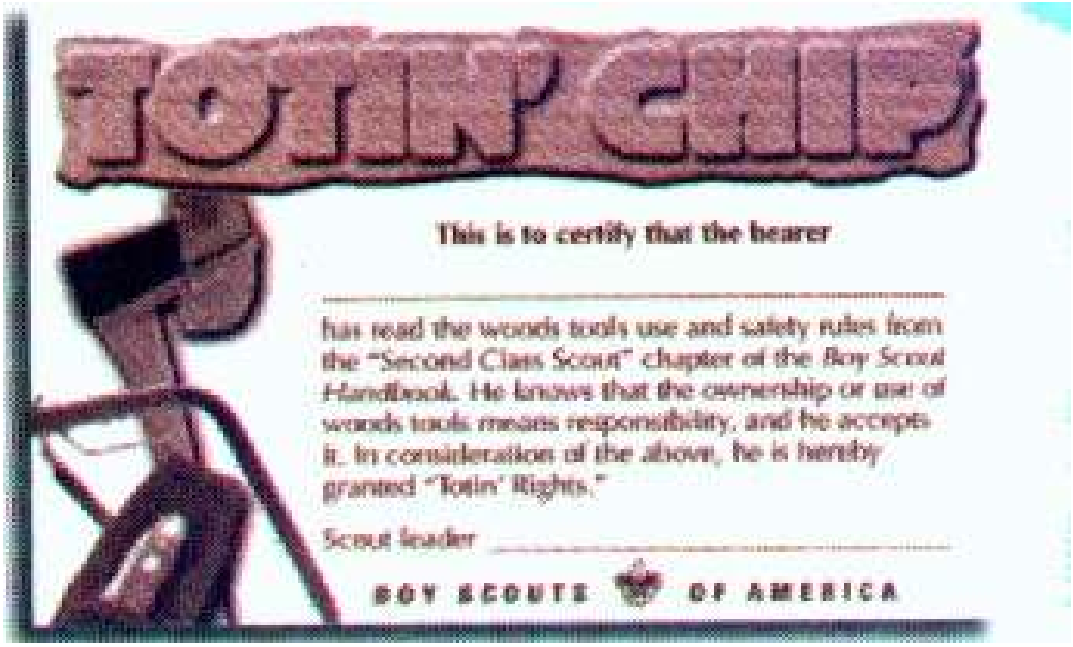
Teaching Syllabus for Totin' Chip

Course Outline

Introduction:
- Welcome & Introduce Self
- What is the Totin' Chip

The Course
- What is covered under the Totin' Chip
- The Outdoor Code
- Basic Wood Tool Safety and Definitions
- How to Use the Tools
    - The Pocket Knife
    - The Camp Saw
    - The Axe
    - Safe Work Area
    - Test
- Demonstrate you ability to use these tools safely
- What happens if you do something wrong
- How do you replace a lost card (by unit)

Group Discussion
- Open Question and Answers about Wood Tools
- Where can you find additional resources



What is the Totin' Chip:

The Totin' Chip is a card issued to a Scout authorizing him to use wood tools. It is like a license or permit that can be revoked if he fails to show proper responsibility.

Wood Tool:

Is any tool used to cut or work with wood. Additionally it could included other tools such as: shovels, hoes, rakes, picks and a variety of other hand tools.

BSA Has set the following requirements for the Totin' Chip

1. Red and understand woods tools use and safety rules found in the BS Handbook
2. Demonstrate proper handling, care, and use of the Ax, Saw and Pocket Knife
3. Use the Ax, Saw, and knife as tools not playthings
4. Respect all safety rules to protect others
5. Respect property. Cut only dead and living trees with permission and good reason
6. Subscribe to the Outdoor Code

I don't personally think this is tough enough when you consider many of these tools can be easily misused turning them into weapons. Thus I have created the following course.

The Totin' Chip Course Covers:

- Axes
- Saws
- Knives (includes kitchen knives)

May also include:

- Other Tools (Shovels, Rakes, Hoes, Picks, etc.)
- Sticks
- Rocks
- etc.

The Outdoor Code:

The Outdoor Code is a creed an oath to remind a Scout of the importance of caring for the environment.

AS AN AMERICAN, I WILL DO MY BEST TO -

BE CLEAN IN MY OUTDOOR MANNERS,

I will treat the outdoors as a heritage. I will take care of it for myself and others. I will keep my trash and garbage out of lakes, streams, fields, woods, and roadways.

BE CAREFUL WITH FIRE,

I will prevent wildfire. I will build my fires only where they are appropriate. When I have finished using a fire, I will make sure it is cold out. I will leave a clean fire ring, or remove all evidence of my fire.

