



## Hook Hanging and Lure Repair

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### Objectives

Participating young people and adults will:

1. Successfully complete one or more lures
2. Demonstrate use of split ring pliers and split rings
3. Demonstrate lure making and repair skills
4. Demonstrate basic lure building skills
5. Match hook types and sizes to their purpose
6. Have fun while learning

### Youth Development Objectives

Participating young people will:

1. Enhance self-image and self-confidence by mastering a simple skill
2. Practice sequential operations to achieve goals
3. Practice interpersonal communication
4. Practice fine motor skills
5. Interact in a positive social context with youth/adults

### Roles for Teen and Junior Leaders

1. Provide one-on-one assistance for learners
2. Assist with set up and clean up of work area
3. Discuss personal experiences
4. Teach the lesson with adult participation

### Potential Parental Involvement

1. See “Roles of Teen and Junior Leaders” above
2. Provide teaching location, materials, equipment
3. Arrange for or provide transportation
4. Arrange for or provide refreshments

**Best Time:** Any time; initial tackle crafting lesson

**Time Required:** 20 to 90 minutes

**Best Location:** well lighted work bench or work table area

### Equipment and Materials

painted lure bodies    spoon blades  
 treble and single hooks (appropriate sizes)  
 split rings (sized to needs)  
 split ring pliers    small lure boxes  
 safety glasses for all participants and leaders

### Special Safety Considerations

1. Be acutely aware of hooks and handling of hooks to prevent injuries.
2. Provide boxes to reduce threat of accidents from loosely hanging hooks on lures being taken home
3. Split ring pliers can cause a pinch or cut if improperly used.
4. Split rings can become projectiles if they slip out of the pliers. Safety glasses are advised.

### References

Tackle crafting catalogs  
*Modern Tackle Craft*. C. Boyd Pfeiffer

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## Evaluation Suggestions

1. Observe learning and support as needed
2. Observe attention to detail and mechanics
3. Observe interactions among participants and/or leaders
4. Observe changes in technique and suggest improvements
5. Observe interest and satisfaction of participants

**Note to instructors:** Excellent lighting and an uncluttered light background color in the instructors' clothing and on the work surface is helpful to the learner in seeing what is being demonstrated and in seeing the objects they are handling. Make every attempt to get each learner into a position where they can clearly see what is being done during demonstrations.

## Lesson Outline

Presentation	Application
	<b>LAY OUT</b> the tools and components for each of the lures to be built so every work station has all the components needed.
I. Introducing the tools and components	<b>DEMONSTRATE</b> the use of the tools, pointing out their features and their proper use.
A. Tools	
1. Split ring pliers	
2. Needle nose pliers	
B. Components	<b>DISCUSS</b> the selection of hooks and split rings for the lures being made and <b>ENCOURAGE</b> the participants to <b>DISCUSS</b> the reasons for choosing a particular style or size of hook or split ring for the lure bodies being used.
1. Hooks	
2. Split rings	
	<b>DISCUSS</b> the lures being built and name similar lures available over the counter. <b>NOTE</b> that a wide variety of lure components are available to the tackle crafter.
3. Lure bodies	
II. Making a spoon	<b>LEAD</b> the participants in selecting the appropriate components for assembling a spoon of their choice. <b>NOTE</b> that spoons in the 1/4 to 2/3 ounce class are easiest for the beginning tackle crafter to handle.
A. Select appropriate components	
1. Body	
2. Split ring(s)	
	<b>DISCUSS</b> hook selection in terms of preventing hang-ups, hook setting ability, holding ability and action. Be sure to <b>INCLUDE</b> any local regulations on hook types as well
3. Hook of choice	
a. Siwash or salmon	
b. Treble	
B. Assemble the spoon	<b>DEMONSTRATE</b> the use of the split ring pliers and proper positioning of the pliers to have enough ring left to slip it on the spoon blank.
1. Attach split ring to rear of spoon	
a. Open split ring with pliers	
b. Leave enough gap to place on blank	
c. Slide open side into rear hole in blade	
d. Extend slightly so ring remains open	
2. Slide hook eye onto open end of ring	<b>DEMONSTRATE</b> the process of working the split ring into the rear hole on the spoon blank leaving enough of an opening to attach the hook.
a. Orient hook to ride as desired	
b. Rotate ring while holding hook shank and spoon	
3. Observe completed assembly for proper orientation	
	<b>NOTE</b> that most manufacturers arrange treble hooks so two

