



An Roinn Oideachais
Department of Education

LCA Subject Development Day 2022

LCA Ag. Hort.

Session 1	Welcome and Introductions Learning outcomes An Overview of the LCA Programme and assessment
Tea/Coffee Break	
Session 2	Subject specific content Activity and discussion
Lunch	
Session 3	Subject area: Practical strategies for teaching, learning and assessment Evaluations

By the end of this seminar participants will have:

Become familiar with the curriculum and assessment procedures in Leaving Certificate Applied.

Explored the approaches to teaching, learning and assessment in LCA.

Become familiar with your subject specific module descriptor.

PDST - Introduction

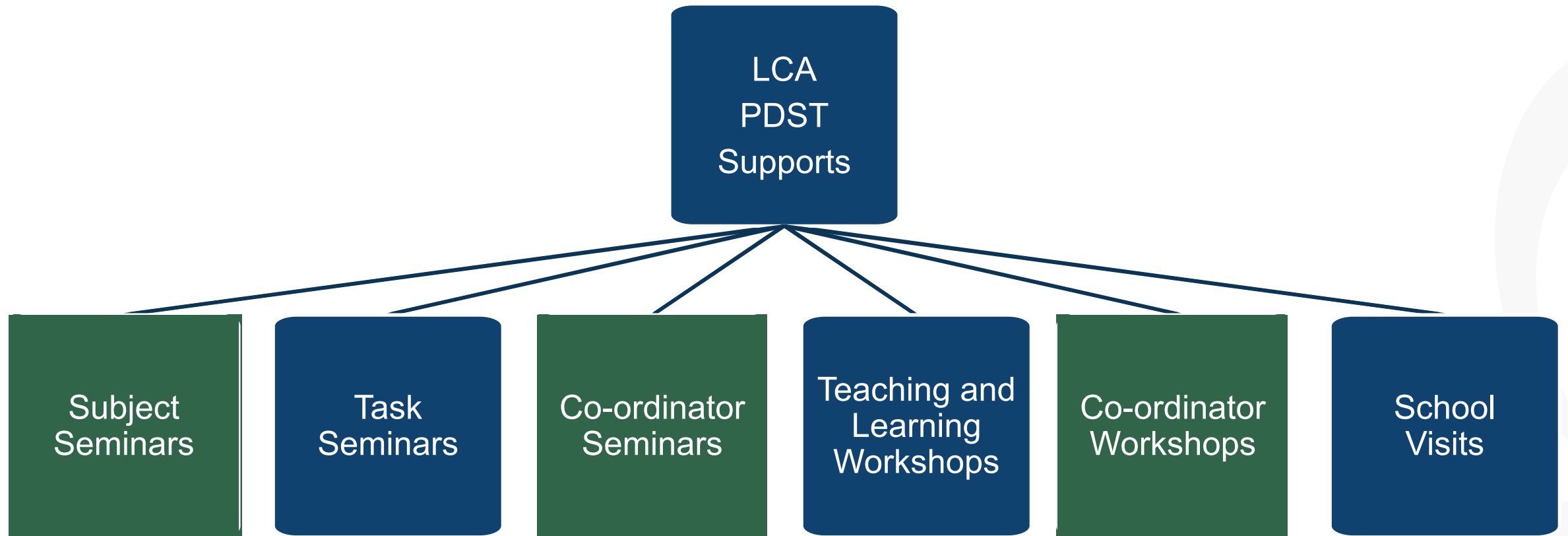
What we are

Teachers & School Leaders
Teacher Educators
Facilitators/Enablers
Purveyors of Lifelong Learning

