, you will also be completing *Cast Into the Future* Sportfishing Achievement Program. Be sure to record your goals, learning experiences and activities. You will be recognized for your good work.

## Your Project Helper

You may have decided to have a different Project Helper for Level 3. Perhaps your Level 2 helper moved away, was not able to volunteer as much time this year, or felt that you needed the support and challenge of someone new. Regardless of who your project helper is, this person will be a very valuable resource as you participate in the activities. Your helper will assist you in planning, setting reasonable goals for yourself and guide you whenever you think you need a little extra help.

My Project Helper \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_

# Cast Into the Future

## Planning the Journey

Name \_\_\_\_\_

What I want to do and learn:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

### Learning Experiences

Complete at least three of these activities each year.

Activities			
	Year	Year	Year
Give a presentation			
Join a fishing organization			
Help organize a fishing project meeting			
Help conduct a fishing or casting tournament or derby			
Participate on a fish quiz bowl team			
Help a younger 4-H'er prepare a fair exhibit			
Help judge at a fair			
Help plan and conduct a fishing skillathon			
Do a community service project			
Take a friend fishing			
Collect local fish folklore			
Interview an angler			
Your own experience			
Your own experience			

### Sportfishing Highlights

Date and list the most fun and interesting things you do in the sportfishing project.

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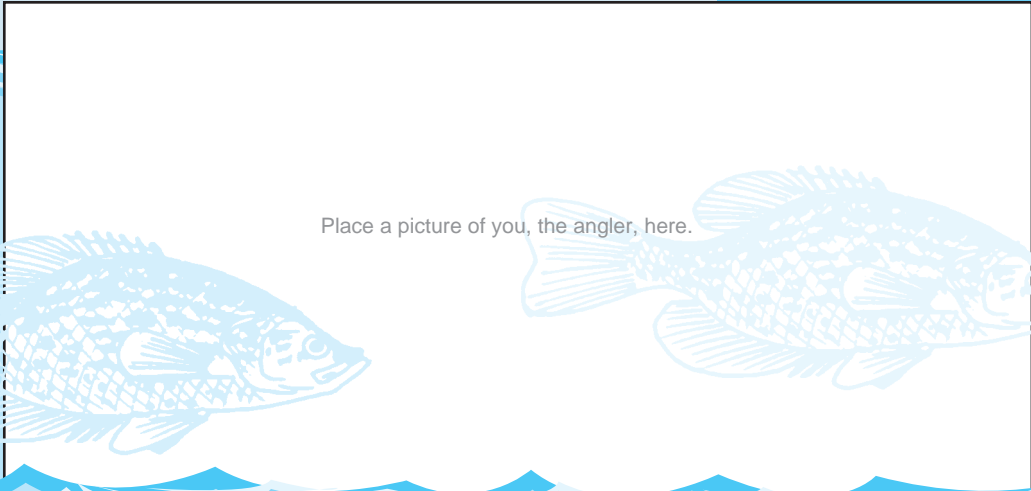
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# Sportfishing Achievement Program

## Guidelines

1. Try to do at least six activities each year.
2. Complete at least 20 of the *Cast Into the Future* and Fishing Deeper activities within three years to complete this achievement program.
3. Ask your project helper to initial the activities as you complete them.

## Cast Into the Future Activities

Complete at least 12 activities.

	Date Completed	Helper's Initials
<b>Chapter 1 Angling Skills</b>		
Sharing the Adventure		
A Reel Mess!		
Designing a Skillathon Station		
<b>Chapter 2 Tackle Crafting</b>		
Beads, Dog Hair and Feathers		
Making a Point		
Customizing Plugs		
Trash to Treasure		
<b>Chapter 3 Aquatic Ecology</b>		
Water, Water Everywhere		
Collecting Aquatic Insects		
What's Bugging You?		
<b>Chapter 4 People and Fish</b>		
Fishing Dilemmas		
Old Timers		
Keeping a Field Journal		
Investigating Sportfishing Issues		
Playing Know Your Fish		

## Fishing Deeper

Select and do your choice of the Fishing Deeper activities. Record the page number of each activity you complete and discuss with your helper.

Page Number	#	Date Completed	Helper's Initial

Write your own activity here.

Date \_\_\_\_\_ Helper's Initials \_\_\_\_\_

Write your own activity here.

Date \_\_\_\_\_ Helper's Initials \_\_\_\_\_

Write your own activity here.

