SCOUTS BUSHCRAFT

FIRE SKILLS & FIRE LIGHTING

60-Minute Lesson Plan

SESSION AIM
Introduce Scouts to the principles of fire lighting, safe preparation, tinder and fuel selection, different fire lays, and a range of traditional and modern fire-lighting methods.

SESSION AT A GLANCE

Duration	60 minutes	**Audience**	Scouts / young people, adapted to age and experience
Format	Discussion, demonstration and supervised activity	**Assessment**	Observation, questions and knowledge check

LEARNING OBJECTIVES

- Explain the three elements of the fire triangle: heat, fuel and oxygen.
- Identify suitable tinder, kindling and larger fuel.
- Describe how to prepare a safe fire site and what equipment should be ready.
- Recognise common fire lays: teepee, log cabin, star and lean-to.
- Describe a selection of fire-lighting methods and why practice is important.
- Explain how to extinguish a fire completely and leave the site safe.

Important: This is a teaching plan, not permission to light a fire. Follow current Scouts rules and local site requirements, use an appropriate risk assessment, and ensure competent adult supervision throughout.

1. SESSION TIMETABLE

TIME	SESSION	CONTENT & LEARNING
0–5 min	**Introduction & safety**	Ask what Scouts already know about fire. Introduce the session and establish the safety boundaries before any equipment is handled.
5–12 min	**The fire triangle**	Explain heat, fuel and oxygen. Discuss how removing one element can stop combustion. Introduce tinder, kindling and fuel.
12–20 min	**Preparing the fire site**	Choose a suitable permitted location, check conditions, clear combustible material as appropriate, prepare a safe base and position water / fire bucket.
20–28 min	**Fire lays & tinder**	Show teepee, log cabin, star and lean-to fire lays. Compare tinder samples and discuss which materials catch easily and why.
28–43 min	**Fire-lighting methods**	Demonstrate selected methods: matches, ferrocerium rod, traditional flint and steel, focusing lens, bow drill, pump drill, hand drill and fire roll. Explain that friction methods require practice.
43–53 min	**Practical challenge**	In small groups, identify suitable tinder, choose a fire lay, explain how they would prepare a safe site and select an appropriate lighting method. Any live-fire activity must be separately authorised and directly supervised.
53–60 min	**Extinguish & review**	If a fire has been lit, extinguish it fully and check for remaining heat. Finish with the booklet's review and knowledge-check questions.

2. TEACHING NOTES

Introduction and safety (0–5 minutes)

• Ask: "What do we need to think about before lighting a fire?" Invite Scouts to identify hazards such as burns, sparks, smoke, dry vegetation and changing weather.

• Explain that no one lights or approaches a fire unless instructed by the leader. Establish a clear boundary and a stop signal.

The fire triangle (5–12 minutes)

• Heat starts and sustains the process; fuel is the material that burns; oxygen supports combustion.

• Show how safe extinguishing works by removing heat, oxygen or available fuel.

Preparing the fire site (12–20 minutes)

• Check that fires are permitted at the location and that weather, ground conditions and nearby materials make the activity suitable.

• Use an approved fire area or suitable fire base. Keep the area clear and have water and appropriate extinguishing equipment immediately available.

• Keep spare fuel, bags and other equipment well away from the fire area.

Fire lays and tinder (20–28 minutes)

• Teepee: materials are arranged around a central tinder bundle to encourage an upward flame.

• Log cabin: a criss-cross structure that can provide a stable arrangement and space for airflow.

• Star: fuel sticks are arranged with their ends towards the centre; fuel can be fed in gradually where appropriate.

• Lean-to: tinder and small kindling are sheltered against a support stick, with larger kindling arranged over or beside them.

• Show examples such as dry grass, birch bark, feather sticks and char cloth. Discuss the importance of dry, suitable materials and responsible collection.

Demonstrations (28–43 minutes)

• Choose demonstrations that suit the group, site, available time and leader competence; it is not necessary to demonstrate every method in one session.

• Explain the difference between modern ignition tools and friction-based traditional methods. Emphasise preparation, patience and controlled technique.

• Keep demonstrations behind a clearly defined safe boundary. Only the instructor handles ignition equipment unless the risk assessment and supervision arrangements specifically allow otherwise.

3. PRACTICAL ACTIVITY & RESOURCES

Practical challenge (43–53 minutes)

Ask each group to complete the following without rushing into ignition:

• Identify three suitable tinder materials from the samples provided.

