



**BOY SCOUTS OF AMERICA**  
**Troop 146**  
St. Francis Church  
308 Jefferson Street  
Hoboken, NJ 07030  
www.Troop146.org

## **Second Class Requirement 2c** **"Demonstrate how to build a fire"**

**(NOTE: You MUST take this quiz before working on a Firem'n Chit)**

\_\_\_\_\_ Name

### **Part 1 - Fire Safety**

1. What is a Firem'n Chit?  
 A card you must earn before you are allowed to build or tend a camp fire.  
 It is a card that says you have earned the Fire Safety merit badge.  
 It is a form of money used at summer camp to "buy" precut fire wood.
  
2. Before lighting a fire you must make the fire area safe:  
 Clear all burnable material within a ring 10 feet in diameter.  
 Tell everyone not involved with the fire to stand 10 feet back.  
 Make a "fire yard" by roping off an area around the fire ring.
  
3. To be prepared for a fire emergency:  
 Know where the ranger's cabin is.  
 Be sure to have a bucket of water near the fire.  
 Park your car or van pointing out so you don't have to waste time backing and turning.
  
4. Why does the Scout handbook say, "Never leave a lighted stove unattended?"  
 Food will spoil if it is half-cooked when the LP gas canister runs out.  
 Food might boil over and get baked onto the stove, making it impossible to clean.  
 The stove might flare up and start a fire, which no one will be around to put out.
  
5. When the Scout handbook says, "No fires in tents", what does that mean?  
 No candles, no matches, no stoves, no heaters, no lanterns -- period.  
 Lanterns are OK because the flame is inside a globe, but the others are prohibited.  
 Catalytic heaters are OK because there's not really a flame, but the others are prohibited.

6. When talking about a putting out a fire, the Scout Handbook uses the words "cold out". What does "cold out" mean?
- \_\_\_ Someone is out cold because he was overcome by smoke.
  - \_\_\_ The ashes are so cool that you can touch any part of the fire area and not get burned.
  - \_\_\_ It's a short form of the expression, "When it's cold outside, even the smallest fire seems warm."

**Part 2 - Lighting a Fire - See pages 388-390**

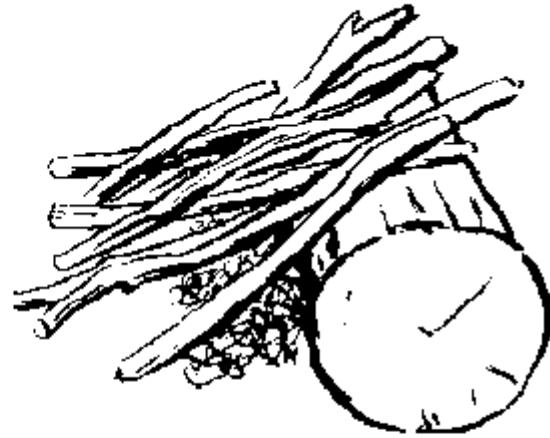
**A WORD OF CAUTION!!!**

**Our campfires are not playthings!  
 Don't do anything stupid or dangerous around a campfire!  
 The Troop treats this rule seriously!**

7. **Don't set fire to anything until your preparations are complete.** First prepare by gathering the three kinds of burnables, which are:
- \_\_\_ 1st degree, 2nd degree, and 3rd degree burnables.
  - \_\_\_ Balls of newspaper, lighter fluid, and charcoal briquettes.
  - \_\_\_ Tinder, kindling, and fuel wood.
8. What's the name of the first burnable that catches fire easily and burns fast? How much should you gather as preparation?  
 It's called \_\_\_\_\_  
 Gather \_\_\_\_\_ hatfuls
9. What's the name of the second burnable consisting of dry, dead twigs, no thicker than a pencil? How much should you gather as preparation?  
 It's called \_\_\_\_\_  
 Gather \_\_\_\_\_ hatfuls
10. What's the name of the third burnable that can be as thin as your finger or as thick as your arm?  
 It's called \_\_\_\_\_
11. **Don't set fire to anything until your preparations are complete.** First prepare by arranging your burnables into a "fire lay" Which of these patterns is the best one to use? (see the drawings on the next page)
- \_\_\_ Teepee fire lay.
  - \_\_\_ Criss-cross or "cabin" fire lay.
  - \_\_\_ Lean-to fire lay.
  - \_\_\_ They're all OK.



**Teepee fire lay**



**Lean-to fire lay**



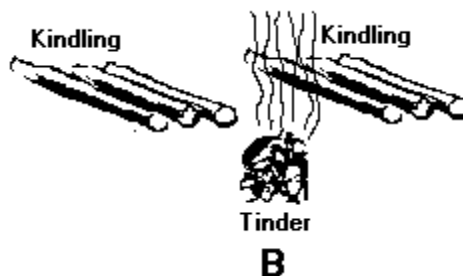
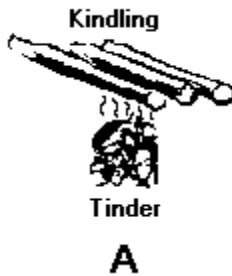
**Criss-cross fire lay**

12. When laying out your burnables: put the tinder down first. Then put the kindling ABOVE the tinder. Then put the fuel wood ABOVE the kindling. Then set fire to the bottom-level tinder. Why is each layer placed ABOVE the previous layer? Why not below it or next to it? *(Choose any 3 answers)*

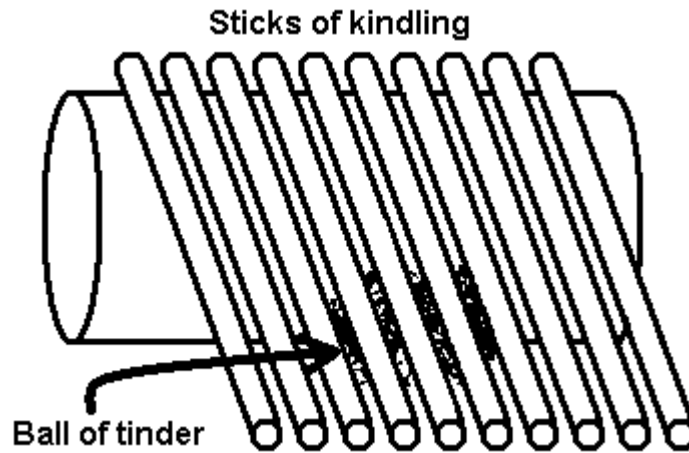
- Heat rises, so each layer will set fire to the layer ABOVE it
- Heat rises, so each layer will set fire to the layer ABOVE it
- Heat rises, so each layer will set fire to the layer ABOVE it

13. Which of these two fire lays has a better chance of success?

- "A" is better because heat rises.
- "B" is better because heat goes sideways.



14. What's wrong with this lean-to fire lay? (hint: heat rises)
- 



15. "Live wood" burns poorly, so we always use dead wood. How do you tell them apart?

- Live wood is colored green, dead wood is brown or black.
- Live wood is attached to trees, dead wood lies on the ground.
- Dead wood snaps cleanly when you break it, live wood bends and splinters.

16. Does wind help you or does it cause problems when you are trying to start a fire and keep it going?

- Wind helps, because wind will fan the flames. Ask any forest ranger, and he'll tell you that wind makes a forest fire burn faster and hotter.
- Wind causes problems, because wind will put out a fire just like a person blowing out a candle.