BE CONSIDERATE IN THE OUTDOORS,

I will treat public and private property with respect. I will use low-impact methods of hiking and camping.

AND

BE CONSERVATION-MINDED.

I will learn to practice good conservation of soil, waters, forest, minerals, grasslands, wildfires, and energy. I will urge others to do the same.

Basic Wood Tool Safety and Definitions

The most important thing when using any tool is - Safety, Safety, Safety.

- Blood Circle: - a method of safely moving the tool around you to determine if your work area is free of obstacle that could cause potential problems.
- AX Yard: - an Ax Yard is a marked off area, possibly with rope, to form a safety barrier. The idea is no one except the person using the tool is inside, this keeps other from being accidently hit and or hurt.
- "Thank You": - the magic words of working with tools. If you decide to gave a tool to someone, you will not let go of it until the other person say "Thank You" letting you know that - that person has it and will not drop on you or anyone else.
- Carrying the Tool: - there are proper and not so hot ways to carry tools. For example a shovel should be carried at your side with your hand half way down the handle with the shove blade down but out in front of you. While a hand ax the blade is carried in the hand, and a large ax you carry with the blade facing the ground and your hand about halfway on the handle so that it is angled to the ground.
- If you are working in an unsecured area such as a trail use "Coming Through" and "Go For It". "Coming Through" tells someone near by that you will be passing through his work space. "Go For It" tells you that person has acknowledged that you are their and has stopped working to let you safely pass through.
- Gear: - What type of gear should you have and or wear when working with these tools. For example if you are using an Ax shouldn't you be wearing boots to protect your feet, long pants to protect your legs, long sleeve shirt to protect your chest and arms, gloves to protect your hands, goggles to keep flying wood out of your eyes, and a hard hat to keep a branch from knocking you silly. This may seem a little over kill and it might be, until one or all of these things could have save you from a lot of pain and your life.
- Tool Wheel: - The tool wheel is a method of storing all the tools in one place safely. You do this by laying tools down one after the other to form a circle, some tools are safer if standing up, place these in the center of the circle.

BSA Does not allow Scouts, Scout Leaders or anyone else at any Scouting function to carry or use a knife bigger then 4 inches and it must fold.
The Guide to Safe Scouting states
Knives
"A pocket knife ... is an invaluable backcountry tool. Keep it clean. Avoid sheath knives... Since it is inception, Boy Scouting has relied heavily on an outdoor program to achieve its objectives. This program meets more of the purposes of Scouting they any other single feature. We believe we have a duty to instill in our members, the knowledge of how to use, handle, and store legally owned knives with the highest concerns for safety and responsibility."

Remember safety first, and safety always!
When used improperly tools can be very dangerous. We can replace tools but we cannot replace eyes, arms, legs or people...

Upon completion of the lesson, the student should have obtained the knowledge of:

1. How to select, care for, sharpen, and use a pocket knife.
2. How to use and care for a camp saw.
3. How to care for, identify the part of, sharpen, and use an axe.
4. Will demonstrate the use of a pocket knife, camp saw, and axe.
5. Will demonstrate the sharpening of a knife and axe.
6. Safety expectations when using all camp tools.

I Pocket Knife

A. Selecting a pocket knife.
   1. Should have a minimum of; 1 or 2 cutting blades, can opener, flat bladed screwdriver.
   2. A locking devise for all cutting blades.
   3. Should be made of a material which will not rust. i.e.; Stainless steel
   4. More accessories are not usually good.

B. Care of the pocket knife
   1. Wash with soap and water, and rinse after using to cut food, make sure to dry.
   2. Keep inside clean of dirt.
      a. Open all blades and accessories.
      b. Using a toothpick and a small patch of lightly oiled rag, clean the blade storage area.
      c. Using a light oil, slightly oil all hinges.

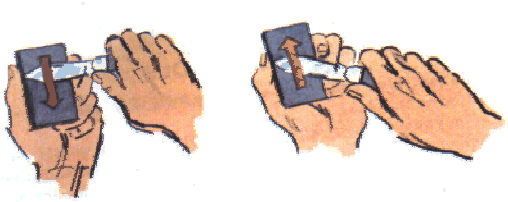
C. **Do's** for pocket knives.
   1. Keep blades closed except for when using them.
   2. Keep your fingers clear of the sharp edge as you open and close the blade.
   3. Cut away from your body.
   4. Close the blades before you pass the knife to someone else.
   5. Keep the knife sharp and clean. A sharp blade is easier to control then a dull one.
   6. Obey any school regulation that prohibits carrying knives on school property.

D. **Don't** for pocket knives.
   1. Don't carry any knife with the blade open
   2. Don't throw a knife.
   3. Don't cut toward yourself, or toward anyone else.
   4. Don't strike a knife with any other tool or pry with the point of a cutting blade.