4. Attach split ring to front if desired
- III. Making a crank bait or plug
- A. Select appropriate components
    1. Plastic plug body
    2. Split rings
    3. Treble hooks
    4. Split Ring pliers
    5. Needle nose pliers
    6. Small plastic box
  - B. Attach split ring to throat hook
    1. Open split ring
    2. Slide open end over wire loop in body
    3. Slide hook eye onto split ring
    4. Hold body and hook
    5. Rotate split ring until it closes
  - C. Attach tail hook
    1. Repeat steps above with tail hook

- IV. Demonstrate lure repair
- A. Inspect for damage
  - B. Replace damaged or worn parts
  - C. Fill and epoxy any loose screws
  - D. Touch up paint job

### **Summary Activity**

Review the skills developed or practiced in this lesson, and discuss the use of the lures made during the session. Challenge the young people to return for the next session, outlining some of the things that will be done in it.

### **Lesson Narrative**

Hook hanging or basic lure assembly is one of the easiest projects in tackle crafting, and it makes an excellent way to introduce the activities in this part of the Sportfishing Program. It teaches some basic techniques with split rings, a common element in many tackle crafting projects, as well as the use of split ring pliers. It initiates the process of planning the activities required to complete a lure and equips the participant to repair lures in need of replacement hooks or split rings. It can also lead to more comprehensive repairs, like replacing a lost diving lip or dressing up a mangled paint job. These skills will find excellent utility if the tackle crafter goes on to shaping, balancing, painting and fishing their own creations.

### **Making a Spoon**

Select the components for assembling a spoon to match a common use in your area. Spoon blades in the 3 to 6 ounce class are about ideal for this exercise, being small enough to get the open side of a split ring on the rear of the blade easily, but large enough to use a split ring that is easily handled. Lay out the components for the spoons at each workstation with the tools required to complete the task. Each participant should have access to split ring pliers, needle nose pliers, two or three split rings of the proper size, properly sized treble or single hooks, and a spoon blade suitable for local fishing. Providing a small plastic box or tackle box minimized the probability of hooks in the clothing or anatomy.

Discuss the reasons for the hook selection. Note that single hooks tend to penetrate better, allow less leverage to pry the hook loose, and hang up less. Treble hooks may give multiple hookups on the strike, providing a small amount of security. Of course, your selection should be useful in the area. If you decide to allow the tackle crafters to make their own choice, make sure that both types are available to them at the works station.

points are on the bottom and one is vertical on the top. Similarly single hooks are usually oriented so the hook point rides upward or toward the convex surface of the spoon.

Discuss the advantages and disadvantages of using a split ring at attachment point for the line.

Demonstrate the use of the split ring pliers and the split rings, explaining the process as you work through it. Point out the small wedge on the tip of the pliers and explain how it functions to open the ring without springing the metal. Note that the pliers must allow enough of the split ring end to project beyond their jaws to permit it open side to be slipped onto the rear of the spoon blade and through the hole. In most cases this will be about 3 to 4 of an inch with the rings selected for this part of the project. Note that the spoon blade can be used as a wedge as well until the tip of the split ring can be inserted into the rear hole on the blade. Once the ring has entered from the bottom of the spoon through the top of the blade, extend it slightly with needle nosed pliers and slip the eye of the hook over the open end of the ring. Holding both the spoon blade and the hook in one hand, rotate the split ring with the pliers until it snaps shut and the spoon blade and hook are connected by the closed ring. If the ring is sprung by the process, remove it and start again with a slightly larger ring or one of higher quality. An open ring invites loss of fish.

Note that most manufacturers orient the hook so one of the hooks on a treble or the single hook point points straight up, more or less perpendicular to the back of the spoon blade. This approach minimizes hang-ups and provides good hook setting for corner of the mouth or upper jaw holds. Some anglers like to attach a split ring to the front of the spoon as well, feeling that the arrangement allows for greater movement and better fish attraction than does the use of a snap swivel on the spoon. Others maintain that the additional split ring creates a potential weak link in their tackle and may expose their line to a source of nicks or cuts. Some compromise on this point and use an open ring that can be soldered closed to provide a secure attachment point for the line.

