

# Wood Technology

## Hand Tools and Power Tools

It is not necessary to carry out all the activities contained in this unit. Please see *Teachers' Notes* for explanations, additional activities, and tips and suggestions.

Theme	Hand Tools and Power Tools	
<b>All students:</b>  Activities that are suitable for <b>Learning Support, Language Support</b> and the <b>Mainstream Subject Class</b> include:	Keywords	3
	Vocabulary File	4-5
	Activating Students' Existing Knowledge	6
	Completing Sentences	12
	Multiple Choice	13
	Wordsearch	16
<b>Learning support and Language support:</b>  Activities suitable for students receiving Learning or Language Support include:	Working with words	7
	Picture Sentences	8
	Odd One Out	9
	Wood Technology Keywords	10
	Unscramble the letters	11
	Alphaboxes	15
	Play Snap	17-20
<b>Language support:</b>  Additional activities for Language Support:	Grammar points	14
<b>Levels for Language Support</b>	<b>A1 – B1</b> The language level of each activity is indicated in an information box.	
<b>Learning focus</b>	Using Wood Technology textbooks and accessing curriculum content and learning activities.	
<b>Acknowledgement</b>	The <i>English Language Support Programme</i> acknowledges the permission of Gill and Macmillan to reproduce excerpts from <i>Wood Technology for the Junior Certificate</i> . Edited by Bill Gaughran. .	

**Note:** The categorisation of activities is indicative only and should not prevent teachers from using any activities that are considered suitable for a particular group of students.

## Making the best use of these units

### Learning Record

A copy of the Learning Record should be distributed to each learning support and language support student.

Students should:

1. Write the subject and topic on the record.
2. Tick off/date the different statements as they complete activities.
3. Keep the record in their files along with the work produced for this unit.
4. Use this material to support mainstream subject learning.

**Introduction** of a topic or activity should ensure that students understand **what** they are doing and **why**. Many students will have some difficulty in understanding both the language in the activity and the instructions/purpose for carrying out the activity.

You can create your **personal teaching resource** by printing these units in full and filing them by subject in a large ring binder.

### Encourage students to:

- Bring the relevant **subject textbooks** to learning/language support class. It does not matter if they have different textbooks as the activities in these units refer to vocabulary and other items that will be found in all subject textbooks. These units are based on curriculum materials.
- Take some **responsibility for their own learning** programmes by:



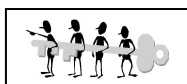
Developing a **personal dictionary** for different subjects, topics, and other categories of language, on an on-going basis. This prompt is a reminder.



Recording what they have learnt on the **Learning Record**, which should be distributed at the start of each unit.



Keeping their own **files** with good examples of the work produced for different subjects and topics. This file will be an invaluable **learning resource** in supporting mainstream learning.



Indicates that answers may be found at the end of the unit.

Don't forget that many of the activities in these units are also suitable as **homework** tasks or for **self-study**.

## **Keywords**

The list of keywords for this unit is as follows:

### **Nouns**

angle  
appliance  
beech  
belt  
bench  
bevil  
bit  
blade  
booth  
chisel  
claw  
compressor  
cross  
curves  
cutter  
drill  
edge  
file  
gauge  
goggles  
grain  
gun  
hammer  
handle  
head  
health  
hole  
hook  
joints  
knife  
machine  
machinery  
mallet  
minas  
mortise  
nail  
nut  
oilstone  
pincers

plane  
plug  
power  
router  
safety  
sander  
saw  
screwdriver  
sketch  
socket  
square  
steel  
stock  
surface  
teeth  
thumb  
timber  
tip  
tools  
vice  
workshop

### **Verbs**

bore  
cut  
drill  
fit  
grind  
list  
mortise  
mount  
pare  
plane  
power  
remove  
rotate  
saw  
sharpen  
spray  
secure

### Vocabulary file 1

Word	Meaning	Note or example*
tool		
drill		
sander		
plug		
appliance		
socket		

\* You may wish to write a sentence or phrase, make a note of the page in your textbook where this word appears or, if English is not your first language, provide a translation into your language.



Get your teacher to check this and then file it in your folder.

## Vocabulary file 2

Word	Meaning	Note or example
blade		
screw		
pincer		
vice		
to spray		
to rotate		



Get your teacher to check this and then file it in your folder so you can use it in the future.