• Sort examples into tinder, kindling and larger fuel.

• Select one fire lay and explain why it suits the intended use.

• Describe how they would prepare and check a safe fire site.

• Choose a suitable lighting method and name one safety precaution for it.

If a live-fire practical is included, it must be covered by a suitable activity-specific risk assessment, permitted by the site, and supervised by a competent leader. Do not make live ignition a requirement of this classroom / demonstration plan.

Equipment and resources

Teaching resources	Practical / safety equipment
Fire Skills & Fire Lighting booklet	Water bucket and suitable extinguishing equipment
Fire triangle visual / whiteboard	First aid kit and fire blanket where appropriate
Tinder samples: dry grass, birch bark, feather sticks, char cloth	Approved fire base or designated fire area, if used
Examples of teepee, log cabin, star and lean-to lays	Matches, ferro rod, flint and steel, focusing lens
Pictures or examples of bow drill, pump drill, hand drill and fire roll	Bow drill / pump drill / hand drill / fire roll demonstration equipment

4. RISK ASSESSMENT – KEY HAZARDS & CONTROLS

This is a planning aid, not a substitute for a site-specific written risk assessment. Record who is responsible, the people exposed, the site conditions and any additional controls required.

HAZARD	POTENTIAL HARM	CONTROL MEASURES
Flames, hot surfaces and embers	Burns; clothing or equipment catching fire.	Maintain a clear exclusion zone. Leader controls access. Use suitable fire tools and protective arrangements. Keep water / extinguishing equipment ready. Never leave a fire unattended.
Sparks and flying embers	Eye injury, burns or ignition of nearby material.	Check wind direction and conditions. Keep spectators at a safe distance. Do not use ignition methods in unsuitable wind. Ensure the surrounding area is clear.
Smoke	Coughing, breathing irritation or aggravation of respiratory problems.	Position activity with regard to wind. Keep people out of smoke. Stop if smoke affects participants or visibility. Consider individual needs before the session.
Fire spreading	Burns, damage to property or vegetation, wider incident.	Use only an approved site. Check restrictions and weather. Keep fire small and controlled. Have an immediate extinguishing plan and suitable equipment. Extinguish fully before leaving.
Sharp tools / equipment	Cuts or puncture injuries.	Inspect equipment. Demonstrate safe handling. Keep tools controlled and stored safely when not in use. Use only with appropriate supervision and competence.
Hot equipment after use	Contact burns.	Treat equipment as hot until confirmed cool. Set a designated cooling area and prevent handling by participants.

HAZARD	POTENTIAL HARM	CONTROL MEASURES
Weather and ground conditions	Fire spread, slips, trips or loss of control.	Check forecast and site conditions. Cancel or adapt if wind, drought, heat, wet ground or other conditions make the activity unsuitable. Keep access routes clear.

5. ASSESSMENT & INSTRUCTOR CHECKLIST

Assessment – can the Scout…

■ Name the three parts of the fire triangle.

■ Give three examples of suitable tinder.

■ Explain the difference between tinder, kindling and fuel.

■ Name two fire lays and describe when they might be useful.

■ Describe two fire-lighting methods.

■ Identify key fire safety precautions.

■ Explain how a fire should be extinguished and checked before leaving.

Instructor preparation checklist

■ Read the Fire Skills & Fire Lighting booklet and select the pages relevant to the session.

■ Check current Scouts guidance, local rules, landowner permission and any fire restrictions.

■ Complete and communicate a site-specific risk assessment.

■ Check leader competence, supervision ratios and any required authorisation.

■ Inspect all equipment and prepare dry tinder / demonstration samples.

■ Choose and inspect the activity area; identify boundaries, access and emergency arrangements.

■ Position water and suitable extinguishing equipment before the activity begins.

■ Check weather and ground conditions immediately before the session.

■ Print the review and knowledge-check page for the end of the session.

6. CLOSE & REVIEW (53–60 MINUTES)

If a fire has been used, extinguish it in accordance with the site procedure. Check the fire area carefully for residual heat, embers and smouldering material. Do not leave until the responsible leader is satisfied it is completely out and safe.

Use the booklet's final knowledge check. Ask Scouts what they found most interesting, which method they would like to learn more about, and what they would do differently next time.

KEY MESSAGE

Fire lighting is about understanding the natural elements, preparing properly, choosing suitable materials, practising patiently and taking responsibility for everyone's safety.

Leader notes / adaptations