What we are not

Evaluators
Policy Makers
Curriculum Developers

LCA supports provided by PDST



LCA Curriculum framework

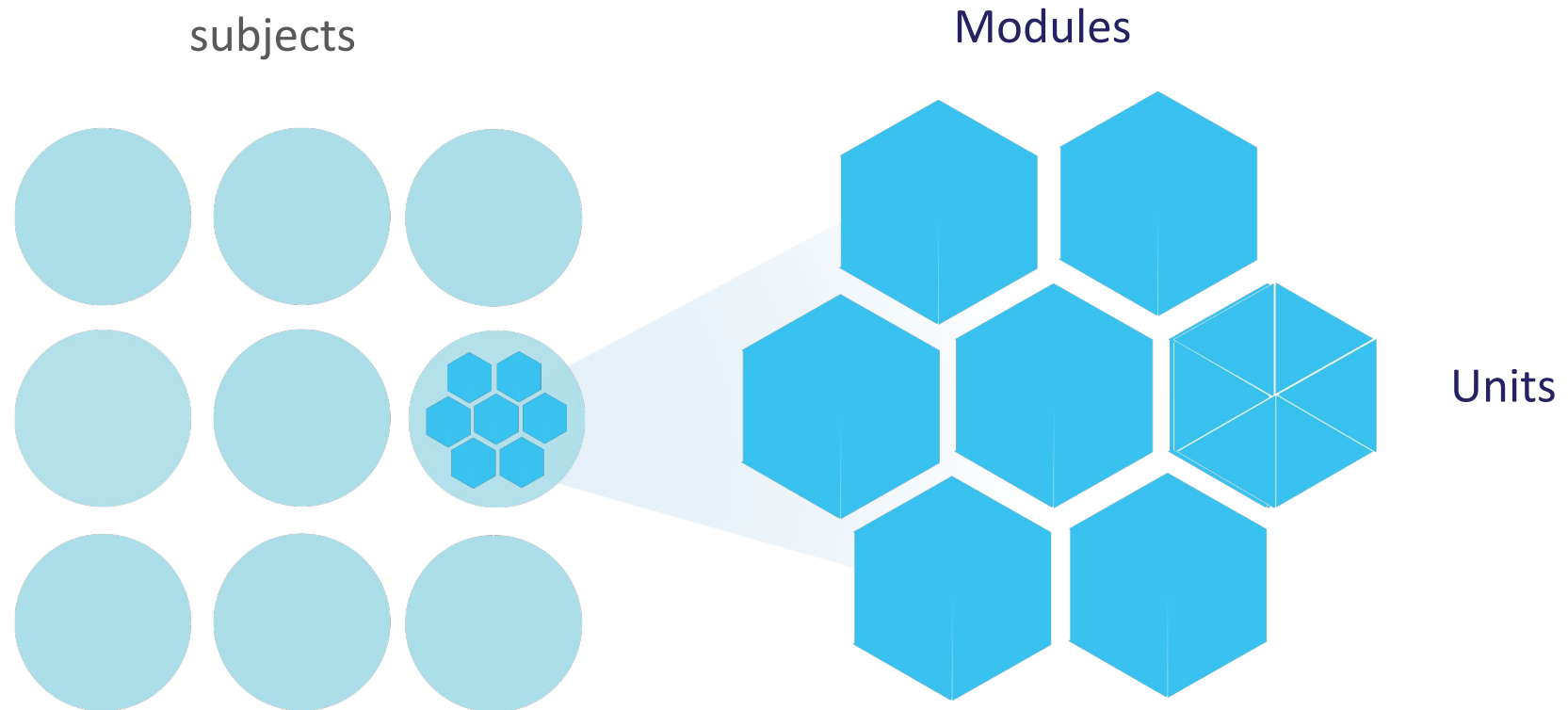
LCA Curriculum Framework & Credits Allocation