Date \_\_\_\_\_ Helper's Initials \_\_\_\_\_



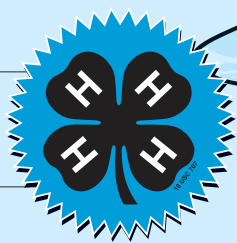
# Cast Into the Future Completion Certificate

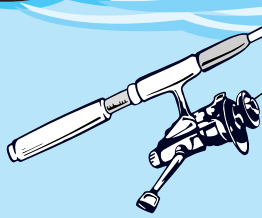
I certify that

\_\_\_\_\_ has completed all requirements of the *Cast Into the Future* Achievement Program in the Sportfishing Adventure Series.

Helper's Signature \_\_\_\_\_

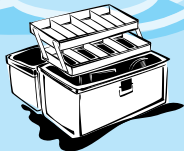
Date \_\_\_\_\_





## Sharing the Adventure

This is a fun and educational mixer to not only help members of the group get acquainted but also help them share and learn information about local fish species.



### Tackle Box

Materials Needed

- Fishing equipment and place to fish

### Baiting the Hook

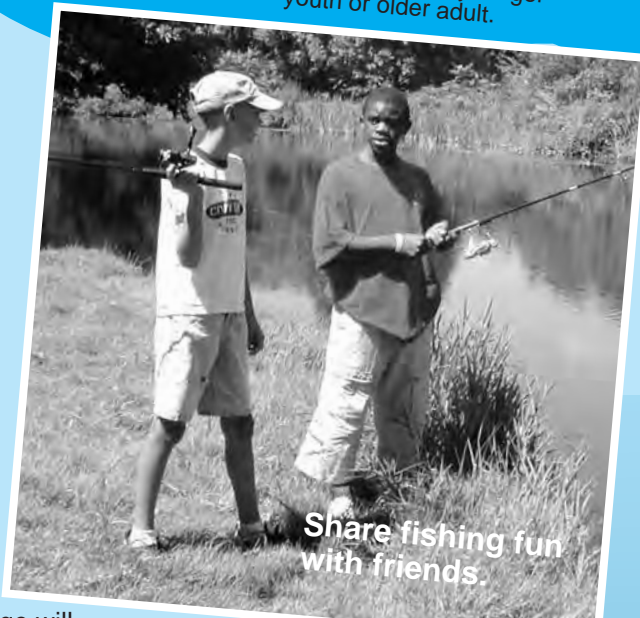
Once you feel comfortable with your angling skills, it can be satisfying and rewarding to experience the company of a friend while you fish. You can share experiences and knowledge, as well as carry on traditions and strengthen relationships between generations.

Invite a young friend or perhaps an elderly person to share a fishing experience with you. Your challenge will be to help make the occasion as rewarding and memorable as possible. In the space provided, briefly describe what you did and what you will remember about the day.

### Our Fishing Experience



**Fishing Project Skill:** Taking a friend fishing  
**Life Skill:** Sharing with others  
**Success Indicator:** Shares a fishing experience with younger youth or older adult.



Share fishing fun with friends.



### Sharing Fish Tales

(With your helper)

Outing • *spion* Fish Talk

#### Casting Out (Share what you did)

Who did you take fishing and where did you go?

What did you catch?

What was the most fun part of your fishing trip?

#### Working the Lure (Process what's important)

Why is it important to share your experiences with others?

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#### Setting the Hook (Generalize to your life)

What did you learn from this shared experience?

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#### Landing the fish (Apply what you learned)

What would you do differently next time you invite someone to go fishing with you?

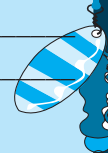
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## Fishing Deeper

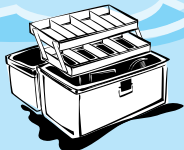
- Plan a fishing experience for a group of people or your family.
- Write a short story about a fishing outing with friends and share it with your helper.





# A Reel Mess!

When was the last time you cleaned your favorite fishing reel? When a reel becomes dirty or gritty it may not work properly and may cause lost fish. Your reel should be cleaned at least annually or when the action becomes hard to work. Have fun learning how to take your reel apart, clean it and put it back together again.