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**Language Level:** all  
**Type of activity:** whole class  
**Suggested time:** 10 minutes

## Activating students' existing knowledge

Use a spidergram to activate students' ideas and knowledge on the key points in this chapter. See **Teachers' Notes** for suggestions.

Possible key terms for the spidergram:

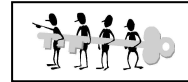
### Tools and Equipment

- Invite newcomer students to provide key words in their own languages.
- Encourage dictionary use.
- Encourage all students to organise their vocabulary into relevant categories (e.g. meaning, nouns, keywords, verbs etc.).



All students should record vocabulary and terms from the spidergram in their personal dictionaries.

Language Level: A1  
Type of activity: pairs or individual  
Suggested time: 30 minutes



### Working with words

1. Which of these is a hand tool, and which is a power tool?



Hand tool

Power tool

2. Find these words in your textbook.

Write your own explanation for these words. Then write a note or example to help you remember. Use your dictionary if necessary.

Word	Page in textbook	Explanation	Note or example
tool			
cutting			
shaping			
boring			



Check that these key words are in your personal dictionary.

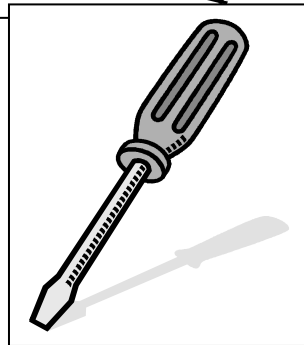
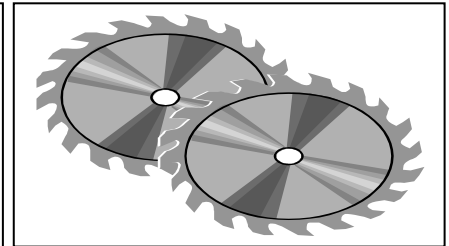
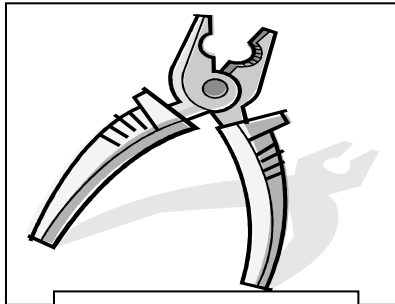
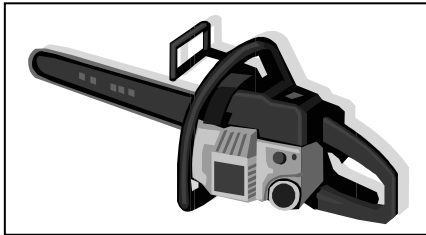
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
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Language Level: A1  
Type of activity: pairs or individual  
Suggested time: 30 minutes



## Pictures

1. Match the tools with the names.



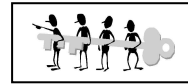
drill                      chainsaw    circular saws  
hammer            pincers            screwdriver

2. Go to your textbook and find pictures of the following:

Picture of	Page in textbook
Measuring tape	
Callipers	
Saw	
Sander	
Planer	



Language Level: A1/A2  
Type of activity: pairs or individual  
Suggested time: 20 minutes



### Odd One Out

Circle the word which does not fit with the other words in each line.

*Example:*    *apple*    *orange*    *banana*    taxi

- |              |               |            |          |
|--------------|---------------|------------|----------|
| 1. pincers   | nails         | timber     | go       |
| 2. saw       | chicken       | thumb      | wood     |
| 3. potatoes  | straight      | smooth     | curved   |
| 4. pencil    | marking knife | try-square | music    |
| 5. mortising | chisel        | car        | gauge    |
| 6. drill     | cat           | power      | portable |
| 7. booth     | spray         | gun        | guitar   |
| 8. phone     | sander        | rotating   | orbital  |

Language Level: A2 / B1  
Type of activity: individual  
Suggested time: 20 minutes



## Wood Technology Keywords

1. Fill in the missing letters of the keywords listed below.  
On the line beside each word, write whether the word is a noun, an adjective or a verb.

smo\_\_hing \_\_\_\_\_

ma\_\_ri\_l \_\_\_\_\_

ro\_\_er \_\_\_\_\_

oil\_\_one \_\_\_\_\_

ma\_\_in\_ry \_\_\_\_\_

spr\_\_ing \_\_\_\_\_

ap\_\_ia\_ce \_\_\_\_\_

ava\_\_a\_le \_\_\_\_\_

2. Write as many words as possible related to **Hand Tools and Power Tools**. You have 3 minutes!

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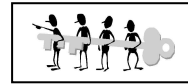
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Language Level: A1 / A2  
Type of activity: pairs or individual  
Suggested time: 20 minutes