Course Name	Year One		Year Two	
	Session 1 Sept-Jan	Session 2 Feb-June	Session 3 Sept-Jan	Session 4 Feb-June
Vocational Preparation	Vocational Preparation & Guidance	→ 2	→ 2 Enterprise 2	→ 2 Guidance 2
	English & Communications (Exam = 12 credits)	Personal & Social Communications	Communication & the Digital World	Communication in Media Express Yourself
	VOC. PREP. TASK		PERSONAL REFLECTION TASK PART 1	
	PERSONAL REFLECTION TASK PART 2		PERSONAL REFLECTION TASK PART 2	
Vocational Education	Mathematical Applications (Exam = 10 credits)	Mathematics & Planning	Mathematics & the World Around Me	Mathematics & Life Skills Mathematics & Work
	Vocational Specialisms (Choose 2 from 11 options (Exams = 12 credits each))	1 1	1 1	1 1
	Introduction to Information and Communication Technology	→	2	→ 2
	VOC. ED. TASK		VOC. ED. TASK	
General Education	Arts Education (Drama, Dance, Visual Arts, Music)	→	2	→ 2
	Social Education (Exam = 10 credits)	1 My/Com →	1 Ctp/tes1 1 Soc/Health	1 Ctp/tes 2 1 Tkl/Change 1 Soc/Health
	Languages (2 exams = 6 credits each)	1	1	1 1
	Leisure & Recreation (including PE.)	→	2	→ 2
	GENERAL ED. TASK		CONT. ISSUES TASK	
Elective Courses	2	2	2	2
30 Hour Modules (3 to 4 class periods per week)			PRACTICAL ACHIEVEMENT TASK	
<p>→ Indicates that the module credits may be taught in this session but <u>cannot</u> be claimed until May of that year.</p> <p>□ Indicates that the module credits can be claimed at the end of this session.</p> <p><i>All tasks have a value of 10 credits each</i></p>				

LCA Curriculum Framework

Vocational Preparation	<ul style="list-style-type: none"> • Vocational Preparation & Guidance • English & Communications
Vocational Education	<ul style="list-style-type: none"> • Mathematical Applications • Vocational Specialisms* (<i>Choose 2 from 11 options</i>) • Introduction to Information Communication Technology
General Education	<ul style="list-style-type: none"> • Arts Education (<i>Dance, Drama, Music, Visual Arts</i>) • Social Education • Languages (<i>Gaeilge and French/Italian/German/Spanish</i>) • Leisure & Recreation (<i>including Physical Education</i>)
Elective courses	<ul style="list-style-type: none"> • Religious Education (for example) • Science (for example)

LCA Programme Structure



LCA Curriculum Framework

Please fill in:

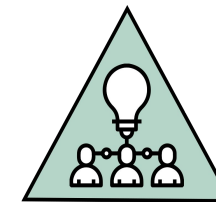
Two specialisms

Your own subject (if different)

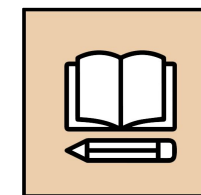
Any elective

LCA Curriculum Framework & Credits Allocation

Course Name	Year One		Year Two	
	Session 1 Sept-Jan	Session 2 Feb-June	Session 3 Sept-Jan	Session 4 Feb-June
Vocational Preparation	Vocational Preparation & Guidance	→	→	→
		Enterprise		Guidance
	English & Communications (Exam = 12 credits)	Personal & Social Communications	Communication & the Digital World	Communication in Media
				Express Yourself
	VOC. PREP. TASK			
Vocational Education	Mathematical Applications (Exam = 10 credits)	Mathematics & Planning	Mathematics & the World Around Me	Mathematics & Life Skills
	Vocational Specialisms (Choose 2 from 11 options (Exams = 12 credits each))			
	Introduction to Information and Communication Technology	→		→
	VOC. ED. TASK		VOC. ED. TASK	
General Education	Arts Education (Drama, Dance, Visual Arts, Music)	→		→
	Social Education (Exam = 10 credits)	My/Com	Ctp/Iss1	Ctp/Iss 2
		→	Soc/Health	Tk/Charge
	Languages (2 exams = 6 credits each)			
	Leisure & Recreation (including P.E.)	→		→
	GENERAL ED. TASK		CONT. ISSUES TASK	
Elective Courses				
30 Hour Modules (3 to 4 class periods per week)				
			PRACTICAL ACHIEVEMENT TASK	
<p>→ Indicates that the module credits may be taught in this session but cannot be claimed until May of that year.</p> <p>□ Indicates that the module credits can be claimed at the end of this session.</p>				
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ACTIVITY