## Tackle Box

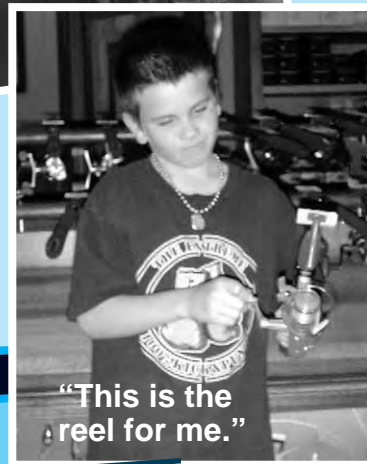
Materials Needed

- Variety of sizes and styles of Screwdrivers
- Needle nose pliers
- Shallow plastic or metal pan
- Spool of fishing line
- Light reel oil
- Reel grease

## Baiting the Hook

This is an excellent activity for you and your helper to do together. Depending on the type of reel and the manufacturer there may only be a few parts or there could be many parts. Tackle Tips includes hints on how to clean your reel. Tape a picture of the type of reel you cleaned and label its parts.

Type of reel I cleaned with parts labeled.



## Know Your Fish

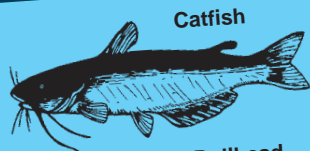
### Catfish and Bullheads

**Other Names for Catfish.** Channel catfish, flathead catfish, blue catfish.

**Description.** Brown bullheads—brown mottled back and flanks fading to an off-white belly. Bullheads are distinguished from other cats by their rounded tail. The channel catfish has a slender body and a silver blue or olive back that slopes to pale flanks and a silvery white belly. Flathead catfish are olive-yellow to light brown.

**Spawning Period.** May, June and July in water between 60° to 70°F.

**Average Size.** The blue catfish is the largest North American fresh water catfish averaging between 35 and 50 pounds with many 100 to 110 pounds. Channel cats average size is three to five pounds. Bullheads average about one-half pound.



**Baits.** *Bullheads*—stink baits, earthworms, crawfish, corn, cheese and pork-rind-tipped jigs. *Flathead catfish*—live suckers, minnows, crawfish, grasshoppers.

*Blue catfish*—live suckers, clusters of shrimp and leeches, frogs, salamanders and water dogs. *Channel catfish*—worms, cheese, dough balls, grubs, marshmallows, cut shad and live minnows fished in the current or along the bottom.



**Type of Water.** *Channel catfish*—large clean lakes and rivers. They can live in any body of water no matter how warm or chemically degraded.

*Flathead catfish*—large bodies of water from reservoirs to big rivers.

*Blue catfish*—prefer large, clear silt-bottomed, free-flowing rivers.



# Sharing Fish Tales

## Castling Out

How did you disassemble your reel?  
How did you clean your reel?

## Working the Lure

What would you do if a part got stuck or a screw broke off?  
What would you do if you forgot in what order to reassemble the parts of your reel?

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## Setting the Hook

What is another time you solved a problem as part of a team?

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## Landing the fish

What would you do differently next time?

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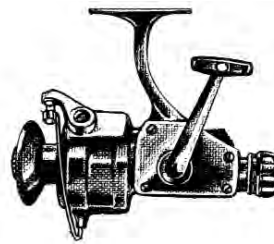
# Tackle Tips

## Cleaning a Reel

- Remove the reel from the rod.
- Remove the old fishing line from the reel spool.
- Begin disassembly by using your tools to remove the reel parts. Place the parts in the pan to keep them from getting lost.
- Clean all the parts using warm soapy water.
- Once the parts are clean, oil or grease all moving parts (take care not to use oil or grease on the drag components).
- Reassemble the reel and reapply fresh fishing line to the reel.

## Types of Reels

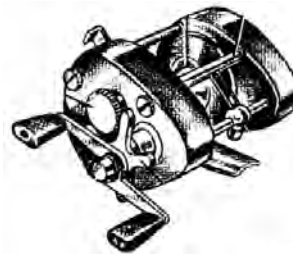
### Spinning



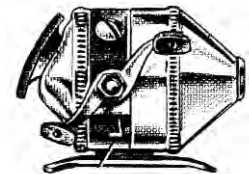
### Fly fishing



### Bait casting



### Spin cast



## Fishing Deeper

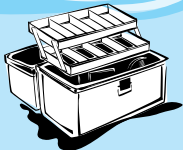
1. Identify the parts of a reel and explain their function to your helper.
2. Interview an experienced angler or knowledgeable fishing tackle salesperson about how to care for reels.



# Designing a Skillathon Station

**Fishing Project Skill:** Design a sportfishing skillathon station  
**Life Skill:** Teaching experientially  
**Success Indicator:** Designs a sportfishing skillathon station that allows youth to learn experientially.

