



**SURVIVAL SCHOOL COURSE**

**NCFE CQ**

**LEVEL 3**

**FIRE AND TINDER**

**LEARNING OUTCOMES**

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**Unit 01 HISTORY, TERMINOLOGY AND TECHNOLOGY OF FIRE AND TINDER**

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**Learning Outcomes:****The learner will:**

Understand the history of fire and tinder, the terminology and the technology of burning.

**The learner will:**

1.1

- a. Evaluate and discuss fire has been used in history.
- b. Establish terminology linked with fire and tinder.
- c. Discuss the safe and ethical use of fire and collection of tinder linked with potential Health and Safety issues.
- d. Discuss PPE and safety equipment suitable for use with fires.
- e. Discuss the technology of fire with links to pyrotechnology and physics.

**The learner can:**

1.2

- a. Explain how and why fire and tinders were used in prehistory.
- b. Explain the terminology of fire and tinders.
- c. Explain safe lighting and maintenance of fires.
- d. Demonstrate a good working knowledge suitable fire lighting safety equipment.
- e. Explain how fire works.

**Range (explanation)**

This unit contains information about the uses and descriptions of a range of fires and equipment. It is a vehicle for safe and best practise linked with fires and should also cover the extinguishing and disposal of fire debris.

Internal Assessment Guidance – Unit 01:

**Learning Outcome:**

<b>Number</b>	<b>Type of evidence</b>	<b>Additional information (if applicable)</b>
<b>1.2.a</b>	<b>Q/A and D</b>	
<b>1.2.b</b>	<b>Q/A and D</b>	
<b>1.2.c</b>	<b>Q/A and D</b>	
<b>1.2.d</b>	<b>Q/A and D</b>	
<b>1.2.e</b>	<b>Q/A and D</b>	

Q/A Question and Answer, PD Practical Demonstration, D Discussion

**Learning Outcomes:****The learner will:**

Be able to explain why tinder and fuel sources are important and understand the reasons for selecting those tinders and fuels for specific fires.

**The learner will:**

## 2.1

- a. Identify a range of tinders suitable for fire lighting in different environments.
- b. Analyse the properties required for a range of fuels.
- c. Discuss the most suitable fire lays for a range of purposes.
- d. Assess the affordance of the fuel in the short and long terms with a view to multiple visits.

**The learner can:**

## 2.2

- a. Identify a range of tinders suitable for fire lighting in different environments.
- b. Analyse the properties required for a range of fuels.
- c. Discuss the most suitable fire lays for a range of purposes.
- d. Assess the affordance of the fuel in the short and long terms with a view to multiple visits.

**Range (explanation)**

This unit is designed to explain the different fires required for a range of purposes. The collection of tinders and fuel should be adjusted to suit the woodland available so conservation is maintained. Possible sources from external woodlands may be required. Tinders collected or provided should show a range of manmade and natural materials. The use of feather sticks should be practised.

**Internal Assessment Guidance – Unit 02:**

**Learning Outcome:**

<b>Number</b>	<b>Type of evidence</b>	<b>Additional information (if applicable)</b>
<b>2.2.a</b>	<b>Q/A, PD and D</b>	
<b>2.2.b</b>	<b>Q/A, PD and D</b>	
<b>2.2.c</b>	<b>Q/A, PD and D</b>	
<b>2.2.d</b>	<b>Q/A, PD and D</b>	

Q/A Question and Answer, PD Practical Demonstration, D Discussion

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**Unit 03 DEMONSTRATION AND PRODUCTION OF FIRE USING HISTORICAL METHODS**

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**Learning Outcomes:****The learner will:**

Be able to examine a range of fire lighting techniques with suitable tinders from historical sources (pre-18th Century).

**The learner will:**

## 3.1

- a. Examine the technical and mechanical processes of producing sparks from flint and iron pyrite.
- b. Examine the technical and mechanical process of producing an ember using the fire piston.
- c. Examine the technical and mechanical processes of producing embers from a fire bow set or hand drill set.
- d. Examine the technical and mechanical processes of producing embers from a fire plough or hand pump set.
- e. Discuss affordance of the production of the materials required.

**The learner can:**

## 3.2

- a. Produce a fire from a flint and steel set and a flint and pyrite set.
- b. Produce a fire using a fire piston.
- c. Produce a fire from a range of friction fire lighting methods.
- d. Explain the worth of each method to the user.

**Range (explanation)**

This unit encourages the learner produce fires using ancient methods whilst sourcing the materials. The material culture of the fire lighting should also be included as there is symbology and ritual to fire lighting. Safety equipment should be used (especially for the lithic based methods) and means to extinguish the fire should also be available.

Internal Assessment Guidance – Unit 03:

**Learning Outcome:**

<b>Number</b>	<b>Type of evidence</b>	<b>Additional information (if applicable)</b>
<b>3.2.a</b>	<b>Q/A, PD and D</b>	
<b>3.2.b</b>	<b>Q/A, D and P/D</b>	
<b>3.2.c</b>	<b>Q/A, PD and D</b>	
<b>3.2.d</b>	<b>Q/A and D</b>	

Q/A Question and Answer, PD Practical Demonstration

**Learning Outcomes:****The learner will:**

Be able to develop the skills to light a fire using contemporary methods.

**The learner will:**

## 4.1

- a. Explore the methods of lighting a fire using ferrocerium rods.
- b. Explore the methods of using chemicals to light a fire.
- c. Explore the methods of using electricity to light a fire.
- d. Explore the methods of using solar energy to light a fire.

**The learner can:**

## 4.2

- a. Demonstrate how to use ferrocerium rods to light fires.
- b. Demonstrate how to use chemicals to light a fire.
- c. Demonstrate how to use electricity to light a fire.
- d. Demonstrate how to use the sun's energy to light a fire.

**Range (explanation)**

This unit will guide the learner through how to produce fire using contemporary methods and explain the safety aspects of dealing with electricity and chemicals. Learners should be thoroughly briefed on PPE and precautions should be taken against unnecessary environmental damage. If there is no sunshine then demonstrating the principle using a torch will be considered adequate demonstration.

**Internal Assessment Guidance – Unit 04:****Learning Outcome:**

Number	Type of evidence	Additional information (if applicable)
4.2.a	Q/A, D and PD	
4.2.b	Q/A, D and PD	
4.2.c	Q/A, D and PD	
4.2d	Q/A, D and PD	



## Q/A Question and Answer, PD Practical Demonstration

**Learning Outcomes:****The learner will:**

Be able to explain the process of fire disposal, dispersal and post-fire conservation.

**The learner will:**

## 5.1

- a. Discuss the use of fire products when the heat and flames have been extinguished.
- b. Demonstrate how to dispose and disperse fire debris.
- c. Discuss how to leave no trace before leaving a fire site.

**The learner can:**

## 5.2

- a. Explain how to use ash, charcoal and fire dogs for later fires (charcoal mobility).
- b. Clear a fire site to leave it safe for other users.
- c. Explain how to leave no trace of the fire they have lit.
- d. Reflect on fire lighting from arrival through to departure from the fire site.

**Range (explanation)**

This unit will enable the learner to reflect on their achievements with a self-critical analysis of their work. The emphasis will be placed on safety and environmentally sound principles of pyrotechnology.

**Internal Assessment Guidance – Unit 5:****Learning Outcome:**

Number	Type of evidence	Additional information (if applicable)
5.2.a	Q/A, D and PD	
5.2.b	Q/A, D and PD	
5.2.c	Q/A, D and PD	
5.2.d	Q/A, D and PD	

Q/A Question and Answer, PD Practical Demonstration