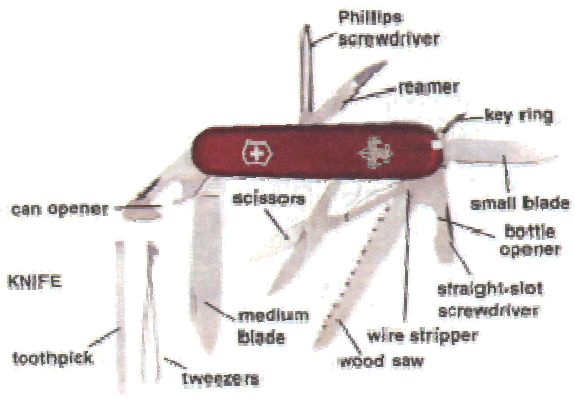
   Note: The Boy Scouts of America does not encourage the use of large sheath knives.

E. Sharpening of knives.
   1. Use a *whetstone* or *oilstone*.
   2. Hold the blade at a 30 degree angle to the stone, 1/3 from vertical.
   3. Using a circular motion move the blade around the stone using moderate pressure.
   4. Wipe the blade clean with a cloth.
      a. When looking straight onto the blade in sunlight or a bright light a dull blade will look shiny. A sharp blade will have no shine at all.

F. Demonstrations:
   1. Using a whetstone or oilstone, have the student demonstrate the proper method of sharpening at least one blade.
   2. Using proper technique and safety, have the student demonstrate how to make a fuzzy stick, using his pocket knife.



Sharping A Knife



II Camp Saw

A. Camp saw is the proper tool for most outdoors wood cutting.

B. Types of saws.
   1. Folding saw has a blade that folds into the handle of the saw.
   2. Bow saw has a metal frame that the blade is tightly suspended between.

C. When cutting downed wood (firewood).
   1. Brace the piece of wood against a chopping block, sawhorse, or other solid support.
   2. Use long, smooth strokes.
   3. Let the weight of the saw pull the blade into the wood.

D. When cutting standing wood (Tree trimming).
   1. Never cut from a live tree without the permission of the ranger, property owner, property manager, or scoutmaster.
   2. First make an undercut on the bottom of the limb to be cut, then cut from the top. This will keep the saw from binding and bark stripping.
   3. Cut close to the tree trunk.
   4. When cutting saplings cut close to the ground.

E. **Do's** for camp saws.
   1. Do keep the saw sheathed whenever it is not in use.
   2. Do Carry a saw with the blade turned away from your body.
   3. Do replace blades when they become dull. Sharp saws are easier to use and control.
   4. Do use care when passing a saw to another person. Always turn the blade away from both persons.
   5. Do Wear gloves and protective eyewear whenever using a camp saw.

F. **Don't** for camp saws.
   1. Don't cut any trees, alive or dead with permission.
   2. Don't allow the saw's blade to cut into the ground. Soil and rocks will quickly dull the teeth.
   3. Don't leave a saw lying around camp.

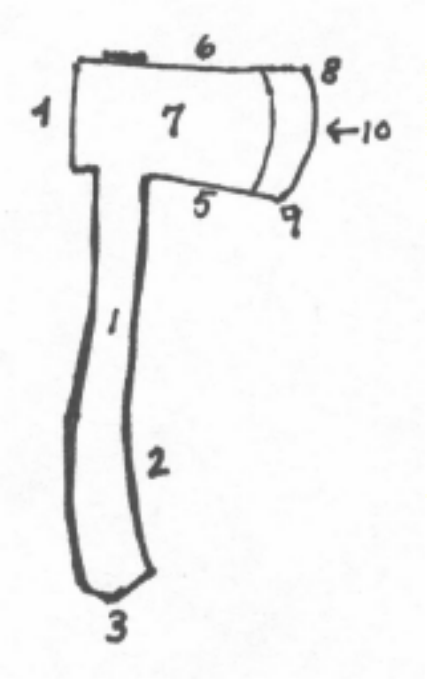
Note: Always sheathe and put away the saw, gloves, and eye protection when finished.