#### **Making a Crank Bait or Plug**

Once the use of split rings and split ring pliers is mastered, assembling plugs from pre-cast bodies and other components is relatively easy. Many tackle crafters prefer to place the throat hook or belly hook in place before working on the tail hook on lures that require two hooks. Simply open the split ring and slide the open arm onto the wire or eye. Slide it forward enough to allow the hook to be placed on the spread point of the ring, and hold the hook and body while the split ring is rotated until it locks. Repeat the process with the tail hook, and the lure is finished.

#### **Repairing Worn or Damaged Lures**

Before making repairs on old lures, determine if their collector value, either to you or to someone else, is greater than their value as a working lure. Many old, wooden lures lying in neglected tackle boxes are valued by collectors. If the utility exceeds the collector value, lures can be repaired relatively easily. Start by determining what needs to be done. If, for example, the lure is serviceable but has rusted hooks and damaged split rings, simple replacement of those parts restores the lure to usefulness.

Many older lures are assembled using screws to attach diving bills, screw eyes, or other parts. Every screw should be checked to make sure it is securely attached and tight. Where the holes are worn or the threads are corroded, the lure may literally be torn apart by the strike or struggles of a fish. If the threads are worn, using a slightly larger screw or using a drop of good epoxy cement and a small sliver of wood can tighten the threads successfully. Carefully inspect the screw eyes used to hang hooks. Are they tightly closed, sound and without cracks or other signs of potential failure? If they are, they can be reused. If not, replace them with new parts. Inspect diving bills, hook attachments, spinner mounts, and similar parts to be sure they are sound, properly shaped and functional. If they are not, consider replacement with new parts of similar design. Scarred or worn lures can be painted with either epoxy or lacquer. Simply follow the pattern existing on the lure and carefully cover the damage. If it is deep, consider using an epoxy filler to smooth the contours of the lure and restore its original action before painting or touching it up.

Many modern lures are molded around a stainless steel wire frame. If those wires are badly corroded, worn thin or broken, the lures are best set aside. If they loops are sound and secure, hooks and split rings can be replaced as they were above. Repairs to the plastic finish should be attempted only after determining if the paints or lacquers being considered are compatible with the plastic used in molding the lure body.

More extensive repairs can require replacement of worn or damaged diving lips, hook hangers, cup washers, spinner blades or skirts. Touch up painting can also be indicated on badly worn or damaged plugs. These can be accomplished with a brush or airbrush, matching epoxy, lacquer or acrylic paints to the original patterns and colors. If acrylic paints are used, an epoxy overcoat will make them both brighter and more durable.

### **Exhibit and Sharing Suggestions**

1. Prepare an illustrated talk or demonstration on construction of a spoon or crank bait.
2. Prepare an illustrated talk or demonstration on repair of an old, damaged lure.
3. Prepare a photographic story illustrating the repair of a lure.
4. Prepare a story about a lure used by a parent, grandparent or other person that you restored to usefulness.

### **Community Service Activities**

1. Consider a “used lure roundup” where anglers could donate old lures that could be repaired and used in teaching others how to fish by your club.
2. Offer to assist older anglers with repair or “servicing” of their lures.
3. Assemble lure packets from repaired lures or lures you make for use by young people who cannot afford their own tackle.
4. Prepare a “how to do it” exhibit that teaches people how to repair lures they may have.

### **Ways of Learning More**

1. Study the ways lures are manufactured and the components used by the manufacturer. Consider ways to improve on the designs or components used, and try out your ideas on lures you repair.
2. Investigate the evolution of lure design and manufacture, choosing a particular type of lure as your theme and showing its history to the best of your ability.
3. Study the prey fish feed upon in your favorite waters and attempt to design a lure that will work effectively on them. Consider size, shape, colors, action and design features. Build the lure, working on your design until it works to your satisfaction.

### **Links to Other Programs**

Links to other elements in the Sportfishing Program are obvious. Wood working, folklore, crafts, collections and similar program areas are also easily linked to this activity. Even projects like aerospace, where the movement of objects through air or other fluid media is involved may have a relationship to the extensions of this activity. Let your imagination be your guide, and see where your interests take you.