Skillathons are great ways for you to sharpen your helping and teaching skills. A skillathon is simply a series of learning stations at which teams are presented situations and tasks to do. They then work together to complete the task. The idea is for the teams to perform their tasks before being told or shown how. After they demonstrate how they would solve it on their own, then you, as the station facilitator, ask them questions (not give answers) to help them build on their knowledge and skill base. In this activity you will have an opportunity to design a skillathon station and test it with your family or sportfishing project group.



## Tackle Box

Materials Needed

- Equipment for station
- Situations and task sign

## Baiting the Hook

Select a topic that you think would make a good skillathon station. Almost any topic can be made into a good skillathon station. Several possibilities are listed under Tackle Tips. Others can be found in the Helper's Guide under Project meeting Ideas on page 33.

Outline the topic, a realistic situation and a task the team will be asked to do. Now check your station against the evaluation criteria shown. The skillathon model will also help you. Include a photo or drawing of your station.

### Skillathon Station

**Topic:** \_\_\_\_\_

**Realistic Situation:** \_\_\_\_\_

**Task To Do:** \_\_\_\_\_

**Materials Needed:** \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Skillathon Station Evaluation Criteria

- \_\_\_ Only one topic and task
- \_\_\_ Situation is realistic
- \_\_\_ Additional explanation not required by the station operator
- \_\_\_ Task is challenging but fun
- \_\_\_ All materials needed are available
- \_\_\_ Way is provided for team to evaluate its own performance rather than the station operator doing it.

# Sharing Fish Tales

# Angling Tips

## Casting Out

How did you design your skillathon station?

## Working the Lure

What is the value of letting the learner show you what he/she knows before you begin asking questions?

What does it mean to teach experientially?

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## Setting the Hook

How can a skillathon station approach work at a project meeting?

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## Landing the fish

What would you need to plan and conduct a sportfishing skillathon station for your fishing group or at a county fair?

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## Sportfishing Skillathon Station Topics

- Tying an Improved Clinch Knot
- Tying a Woolly Buggler
- Identifying Fly Tying Materials
- Identifying Insects
- Cleaning a Reel
- Golf Course Casting
- Matching Lures to Fish
- Raising Worms
- Making a Watershed
- Identifying Fish
- Rigging a Line
- Presenting a Lure
- Identifying Tied Flies

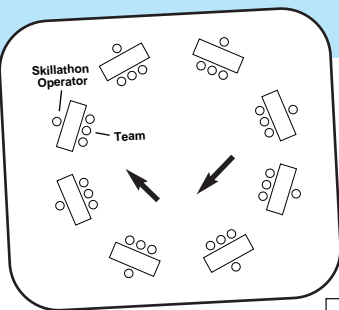
### Example of Situation and Task

**Topic:** Rigging a Line

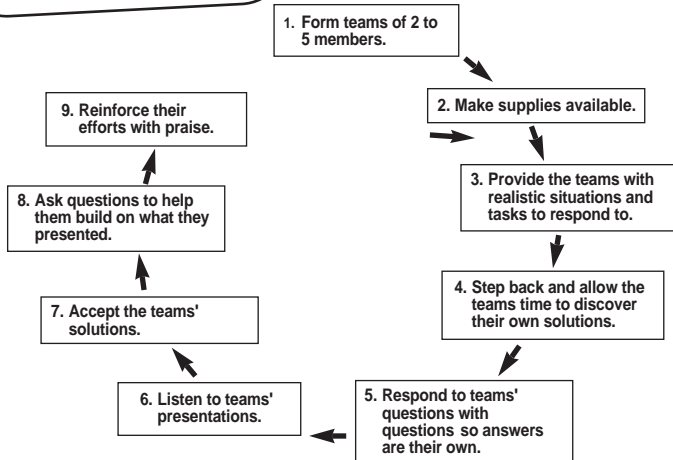
**Realistic Situation:** You are determined to catch a bass using a plastic worm.

**Your Task:** Demonstrate how you would rig the line.

**Materials Needed:** Line, plastic worm, hooks



### Skillathon Model



Fish Talk Words • Skillathon

## Fishing Deeper

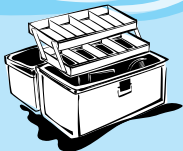
1. Organize and conduct a sportfishing skillathon that has at least five stations for a fishing group.