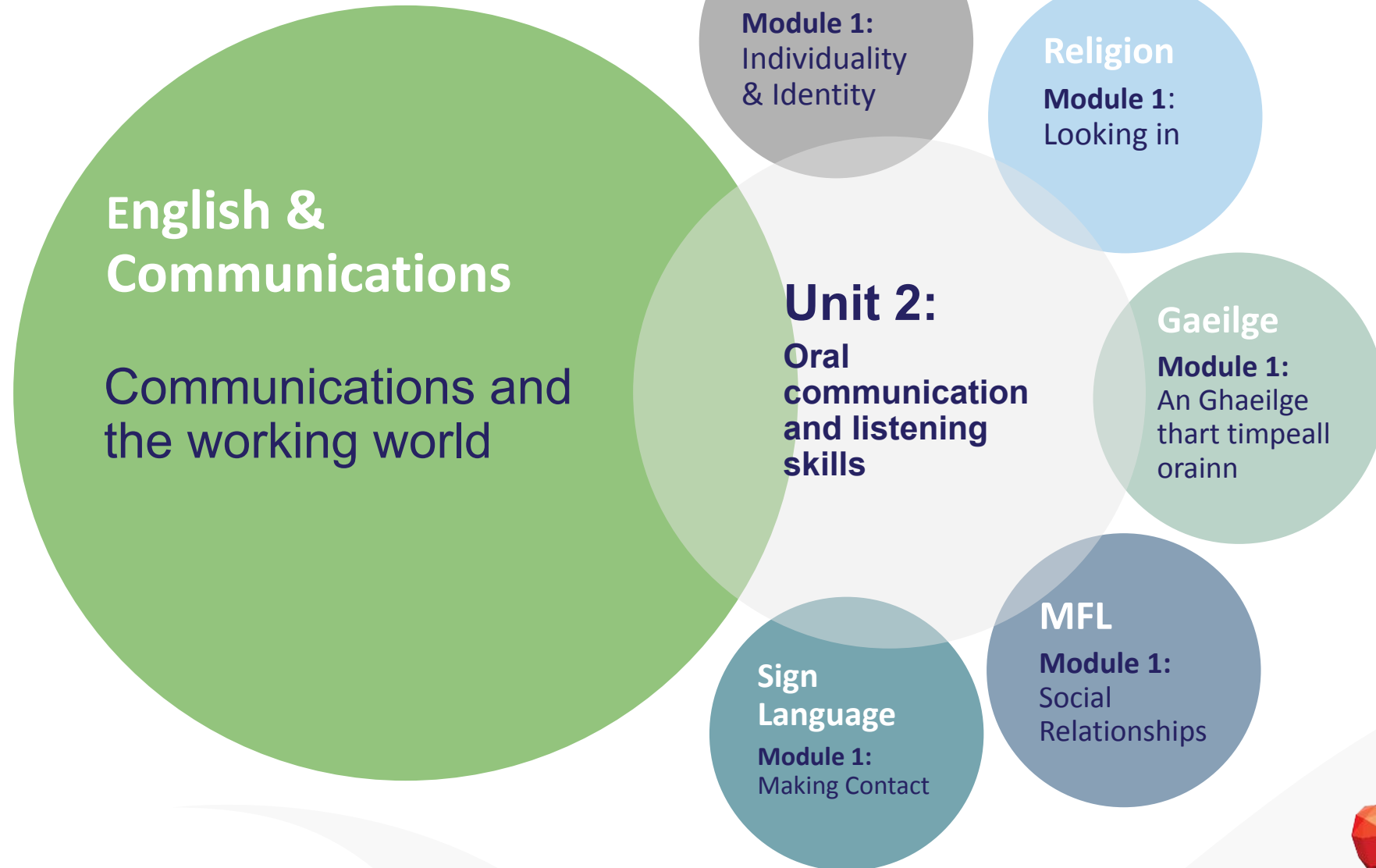
WORKBOOK

Layout of Module Descriptors

Transdisciplinary Links
Rationale
Number and sequence of modules
Description of Modules
General Recommendations
Modules
Purpose
Prerequisites
Aims
Units
Learning Outcomes
Teacher Guidelines
Key Assignments

<https://www.curriculumonline.ie/Senior-cycle/LCA/>

Transdisciplinary Nature of the LCA Course



LCA Certification

Awarded at three levels

Pass

120 - 139 credits

60-69%

Merit

140 - 169 credits

70-84%

Distinction

170 - 200 credits

85-100%

Students who acquire less than 120 credits or who leave the programme early will receive a
'Record of Experience'

