15 RECOGNISING TREE SPECIES AND HAZARDOUS TREES

City & Guilds NPTC

In Association With

Husqvarna

Use of this worksheet

This worksheet is part of a series of interactive worksheets that has been produced in association with Husqvarna to support the delivery of training for the City & Guilds (NPTC) suite of chainsaw qualifications.

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Content

This worksheet covers the following outcomes:

Be able to work safely
Know relevant health and safety legislation and industry good practice

Chainsaw Safe Practice (*General Guidance*)

At all times during training and assessment, equipment must be used in accordance with industry good practice, whatever the task being carried out.

1. Trainers and Assessors must hold a current 'First Aid at Work' Certificate. It is recommended that all Trainees/Candidates hold as a minimum a current Emergency First Aid Certificate
2. All chainsaws used in assessments must comply with relevant Arboriculture and Forestry Advisory Group (AFAG) guidance and HSE Chainsaws at Work INDG317(rev1), in terms of safety features, and be a model and size suited to the task(s) required.
4. Recommended guide bar lengths should be observed, although variations may be accepted at the discretion of the Trainer or Assessor where this is appropriate to the task.
5. Trainees/Candidates should be familiar with the machinery, equipment and tools that they are going to use.
6. During chainsaw based training and assessment a spare working chainsaw must be available.

7. Appropriate Personal Protective Equipment (PPE) must be worn at all times by the Candidate, Trainer and the Assessor. All PPE used must comply with relevant AFAG guidance, industry good practice, Health and Safety Executive publications and current legal requirements in terms of specification and use.
8. A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available, along with appropriate fire fighting and suitable welfare facilities e.g. hand cleansing wipes.
9. The carrying and use of personal first aid kits must comply with current industry good practice.
10. The Trainer or Assessor must ensure a site specific risk assessment has been carried out, sufficient control measures implemented and appropriate emergency procedures recorded. All recorded risk assessment information should be clearly legible and accessible to candidates and completed for all locations where assessment activities are scheduled to take place.
11. Manual handling techniques must comply with current legislation and industry good practice.
12. Any necessary permission must have been granted, and notifications made as appropriate.
13. All equipment being used for this assessment must comply with legislative requirements and in particular relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.
14. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
15. The current regulations for transport, handling and storage of fuel and oils must be complied with.
16. Provision must be made to avoid the risk of environmental pollution.
17. It is the responsibility of the Trainer, Assessor and the Candidate to ensure that any additional requirements and provisions are met as relevant to this qualification.
18. At all times during training and assessment, Candidates must act in a way so as not to endanger themselves, the Trainer / Assessor or any other person or equipment. Work must be carried out to achieve the requirements of the assessment criteria in accordance with all relevant and current legislation and good practice guidance.
19. If required, relevant and accurate records must be kept.
20. Appropriate steps should be taken to maintain effective teamwork in respect of other persons on site during the assessment.
21. Any appropriate item of machinery complying with current legal requirements is acceptable for training and assessment, provided it is suitably equipped for **all** training and assessment activities to be carried out.
22. **A breach of Health and Safety that puts any person at serious risk during the training or assessment process may result in the training or assessment being immediately terminated.**

The statistics

In forestry and arboriculture (between 2004/05 to 2010/11) chainsaws caused **5 deaths.** In forestry in the five years up to March 2012 there was an average of 10.4 fatalities per 100,000 workers. This is more than three times the fatality rate for the construction industry. **Source FISA 2012**

Recognising tree species

The reasons why you will need to recognise different tree species vary, depending on the type of work that is being carried out. They may include:

- **in order that the characteristics of the tree may be taken into account during hazard and risk assessment (for example brittle timber)**
- **to identify a particular tree for surveying purposes**
- **to correctly identify a particular tree for felling or remedial works.**

It is possible to identify trees by looking at the:

- **overall form**
- **bark**
- **twigs (buds)**
- **leaves**
- **flowers**
- **fruit/seed**

Note: For correct botanical identification the flowers (specifically the petals, sepals and stamens) would be used by botanists.

The following pages of this workbook contain images of common native trees, some ornamental trees and trees commercially grown for timber.