2. Explain to your helper how the skillathon model and the experiential model (inside front cover) compare.



# Beads, Dog Hair and Feathers

**M**aking your own artificial flies and lures can be a very creative part of the sportfishing adventure. Items to begin your own materials collection can be found everywhere. Remember that anything that can be tied, glued, wrapped or wound on a hook can be used to make artificial flies and lures. Be creative and find what works best for you (and the fish).



## Tackle Box Materials Needed

- Box or container
- Scissors
- Small plastic bags
- Small knife

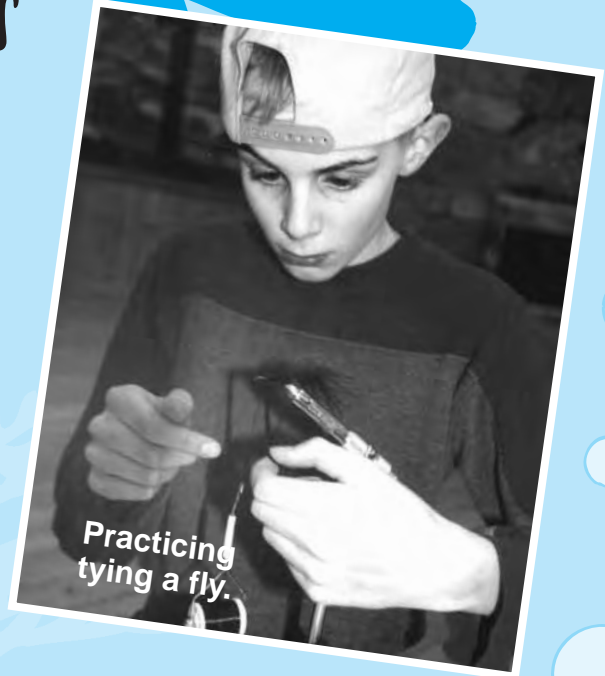
## Baiting the Hook

See what you know about possible materials to use to tie flies and make lures. Match these materials with their potential use. When you have completed the matching exercise see how many different items you can find that you might use to tie flies and make lures. Record when and where you found them.

- \_\_\_ 1. Chenille
- \_\_\_ 2. Beads
- \_\_\_ 3. Fur and Hair
- \_\_\_ 4. Thread
- \_\_\_ 5. Yarn
- \_\_\_ 6. Shiny Objects
- \_\_\_ 7. Feathers

- a. Commonly used types are neck, head and rump
- b. Used as a body component (dubbing) because it gives the appearance of a living insect
- c. Can be used as flashers to catch the attention of a fish
- d. A good material for the fly body and usually is wound or dubbed
- e. Fuzzy material usually obtained from a fly tying shop or fabric store
- f. Can add color, design and movement
- g. Natural or synthetic materials woven together into a long strand

**Fishing Project Skill:** Making artificial flies and lures  
**Life Skill:** Being creative  
**Success Indicator:** Collects materials that can be used to make artificial flies and lures.



Practicing tying a fly.

Fly and Lure Materials Collected		
Item Found	Location	Date

# Sharing Fish Tales

## Casting Out

Where did you find most of the things on your map?  
What problems did you experience in finding materials?  
What other places could you have looked?

## Working the Lure

How do you decide where to start when searching for unknown objects?  
How do you decide whether to keep something or throw it away?

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## Setting the Hook

How does tying flies help you develop your creative talents?

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## Landing the fish

Describe how will you use certain materials to make a particular fly.

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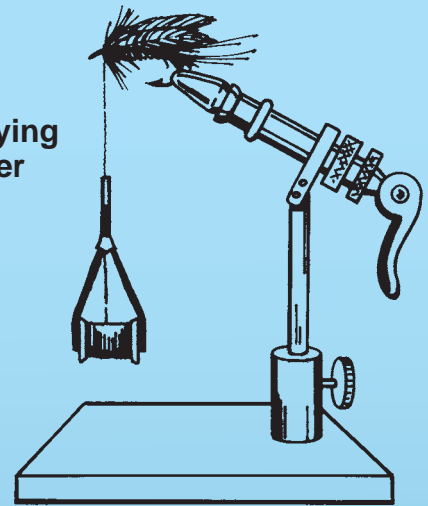
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# Tackle Tips

## Fly Tying Equipment

Fly tying holder



Fly tying bench

## Fishing Deeper

1. Tie a fly using the materials you have collected.
2. Fish with a fly you tied with materials you collected.