LCA Modes of Assessment

Satisfactory completion of modules + 90% attendance					62 credits	31%
<ul style="list-style-type: none"> Evidence of completion of key assignments for each module One credit per course module in which there is a final exam Two credits per course module in which there is NO final exam 						
7 Student tasks @ 10 credits each					70 credits	35%
<i>Vocational Preparation</i>		<i>Vocational Education (x2)</i>		<i>General Education</i>		
<i>Contemporary Issue</i>		<i>Personal Reflection</i>		<i>Practical Achievement</i>		
Final examinations					68 credits	34%
English & Communication	Vocational Specialisms (x2)	Languages (x2)	Social Education	Mathematical Applications		
12 credits	12 credits each	6 credits each	10 credits	10 credits		
Total					200 credits	100%

LCA Modes of Assessment

<p>Satisfactory completion of modules + 90% attendance</p> <p>Evidence of completion of key assignments for each module</p> <p>One credit per course module in which there is a final exam</p> <p>Two credits per course module in which there is NO final exam</p>	<p>62 credits</p>	<p>31%</p>
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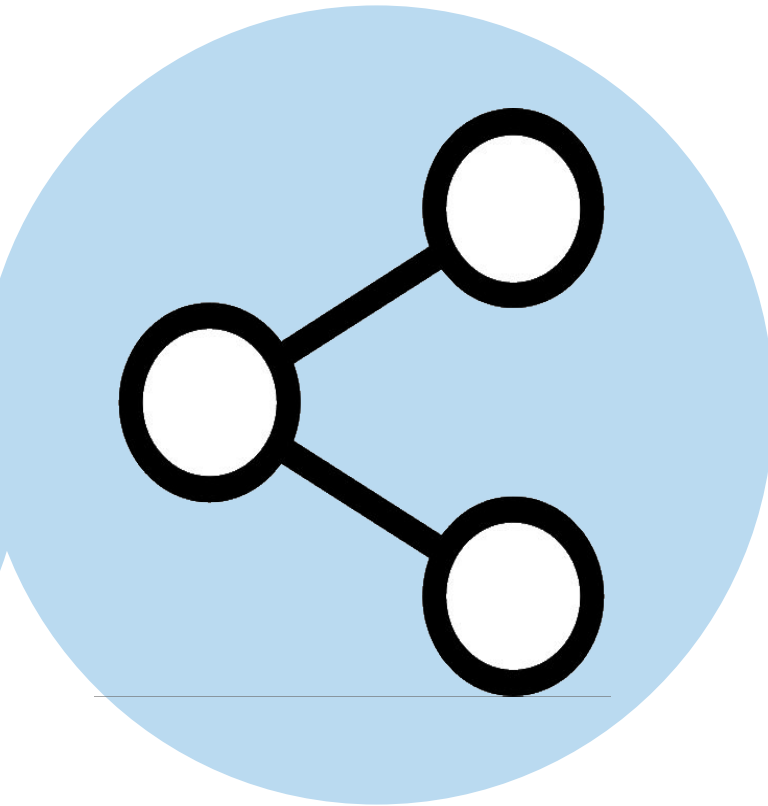
What is a key assignment?



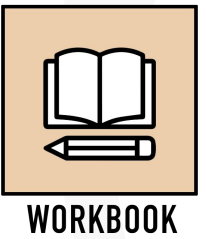
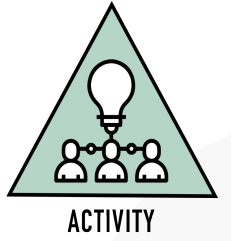
Think



Pair



Share



What is a key assignment?



Credit Records

It is essential to keep a record of attendance for EACH MODULE

CREDIT RECORDS SHEET

Class Name:		Session:		Course:	
Module Title:			Module Code:		
Surname	Firstname	Key Assignments Completed	90% Attendance Achieved	Credit	Comment if credit not awarded

Signed _____ Date _____

LCA Modes of Assessment

Satisfactory completion of modules + 90% attendance

Evidence of completion of **4 key assignments** for each module

One credit per course module in which there is a final exam

Two credits per course module in which there is NO final exam

62
credits

31%

7 Student tasks @ 10 credits each

<i>Vocational Preparation</i>	<i>Vocational Education (x2)</i>	<i>General Education</i>
<i>Contemporary Issue</i>	<i>Personal Reflection</i>	<i>Practical Achievement</i>