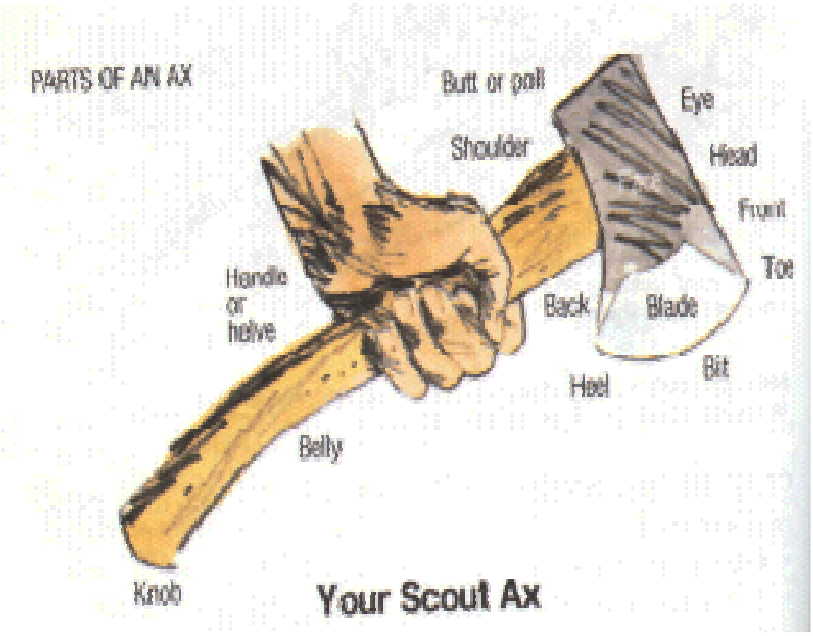
G. Demonstrate the proper and safe way to cut firewood of at least 3 inch diameter.

III. The Axe

A. An axe must be in top condition. If the head is loose, handle is cracked, or the blade is dull, DON'T USE IT.

B. Parts of the axe.



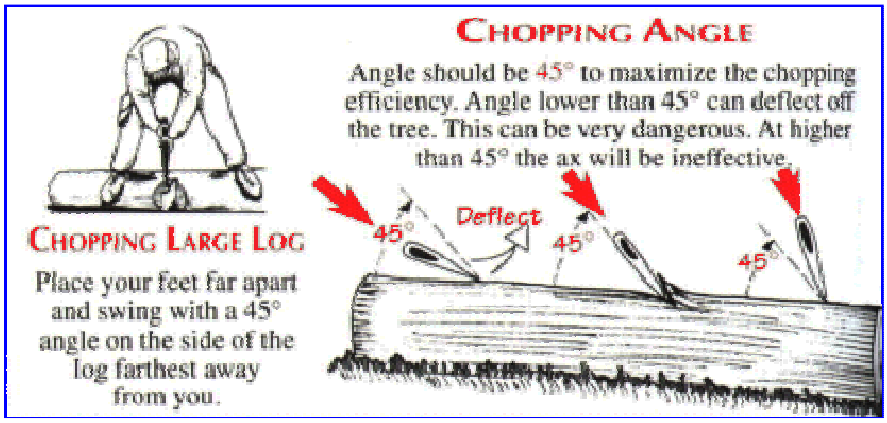


1. Handle
2. Belly
3. Knob or Deer's foot
4. Butt or pell
5. Back
6. Front
7. Face
8. Toe
9. Heel
10. Bit

C. Swing of the axe.
   1. Wear gloves and protective eyewear whenever using an axe.
   2. Securely hold the belly of the handle in one hand, (right handed people hold with the left hand).
   3. With the other hand grasp the handle just under the head of the axe.
   4. Position the axe about eye level.
   5. Bring the axe down with a smooth motion allowing the upper hand to slide down the axe handle to meet the stationary hand which on the belly of the handle.
   6. Allow the weight of the axe to do the cutting.

D. Limbing.
   1. Cutting branches off a log.
   2. Stand on the opposite side of the log as the limb to be removed is.
   3. Cut close to the log.
   4. Keep the log between you and your cuts.

E. Bucking.
   1. Cutting through a log.
   2. Cut a "V" notch twice the width at the top as the log is thick.
   3. Use proper swinging technique.
   4. Keep you eye on the spot you wish to cut.



F. Splitting wood.
   1. Splitting a log lengthways.
   2. Use a chopping block. Flat wooden surface.
   3. Stand the log to be split on the chopping block.
   4. Select an *age crack.*
      a. An age crack is a natural split through the diameter of a log caused by the drying of the wood.
   5. Using proper swinging technique bring the axe down striking the log at the age crack.
   6. Remove the log from the axe, reposition on the chopping block, and use the swinging technique again.
   4. Select an *age crack.*
   7. Never swing the axe while the log is still attached to the blade.

G. Contact method for stick splitting.
   1. Used to split a small stick of wood.
   2. Best to use a hand axe.
      a. Place the bit of the axe against the end of the stick.
      b. Bring the axe and stick down together against the chopping block.
      c. Twist the axe to break the pieces of the stick apart.

H. Carrying of the axe.
   1. Always place the sheath on the axe before carrying.
   2. Grasp the axe by the handle just under the head of the axe.
   3. Carry the axe with the blade turned away from yourself.
   4. Never carry and axe over your shoulder.