### Unscramble the letters

1. This is used to make holes RLLID

**Answer** \_\_\_\_\_

2. Makes the surface of wood smooth SREADN

**Answer** \_\_\_\_\_

3. These are used to hold different pieces of wood together  
CWSSER

**Answer** \_\_\_\_\_

4. When you prepare a tool to be used ARHINGSPEN

**Answer** \_\_\_\_\_

### Solve the secret code

English	A	E	G	L	O	R	S	T
Code	B	X	Y	I	G	Q	W	D

example: IGWX = LOSE

DGGIW BQX YQXBD =

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Language Level: A2 / B1  
Type of activity: pairs or individual  
Suggested time: 30 minutes



## Completing sentences

Fill in the blanks in these sentences. Use words from the Word Box below.

### MARKING-OUT TOOLS

This group is sometimes referred to as geometrical tools, and includes \_\_\_\_\_ used to measure distances and angles, to test the straightness of edges, and to mark circles and \_\_\_\_\_.

### PERCUSSION OR IMPELLING TOOLS

Hammers, mallets and \_\_\_\_\_ are used to assemble joints or to drive nails or screws into the material. Some percussion tools also have a cutting or chopping action, such as the axe.

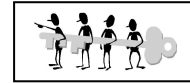
### SAWS

Saws may be used to reduce the size of large sections of \_\_\_\_\_ or to work very fine joints. There are many saw \_\_\_\_\_, and one's choice will depend on the material being cut and the profile of the cut, i.e. whether the cut is straight or curved.

### Word Box

tools      curves      types      screwdrivers      material

Language Level: A2 / B1  
Type of activity: individual  
Suggested time: 40 minutes



## Multiple choice

*Read the text below and choose the best answers.*

### THE NARROW BANDSAW

This can be used to cut curved or intricately shaped items from timber and manufactured boards as well as from light metals and plastics. It is important to ensure that the correct type and size of blade is fitted to suit the operation in hand.

A number of standard jigs are available and many more can be readily constructed to facilitate the manufacture of large numbers of curved items. The saw blade is a continuous band which passes over two large wheels, one of which is driven by a motor. Narrow blades about 3 mm wide are available and are used when cutting small radius curves in light material. Generally speaking, the size of blade used will depend on the thickness of the material and the radii of the curves being cut.

To prevent the blade from being forced off the wheels while cutting, its back edge is supported by a hardened steel disc which is mounted on ball-bearings. As the back of the moving blade contacts the disc, the disc rotates and friction is reduced.

1. What can the narrow bandsaw be used to cut?
  - a) nothing
  - b) curved items
  - c) steel
  - d) paper
2. What must be fitted to the bandsaw for each operation?
  - a) timber
  - b) plastic
  - c) the correct blade
  - d) light metals
3. What drives one of the wheels in the bandsaw?
  - a) your hands
  - b) narrow blades
  - c) batteries
  - d) a motor
4. Should the blade be forced off the wheels while cutting?
  - a) Yes
  - b) No
5. Is friction reduced by the rotating disc?
  - a) Yes
  - b) No

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
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Language Level: all  
Type of activity: individual  
Suggested time: 30 minutes

### Grammar

1. Select 5 tools from the list below. If you are not sure what they are, use the pictures in your textbook to help you.

the rule, the pencil, the try-square, the mortise gauge, the handsaw, the chisel, the hammer, the mallet, the pincers, the brace, the plane, the file, the sander, the drill, the circular saw, the planer, the router

2. Write two sentences about each of the 5 tools.

- It is used for (+ing)
- It is made from/of

Example: *The rule is used for measuring distances accurately.*  
*The rule is made from stainless steel or boxwood*



3. Yes/No Quiz

- a) One student thinks of a tool, but doesn't say which one.
- b) The rest of the class ask yes/no questions until the item is guessed.
- c) Another student takes a turn.

**Remember the student can only answer YES or NO.**

Sample questions:

Is it made of/...? Is it used for...? Is it round...?  
Is it square....? Is it dangerous...? Is it (a hammer)?

## Alphaboxes

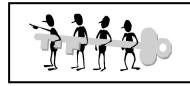
Using your textbook, find **one** word beginning with each of the letters of the alphabet. Write the word in the relevant box. You could also write the word in your own language.

a	b	c
d	e	f
g	h	i
j	k	l
m	n	o
p	q	r
s	t	u
v	w	xyz

Do you understand all these words?