70
credits

35%

Summary of Tasks

Task	Credit	%	Completed in session	Assessed
1. General Education <i>Originating in Arts Education, Leisure & Rec., Language or Social Education</i>	10	5	1	Jan/Yr 1
2. Vocational Preparation <i>Originating in either Vocational Preparation & Guidance or English & Communication</i>	10	5	2	May/Yr 1
3. Vocational Education - 1st specialism <i>Originating in one Vocational Specialism</i>	10	5	2	May/Yr 1
4. Vocational Education - 2nd specialism <i>Originating in the second Vocational Specialism</i>	10	5	3	Jan/Yr 2
5. Contemporary Issues <i>Anchored in Social Education</i>	10	5	3	Jan/Yr 2
6. Practical Achievement <i>Generally out of school/centre</i>	10	5	3	Jan/Yr 2
7. Personal Reflection <i>Statement 1 from year one will be stored and returned to SEC when statement two is complete</i>	10	5	on-going	May/Yr 2

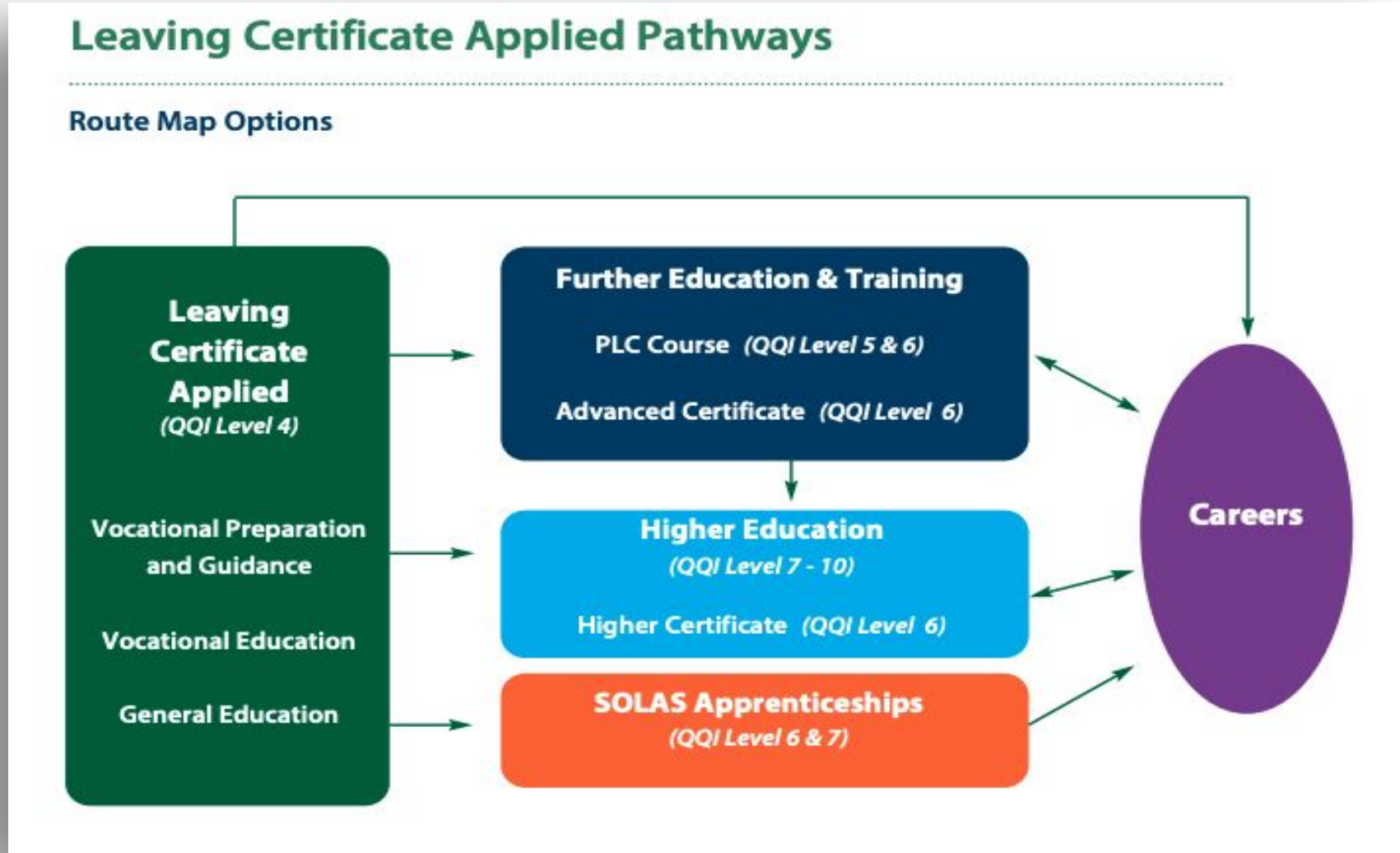
LCA Modes of Assessment

Satisfactory completion of modules + 90% attendance					62 credits	31%
Evidence of completion of 4 key assignments for each module						
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Two credits per course module in which there is NO final exam						
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<i>Vocational Preparation</i>		<i>Vocational Education (x2)</i>		<i>General Education</i>		