I. Passing the axe.
   1. Always place the sheath on the axe before passing it to another person.
   2. Grasp the axe by the knob of the handle.
   3. Turn the blade away from the two persons. To the outside.
   4. "Thank you, I have it". The receiving person always uses the line, "Thank you, I have it" before the axe is released to him. This is an indication that he has total control of the camp tool.

J. Sharpening the axe.
   1. Use a 8 or 10 inch mill bastard file to sharpen the axe.
   2. Wear leather gloves to protect your hands and use a knuckle guard on the file.
   3. Place the axe head against a log of about 6 inches diameter. Use 2 pegs or tent stakes to secure it at the butt.
   4. Place the file at a 30 degree angle against the blade and push it into the bit.
   5. Sharpen with firm, even strokes.
   6. Lift the file from the bit when recovering from a stroke.
   7. Turn the axe around and sharpen the other side of the bit.
      a. When looking straight onto the bit in sunlight or a bright light a dull blade will look shiny. A sharp blade will have no shine at all.

K. **Do's** for axes.
   1. Do keep the axe sheathed whenever it is not in use.
   2. Do Carry an axe by the handle just under the axe head, and with the blade turned away from your body.
   3. Do keep your axe sharp. Sharp axes are easier to use and control.
   4. Do use care when passing an axe to another person. Always turn the blade away from both persons.
   5. Do Wear gloves and protective eyewear whenever using an axe.

L. **Don't** for axes.
   1. Don't cut any trees, alive or dead with permission.
   2. Don't allow the axe blade to cut into the ground. Soil and rocks will quickly dull the axe.
   3. Don't leave an axe lying around camp.

M. Demonstrations:
   1. Using a mill bastard file, have the student demonstrate the proper method of sharpening.
   2. Using proper technique and safety, have the student demonstrate limbing, bucking, and splitting wood.
   3. Using proper technique and safety, have the student demonstrate the proper carrying and passing of an axe.

IV. Safe work area.
   A. Emphasize the fact that the pocket knife, saw, and axe are TOOLS not play things.
   B. A safe work area is a necessity for use of an axe and saw.
   C. A safe work area consists of:
      1. An area which is free of brush and branches.
      2. An area which is at least 10 feet in diameter.
      3. An area which provides all the safety equipment necessary, gloves, eye protection, tool storage.
         a. Only the person operating the camp tools is allowed in the safety area or *Axe Yard.*
         b. When finished the safety area is cleaned of all wood chips, bark, and other debris.
         c. Make sure that all tools are properly stored when finished.
      4. Axe Yard
         a. On long term camps or when lots of fire wood is required, construct an axe yard. Rope off an area large enough to provide a safe working area. Only enter the axe yard to saw or chop wood. Again apply all rules to the axe yard as you do to the safe working area.

V. Written Testing.

What happens if you do something wrong

If someone is using the tool incorrectly there are a few things you can do depending on the severity of the problem. Of course the first thing to do is stop it right there and then.

What can you do to the individual:

You may remove a corner on the Totin' Chip, for normal problems
You may remove 1 to 4 corners depending on the severity of the problem

Once the individual has lost all 4 corners that individual has lost the right to use any tools, until he has re-earned the Totin' Chip. Each unit has its own way of doing this, the most common being just retaking the course (this is the BSA recommend method), or some other units make the individual teach the course.

