



**Staff Name:**  
**Zone:** Bushcraft  
**Ability Range:** NC Level 1-4  
**Target Group:** BESD Students

**Date:**  
**Lesson Reference:**  
 Week 5  
 'Fire Lays'

#### Learning Objectives:

- To be able to build a fire in a number of locations using whatever is available.
- To explore the six different ways of making a fire.

#### Learning Outcomes:

- To be able to light a fire using at least 3 different methods.
- To be able to split wood in a safe and predictable way.

**Challenge:** To continue to work using safe practices/"STOP" command.

**Differentiation:** Support from teaching assistant, visual aids, access to the internet.

**AFL:** Refer to scheme of work.

#### Development of Skills/Cross Curricular Links:

##### LITERACY/COMMUNICATION

Reinforcement of key words, development of discussions through describing tasks and group activities.

##### ENTERPRISE

Communication, team work, using initiative.

##### PSHE

Development of environmental awareness.

#### STARTER ACTIVITY

Register the students and share the learning objectives with them.

Explain the task to the students. Emphasise the need for safe working practices and the steps that should be taken to ensure everyone's safety. Reiterate messages from previous lesson, including the use of the "STOP" command.

#### MAIN PART OF LESSON

**Activity 1:** Demonstrate how to lay/build a fire, taking into account prevailing conditions and the safety of others. Students to be shown the 6 ways of making a fire (A,B,C,D,E,F). Emphasis to be placed on the fact that fires should only be built in supervised/education setting. Allow students to show how they can (with help) make fires in 3 different ways.

**Activity 2:** Demonstrate how to select and handle wood for splitting. Demonstrate the correct use of tool to do so. Ensure students can demonstrate the use of the "STOP" command.

#### PLENARY

Review learning from lesson, placing emphasis on safety.

**Extension Tasks:** Students to write own risk assessment for fire laying activity.

**Risk Assessment:** Teacher in charge to ensure all correct and appropriate risk assessments are carried out to ensure the health and safety of all of the students.

#### Disclaimer

The template used to produce this document, is purely for guidance only and can be adapted to suit individual requirements/standards/establishments .

|                     |   |
|---------------------|---|
| <b>VISUAL</b>       | Observe safe practices/suitable area to start a fire. |
| <b>AUDITORY</b>     | Direct teaching/explanation.                          |
| <b>KINAESTHETIC</b> | Fire laying activity/ wood splitting.                 |
| <b>SKILLS</b>       | Develop practical skills and safe working practice.   |
| <b>SEN</b>          | At appropriate level.                                 |
| <b>REWARDS</b>      | Links to school award system.                         |



Name:.....

## Outdoor Living Skills (Fire Making).

### 6 Different Methods to Make a Flame:

| Method      | Tool  | Process                                 |
|-------------|---|---|
| Spark       | Firesteel - flint and steel                           | Spark created                           |
| Friction    | Bowdrill  | Heat transfer                           |
| Electrical  | Wire wool and PP3 battery                             | Electrical arc onto wire wool or tinder |
| Chemical    | Matches   | Exothermic reaction                     |
| Solar       | Solar fire starter, bottom of can or magnifying glass | Focussed light and heat                 |
| Compression | Fire piston and char cloth                            |   |

## Fire Lays

(Fires with an asterisk \* should be learnt first!)

### **\*Small Stick Fire**

A very hot fire, excellent for quick heat but burns quickly  
(Also called a Pyramid or Tipi fire.).



### **\*Criss-cross Fire**

This fire makes a lot of hot embers which are spread out evenly (Great for cooking.).



### **\*Star Fire (Indian Fire)**

The 'Star Fire' is easy to keep going, burns for a long time but produces less heat.



### **V Fire**

This fire is excellent in windy conditions as the fire is contained. It is a very hot fire that burns quickly.



## **Long Log Fire**

This is a great fire to use when cooking for lots of people or to keep warm all night, as it is long lasting.



A 'Long Log Fire' involves burning two long logs beside each other, using short green wood stakes to keep the logs from rolling (if they are not secure). This is particularly well suited for multiple pot cooking, open fronted shelters and bivouacs. Light a fire, and when you have it going introduce the logs. Gradually spread the embers down the length of the two logs, so that more will be burned and more energy will be given off. Add some light fuel to get the blaze going and add a third log on top.

## **Back Wall Fire**

The 'Back Wall Fire' is a self feeding fire which is excellent to use when cooking for lots of people or when you need to keep warm all night long, as it is very long lasting.

A 'Back Wall Fire' involves burning two long logs beside each other, using short green wood stakes to keep the logs from rolling (if they are not secure). Then using long green wood stakes, placed at an angle, to stack more logs upon. This means that the fire will slowly burn through all of the logs. This is also particularly well suited for multiple pot cooking, open fronted shelters and bivouacs.

## **Snake Hole Fire**

This fire is great for embankments or during high winds.

In windy conditions the snake hole fire will come in handy if other efforts have failed. Hollow a small chamber into the side of a firm bank of earth about half a meter deep and 40cm in diameter. Make a chimney by driving a pointed stick down through the earth from above. Be careful not to collapse the roof of the chamber. Remove the dirt that collects below and build a fire below the chimney. This construction will produce a strong draught effect and the fire will burn very hot if it is fed enough. It is also a good way of creating a smoky environment in which food can be preserved.

### **Trench Fire**

This fire is ideal for use in high winds. Dig a trench approximately 30cm deep, 1 meter long and 30cm wide. Line the bottom of the trench with dry stones and build a fire on top of the stones. Make sure that the stones are not wet or soft as, if heated, they could explode. Once the fire is set a good heat will rise from the trench. This is a great fire for grilling. You can also build a spit over the trench (once the fire has died down) for roasting, as the heated stones and embers will provide an intense heat.

### **Dakota Hole Fire**

This is a fantastic fire to use if you wish to have a fire on the moors or during high winds.