<i>Contemporary Issue</i>		<i>Personal Reflection</i>		<i>Practical Achievement</i>		
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English & Communication	Vocational Specialisms (x2)	Languages (x2)	Social Education	Mathematical Applications		
12 credits	12 credits each	6 credits each	10 credits	10 credits		
Total					200 credits	100%

Final Examinations

Area	Credits
English & Communication Oral and written incorporating audio visual	12
Vocational Specialisms (x2) Practical and written – practical briefs issued in advance <i>(see next slide for details)</i>	12 each
Languages (x2) Oral and written incorporating aural	6 each
Social Education Written incorporating audio	10
Mathematical Applications Written – research topic (Q. 2. issued in advance)	10
Total	68

The Leaving Certificate Applied Route Map



Recommended Reading

LCA Chief Examiners Report 2014

For full details go to examinations.ie

DES Inspectorate Report

<https://www.education.ie/en/Publications/Inspection-Reports-Publications/>

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Explored the approaches to teaching, learning and assessment in LCA.

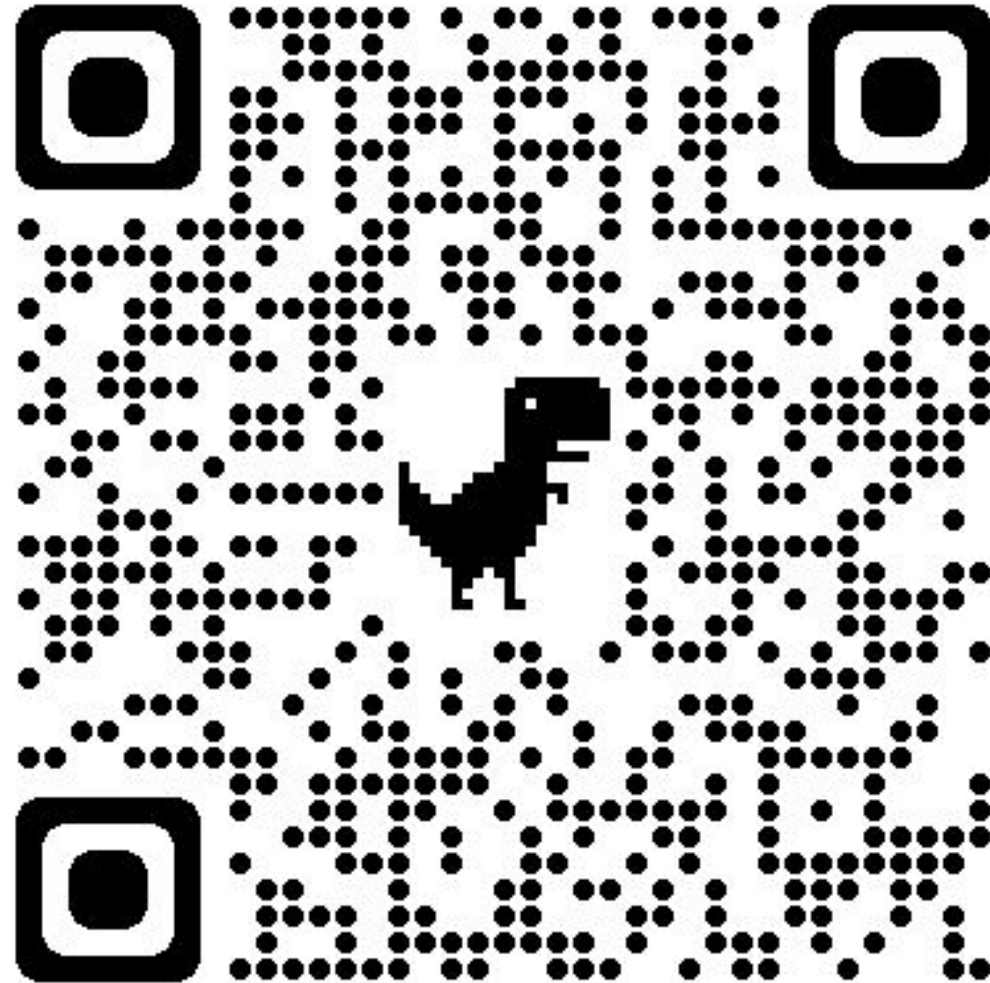
Become familiar with your subject specific module descriptor