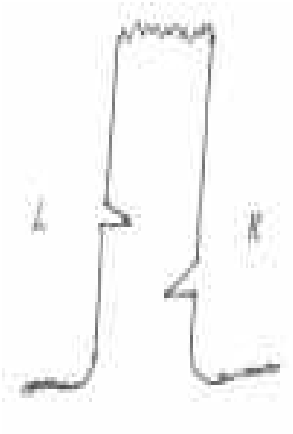
Totin Chip Quiz

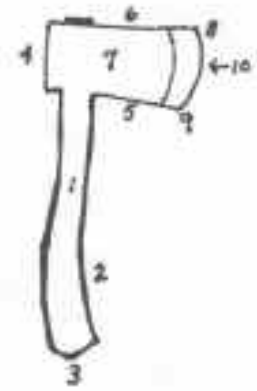
Scouts Name: _____ Patrol: _____

Date: _____ Score: _____%

Question Number	Circle the correct	Question
1	T or F	A sheath knife (hunting knife) should be always worn over the hip pocket, never in front.
2	T or F	Always keep knives, hand axes, axes, and saws sheathed when not in use.
3	T or F	Never use your hand axe as a hammer.
4	T or F	A standard Boy Scout Hand axe has a ten pound steel head.
5	T or F	A 3/4 Axe is designed to be used with one hand and is Dangerous to swing with two hands.
6	T or F	Wooden or metal wedges can be used to keep the steel head tightly fastened to the wooden handle of an axe.
7	T or F	When removing limbs from a fallen tree with an axe or hand axe, always chop toward the top of the tree.
8	T or F	Before chopping with a hand axe, make sure the handle has a light coating of oil on it.
9	T or F	Always clear one axe length around a tree before felling it.
10	T or F	When handing a pocket knife to someone else, always hold on to the handle and turn the blade down.
11	T or F	When your hand axe is dull, use a small file (5" ignition file is good) and file back and forth across the bit.
12	T or F	The tree shown in illustration #1 will fall to the left.
13	T or F	The notches shown in the tree in illustration #1 are called "box cuts".
14	T or F	On lookers should be at least two axe lengths away when felling a tree.
15	T or F	A knife should be sharpened with a dry stone.
16	T or F	When passing an axe the blade should be pointed away from both persons.
17	T or F	When carrying an axe you should carry it by the knob of the handle.
18	T or F	When passing a knife, axe, or saw the receiver should state, "Thank you, I have it".
19	T or F	When at camp the proper storage for an axe is to place it's bit into a sturdy log.
20	T or F	To prevent cuts from a knife it is best not to sharpen it too well.
21	T or F	Since a pocket knife is only for personal use it is not considered a camping tool.
22	T or F	If possible it is best to split wood on a concrete pad or block.
23	T or F	You need not worry about leaving an axe out in the rain if it has been properly cared for.
24	T or F	A blade protector for a saw may be made out of a section of old garden hose.
25	T or F	When splitting wood it is proper to use a 8 to 10 pound sledge hammer to drive your axe through the log.
26	T or F	A good axe man should be able to hit the bulls eye of a 4 foot target from a distance of 25 feet.

27	T or F	Protective eyewear should be worn when using an axe.
28	T or F	A mushroom head is a sure indication that an axe has been abused and misused.
29	T or F	If the handle of a 3/4 axe has a split in it that measures less than 15% of the thickness of the handle it is still considered safe to use.
30	T or F	A double bladed axe is recognized by the Boy Scouts of America as a camp tool.
31	T or F	Features on a pocket knife should include a locking blade.
32	T or F	The quickest and safest way to cut through a 4 inch thick log is with a saw.
33	T or F	Scouts should never consider purchasing wood when there is plenty of dead fall around the campsite.
34	T or F	If it is necessary to prune branches from a live tree, one should first make an undercut with the saw to prevent stripping of the bark.
35	T or F	If an axe handle become loose you should soak the head of the axe in salt water to tighten it up.
36	T or F	When a Scout reaches the rank of First Class it is no longer necessary for him to carry a Totin Chip card since he has already demonstrated his knowledge of knife and axe through his First Class requirements.
37	T or F	In an emergency a sheath for an axe may be made out of a crushed tin can.
38	T or F	A wet stone should be lightly coated with a light weight oil.
39	T or F	When sharpening a knife one should use a circular motion.
40	T or F	To test the sharpness of a sheath knife one should attempt to shave a small section of their arm.
41		In illustration #2 which number refers to the BIT.
42		In illustration #2 which number refers to the FACE.
43		In illustration #2 which number refers to the TOE.
44		In illustration #2 which number refers to the HANDLE.
45		In illustration #2 which number refers to the HEEL.
46		In illustration #2 which number refers to the BUTT.
47		In illustration #2 which number refers to the FRONT.
48		In illustration #2 which number refers to the BACK.
49		In illustration #2 which number refers to the BELLY.
50		In illustration #2 which number refers to the KNOB





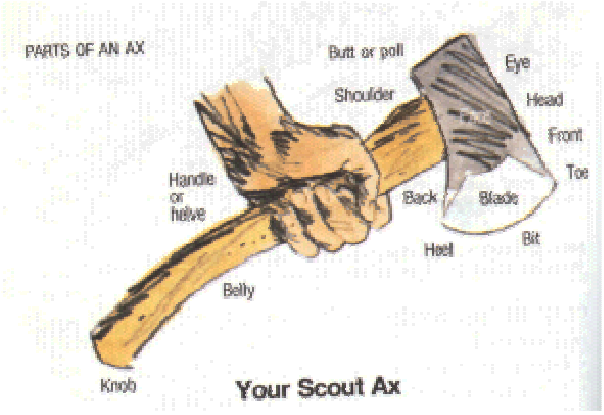
Knife and Axe Quiz

1	T	14	T	27	T	40	F
2	T	15	F	28	T	41	10
3	T	16	T	29	F	42	7
4	F	17	F	30	F	43	8
5	F	18	T	31	T	44	1
6	T	19	F	32	T	45	9
7	T	20	F	33	F	46	4
8	F	21	F	34	T	47	6
9	T	22	F	35	F	48	5
10	F	23	F	36	F	49	2
11	F	24	T	37	T	50	3
12	F	25	F	38	T		
13	T	26	F	39	T		