Genus	species	Cultivar (if appropriate)
Acer	*campestre*	
Acer	*platanoides*	
Acer	*pseudoplatanus*	
Aesculus	*hippocastanum*	
Alnus	*glutinosa*	
Araucaria	*araucana*	
Betula	*pendula*	
Castanea	*sativa*	
Carpinus	*betulus*	
Cedrus	*atlantica*	*'Glauca'*
Chamaecyparis	*lawsoniana*	
Corylus	*avellana*	
Crataegus	*monogyna*	
Eucalyptus	*gunnii*	
Fagus	*sylvatica*	
Fraxinus	*excelsior*	
Ginkgo	*biloba*	
Gleditsia	*triacanthos*	
Ilex	*aquifolium*	
Larix	*decidua*	
Malus	*sylvestris*	
Picea	*abies*	
Pinus	*nigra*	
Pinus	*sylvestris*	
Pinus	*radiata*	
Populus	*tremula*	
Platanus	*x hispanica*	
Prunus	*avium*	
Pseudotsuga	*menziesii*	
Quercus	*x ilex*	
Quercus	*robur*	
Robinia	*pseudoacacia*	
Salix	*alba*	
Salix	*x sepulcralis var chrysocoma*	
Sorbus	*aucuparia*	
Taxus	*baccata*	
Tilia	*cordata*	
Tilia	*x euchlora*	
Thuja	*plicata*	
x Cuprocyparis	*leylandii*	

Look at each of the following pages, where you will find pictures of trees showing :

- **the overall form**
- **bark**
- **twigs (buds)**
- **leaves**
- **flowers**
- **and fruit/seed.**

For each example, which has been identified by its full botanical name, you are required to:

- **enter the common name in the space provided**
- **describe any characteristics of the tree that may impact on felling or remedial operations.**

Acer campestre

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Acer platanoides

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Acer pseudoplatanus

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Aesculus hippocastanum

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Alnus glutinosa

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Araucaria araucana

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Betula pendula

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Castanea sativa

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Carpinus betulus

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Cedrus atlantica 'Glauca'

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Chamaecyparis lawsoniana

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Corylus avellana

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Crataegus monogyna

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Eucalyptus gunnii

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Fagus sylvatica

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Fraxinus excelsior

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Ginkgo biloba

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Gleditsia triacanthos

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Ilex aquifolium

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Larix decidua

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Malus sylvestris

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Picea abies

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Pinus nigra

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Pinus sylvestris

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Pinus radiata

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Platanus x hispanica

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Populus tremula

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Prunus avium

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Pseudotsuga menziesii

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Quercus x ilex

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that a may impact on felling or remedial operations	

Quercus robur

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Robinia pseudoacacia

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Salix alba

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Salix sepulcralis var. chrysocoma

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	**No picture available**

Characteristics that may impact on felling or remedial operations	

Sorbus aucuparia

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Taxus baccata

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Tilia cordata

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Tilia x euchlora

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Thuja plicata

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

x Cuprocyparis leylandii

Common Name	

Form		**Foliage**	
Bark		**Flower**	
Twigs		**Fruit / seed**	

Characteristics that may impact on felling or remedial operations	

Recognising hazardous trees

Trees can be hazardous for all sorts of different reasons; they can be just as dangerous for those working on the ground as for aerial workers. It is important that everyone who works with trees knows what to look for and the characteristics that can make a tree potentially dangerous.

The following pages contain examples of the signs to look for which may indicate that there are potential hazards.

Examine each of the pictures and state why the sign may indicate a potential hazard.

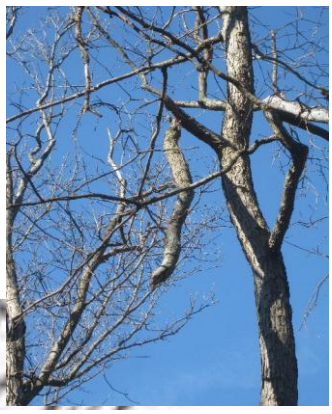
1

2

3

4

5



6

7

8

9

10

Recognising hazards in trees

11

12

13

14

No.	Picture	Description	Potential hazard(s)
1		Pollarding indicated by a change in stem diameter; decay may be present hidden by new growth.	
2		Leaves (or needles on conifers) dead or dying can indicate root decay or death.	
3		Power or telecommunication lines.	
4		A weak fork (poor crotch angle) may be structurally weak. Decay can develop in cracks in bark.	

No.	Picture	Description	Potential hazard(s)
5		A hanging or nested branch – a ‘widow maker’.	
6		Canker, perennial or target cankers can result in weakness of the branch and death.	
7		Break out cavity caused by a branch breaking off. Decay can often develop in the wounds.	
8		Abrupt bends where branches have broken or they have been pruned. Decay may be present.	

No.	Picture	Description	Potential hazard(s)
9		Hornets, bees and wasps.	
10		Loose bark coming away from the stem may indicate decay/rotten wood underneath.	
11		Fungi and fruiting bodies are indicators of decay on the stem and roots of the tree.	
12		A crack in the soil after rain indicates an unstable tree moving in the wind.	

No.	Picture	Description	Potential hazard(s)
13		Basal cavities are serious especially if between one or more buttresses.	
14		Damaged roots may lead to dieback and serious problems with stability.	

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