



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **DEFSU008B Produce fire using improvised means in a survival situation**

**Release: 1**

## **DEFSU008B Produce fire using improvised means in a survival situation**

### **Modification History**

Not applicable.

### **Unit Descriptor**

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This unit covers the competency required to initiate and maintain fire in a survival situation.

Fire is one of the most critical survival resources because of the range of applications, from preventing hypothermia, and sterilising water to initiating rescue signals.

The individual is expected to produce fire from improvised means (which may include traditional means if there are no alternatives).

### **Application of the Unit**

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The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

### **Licensing/Regulatory Information**

Not applicable.

## Pre-Requisites

Prerequisite Unit/s Nil

## Employability Skills Information

Employability Skills This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

#### 1. Prepare for fire starting

- 1.1 *Tinder* is collected, dried and *protected*
- 1.2 *Kindling* is collected, prepared and stored in a dry location
- 1.3 *Fuel* is collected, prepared and stored in a dry location

#### 2. Start and maintain fire

- 2.1 A fire safe area is sited and *prepared*
- 2.2 Fire is started from *improvised means*
- 2.3 Fire is *prevented* from extinguishing

## **Required Skills and Knowledge**

### **REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level, required for this unit.

#### **Required Skills**

- implement fire safety

#### **Required Knowledge**

- chemical and electrical hazard awareness
- fire safety
- hypothermia
- range of applications of fire in a survival situation
- rescue signals

## Evidence Guide

### EVIDENCE GUIDE

#### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

Assessment must confirm the ability to produce fire from traditional means and friction; to nurture the ember (from the traditional means only) into a robust flame (i.e. a small bonfire) through the careful and sequential additions of tinder, kindling and fuel; and to maintain a fire continuously regardless of weather conditions (which must include rain) demonstrating due regard to the safety of persons and equipment, and the surrounding environment.

#### **Consistency in performance**

Competency must be demonstrated once under the range of methods detailed in the establishment of fire but the maintenance of fire should be assessed over time.

#### **Context of and specific resources for assessment**

##### **Context of assessment**

Competency must be assessed in a simulated workplace environment.

While a person can demonstrate the technical ability to start and maintain a fire, doing so in a survival situation is crucial; consequently it is strongly recommended that holistic assessment be conducted with other associated survival units.

Assessment under simulated survival conditions should include:

- food restrictions (food should be restricted to half the recommended daily caloric intake)
- the absence of normal living conditions and amenities such as showers, beds and bedding (warmth to be provided by fire), kitchens etc. with the attendant levels of personal discomfort and fatigue
- a significant period of time - the recommendation is four days.

##### **Specific resources for assessment**

Access to assessment area with access to a sufficient quantity of suitable dry organic material to start fires; friction method fire starting resources including bootlace (as bow-string); and a knife.

## Range Statement

### RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

<b>Tinder may include</b>	Dried filaments of grass and fibre Extremely fine/ground shavings Fluff/down from clothing Punk from traditional drillings
<b>Protecting tinder may include</b>	Using purpose waterproof container or improvised equivalent Preventing unnecessary absorption of atmospheric water
<b>Kindling may include</b>	Leaves Grass Shavings Small twigs
<b>Fuel includes</b>	Branches Logs
<b>Preparing a fire safe area includes</b>	Minimising threat to the survivor Minimising threat to the survivor's effects and equipment Preventing escape of the fire into surrounding vegetation
<b>Improvised means may include</b>	Chemical: <ul style="list-style-type: none"> <li>• brake fluid and potassium permanganate</li> <li>• glycerine and potassium permanganate</li> <li>• potassium permanganate and sugar</li> </ul> Electrical: <ul style="list-style-type: none"> <li>• dry cell and steel wool</li> <li>• car battery and jumper leads</li> </ul> Friction: <ul style="list-style-type: none"> <li>• flint/striker systems</li> </ul> Solar:

**RANGE STATEMENT****Preventing a fire from extinguishing includes**

- focal point of headlight dish
- magnifying glass/lens

## Traditional:

- bow
- bowstring (bootlace)
- hand drill
- plough

All weather conditions

**Unit Sector(s)**

Not applicable.

**Corequisite Unit/s**

Co-requisite Unit/s Nil