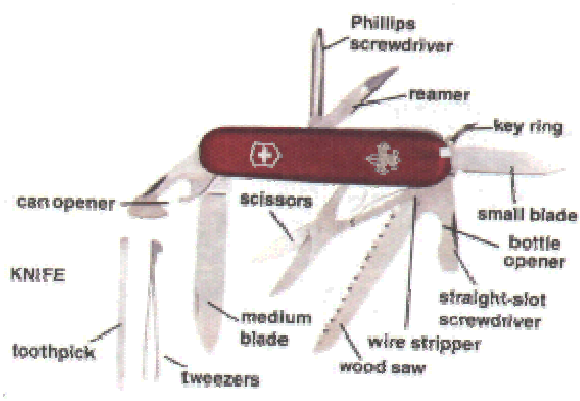
Tool Care

This is the second most important thing when it comes to tools, safety being first. If your tool is not in good working order, it could result in great injury to those around you.

The first part to caring or repairing anything is to know its parts.



For Example the Ax



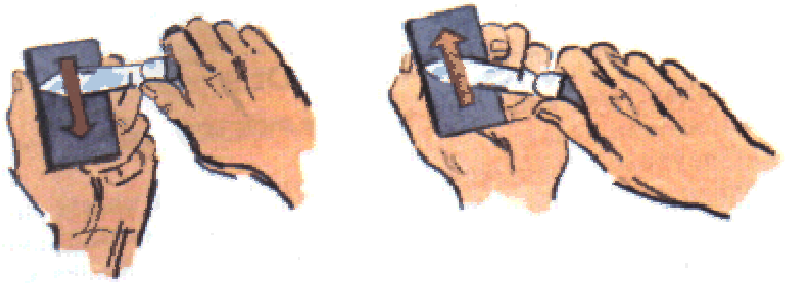
For Example the Swiss Army Knife

There is many things that could go wrong with a tool, the bellow chart outlines a few of them.

The Problem	How to Fix
Dull	Sharpen the blade. Also remember things like shovels, hoes and McLeods need to be kept sharp, too. (FMI "Sharpen your knife")
Lose Head and Handle	Check handle to make sure it is still in good shape, including its strength. If it still seems to be in good shape tighten the head by adding a wedge into the spot where the handle meets the tool. Soaking it in water works for a short time.
Lose Knife Blade	If the knife is in good condition, but the blade is lose, in other words while holding the knife in one hand and the tip of the blade in the other hand you can wiggle the blade. To fix place the rivet of that blade on a hard (preferably metal) surface and lightly tap the rivet with a hammer 2 or 3 times. Be careful not to damage the knife.
Tool is Dirty and Rusty	Clean the bulk of the dirt off with a wire brush and maybe some water. Use a clean rag to get the rest of the dirt off. If the tool is rusty use some oil like 3 in one or WD40 and sandpaper to get it off. Dry the tool and place a good thick layer of oil on it. Paint may help protect the tool. For small tools like a knife use Q-tips and oil to clean.
Broken Handle	To replace a broken or weak handle, you must first work the old handle out of the tool - this is the hardest part. I have found using a drill to remove the center of the handle works the best. Clean inside the "eye" (where handle and tool meet). Try to insert the handle - it will probably be to big, if it is whittle it away little at a time until it fits snugly. Once the handle is in the tool, secure it with a wedge.
Weaken Tool	If it is a replaceable part - the replace it, otherwise safely discard the tool and replace it.

Most of us know how to properly sharpen a knife, but here is a bit from the Official Boy Scout Handbook to help us remember.

Sharpen your knife with a *whetstone* (a sharpening stone). Depending on the stone, will depend if you leave it dry, use a little water, or a tad of oil. Top sharpen a knife, hold the blade against the stone at about a 30 degree angle. That means that back of the blade will be tilted of the stone one-third of the way to vertical. Push the blade along the stone as though your slicing a layer off the top of the stone. Make sure you sharpen each side of the blade the same number of times, to make the blade as sharp and durable as possible. Then whip the knife off with a clean cloth, and your done. The below graphic might help you.



Sharping A Knife

Getting a feel for the common problems of a tool makes you wonder why most people don't check their tool before using it. The California Conservation Corps suggest you inspect the tool before using it. They use the 4 S's which are:

STRAIGHTNESS

Hold the tool upright, and look down it's handle is it straight? A warped handle can be dangerous.

SMOOTHNESS

Carefully run your hand down the handle making sure there are no rough spots or splinters.