Get your teacher to check this, then file it in your folder so you can use it in the future.



### Word search

Find the words from the list below.

C F  
 X H  
 S A W S  
 H E A D  
 A T E E T H  
 R I V E T S

Q Y F M A T E R I A L C F M O R T I S E  
 C H I S E L L B L A D E S P I N C E R S  
 G N O F W O O D W O R K I N G I O F  
 M F Y O I L S T O N E X W O O D  
 K H A C K S A W M A L L E T  
 B L A D E H A M M E R S  
 Y C H I S E L S G A U G E O  
 J O I S C R E W D R I V E R  
 D T F M I L L I M E T R E L Q R  
 M S C R E W S H A N D L E R  
 G T I M B E R L T E N O N W  
 B E N C H U H F E Y  
 N I P N E D G E  
 R Q Z V

BENCH	GAUGE	MATERIAL	SAWS
BLADE	HACKSAW	MILLIMETRE	SCREWDRIVER
BLADES	HAMMERS	MORTISE	SCREWS
CHISEL	HANDLE	OILSTONE	TEETH
CHISELS	HEAD	PINCERS	TENON
EDGE	MALLET	RIVETS	TIMBER
			WOOD
			WOODWORKING



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## Play Snap

Make Snap cards with 2 sets of the same keywords. See *Notes for teachers* for ideas about how to use the cards.



describe	describe
woodworking	woodworking
drill	drill

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sander	sander
machinery	machinery
portable	portable

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<b>workshop</b>	<b>workshop</b>
<b>explain</b>	<b>explain</b>
<b>available</b>	<b>available</b>

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
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**goggles**

**goggles**

**rotates**

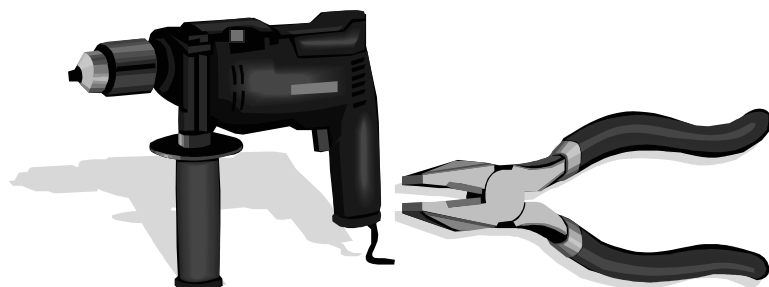
**rotates**

**timber**

**timber**

## Answer key

### Working with words, page 7



a power tool

a hand tool

### Pictures, page 8

The tools appear in this order (left to right, row 1)

chainsaw, pincers, circular saws

Row 2

hammer, screwdriver, drill

### Odd one out, page 9

1. go, 2. chicken, 3. potatoes, 4. music, 5. car, 6. cat, 7. guitar, 8. phone

### Keywords, page 10

Smoothing (verb), material (noun), router (noun), oilstone (noun), machinery (noun), spraying (verb), appliance (noun), available (adjective)

### Unscramble the letters, page 11

Drill, sander, screws, sharpening

Secret Code: tools are great

### Completing Sentences, page 12

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Hammers, mallets and **screwdrivers** are used to assemble joints or to drive nails or screws into the material. Some percussion tools also have a cutting or chopping action, such as the axe.

#### SAWS

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Saws may be used to reduce the size of large sections of **material** or to work very fine joints. There are many saw **types**, and one's choice will depend on the material being cut and the profile of the cut, i.e. whether the cut is straight or curved.

**Multiple Choice, page 13**

1. b, 2. c, 3. d, 4. b, 5. a

**Word Search, page 16**

C F  
X H  
S A W S  
H E A D  
A T E E T H  
R I V E T S  
Q Y F M A T E R I A L C F M O R T I S E  
C H I S E L L B L A D E S P I N C E R S  
G N O F W O O D W O R K I N G I O F  
M F Y O I L S T O N E X W O O D  
K H A C K S A W M A L L E T  
B L A D E H A M M E R S  
Y C H I S E L S G A U G E O  
J O I S C R E W D R I V E R  
D T F M I L L I M E T R E L Q R  
M S C R E W S H A N D L E R  
G T I M B E R L T E N O N W  
B E N C H U H F E Y  
N I P N E D G E  
R Q Z V