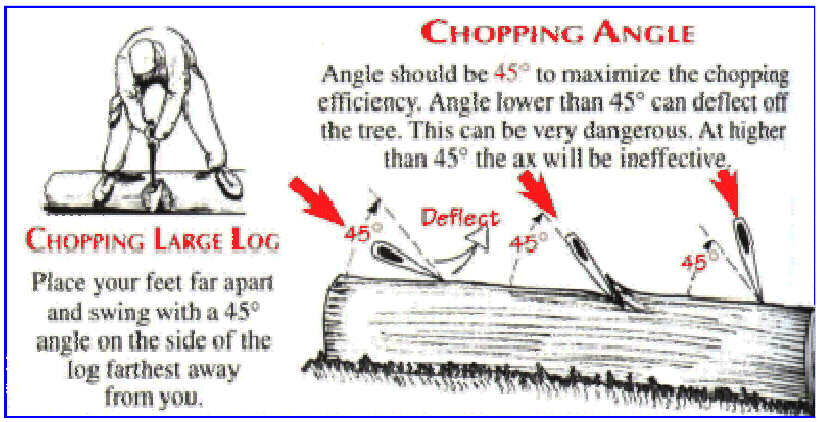
Set the head of the tool on the ground at a 45 degree angle and left the butt of the handle, and then press it down in the middle of the handle. If the handle doesn't crack or bend it is fine.

SHARPNESS

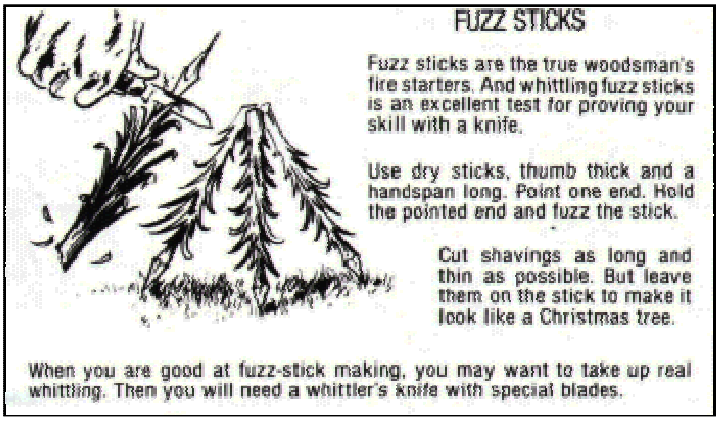
Check for sharpness visually. When a tool is sharp the cutting edge is shinny and smooth. NEVER RUN YOUR HAND ALONG THE BLADE.

How to use the tools

Using the tool is probably the most thought of part, but as you have seen it is not the first all though it is equally important with the other parts. We all know that when you are using a knife you always cut away from yourself, when using an ax you cut at an angle to form a "V" in the wood, and when using a saw you cut in long even strokes with the front part of the blade lower then the back.



After teaching about how to use the tool safely and care for it have everyone **Demonstrate their ability** to use the tools. This not only gives them hands on experience, it give you a chance to correct any problems they might have in using the tools.



What happens if you do something wrong

If someone is using the tool incorrectly there is few things you can do depending on the severity of the problem. Of course the first thing to do is stop it right there and then. What can you do to the individual:

You may remove a corner on the Totin' Chip, for normal problems

You may remove 1 to 4 corners depending on the severity of the problem

Once the individual has lost all 4 corners that individual has lost the right to use any tools, until he has re-earned the Totin' Chip. Each unit has its own way of doing this, the most common being just retaking the course (this is the BSA recommend method), or some other units make the individual teach the course.

Quick Quiz

Trick Questions:

1. Would you ever run in camp with an open knife in your nose
2. How about behind you ear
3. What about in your pocket
4. Would you ever run with an open knife in your shoe
5. Or maybe your pocket
6. May you run with a closed knife in your pocket

Answer:
1 - 6 = NO
Even number 6, we are in camp and there is no running in camp

Serious Questions

1. Would you pass a knife with the blade open

   (No, always pass a knife with the blade closed)

2. Would you swing an ax like Paul Bunyan, past your shoulder

   (Never, swing an ax no higher then you shoulder)

3. Is 3 in One oil good for Sharpening an Ax

   (No, you sharpen an ax with a file, those you don't need oil)

4. What are the parts of a knife

   (The body, lock, blade, bit, joint, screwdriver, etc.)

5. How would you sharpen a saw

   (By using a small file and file each side of each tooth at its angle, or be like me and just replace it)

6. Which is safer:
   - A Dull and clean knife (a sharp knife is always better, but clean is good)
   - A sharp and dirty knife (a sharp knife is great, but a dirty one is suicide)

(The best choice isn't list that being a *sharp and clean* knife)