End of Session 1

Padlet

https://padlet.com/m_dowling/c322wmh7wsuo





Session 2

Agriculture Horticulture

Leaving Certificate Applied



Overview.
course
outline
booklet
ncca



This course is designed to introduce students to natural resources in their area



It is practical in nature with an emphasis on out of school activities

Modules. Horticulture

- 1. Basic Horticulture code 10
- 2. Garden Design Code 11
- 3. Floristry, Fruit and Vegetables Code 12



Agriculture

A photograph of a forest path. The path is covered in fallen brown leaves and leads through a dense forest of tall, thin trees. The ground is covered in a thick layer of fallen leaves, and the trees are mostly deciduous with green foliage. The lighting is soft, suggesting a slightly overcast day or a shaded forest interior.

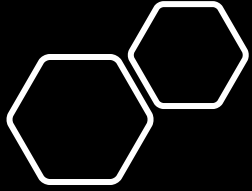
4. Forestry Code 13

5. Grass Code 14

6. Milk and Meat
Production Code 15

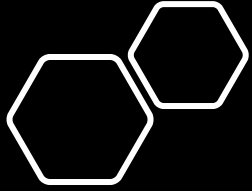
Overview of each module

- Basic horticulture....an activity based module.
- Topics include...parts of a plant
- Photosynthesis
- Making growing media
- Sowing seeds
- Care of seedlings
- Composting
- Soil testing and care of garden tools



Garden Design

- Garden styles
- Sketches and pictures of gardens
- Study of lawns/ golf course
- Garden features
- Naming flowers and shrubs
- Naming and planting trees



Floristry, Fruit and Vegetables

- Pick one theme
- Visits to shop, farm or production unit
- Detailed study of a crop from sowing to harvest
- Commercial enterprises
- Storage and transport of the crop
- Pests and diseases of the crop
- Irish and exotic vegetables



Forestry

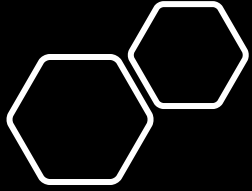
- Forest walk
- Contact coillte
- Safety
- Naming of deciduous and coniferous trees
- Dormancy
- Winter twigs
- How climate influences forestry





grass

- Collection and sketching grasses
- Visit to a farm to identify grasses
- Hay and silage production
- Identification of weeds and poisonous plants
- Drainage
- Safety on the farm



Milk and Meat production

- Visit to a dairy or meat farm
- Contact Teagasc
- Housing and feeding of animals
- Replacement stock
- Care of a pregnant animal
- Farming and the environment
- Animal diseases and treatments

Specialism and electives

4 modules

Between 1
and 4
modules

How many modules need to be completed



- Over two Years four modules are taken for the Specialism
- One per session, September to end of January and February to June.
- Each module is approximately 30 hours duration
- This is approximately 3 - 4 class periods per week over one session
- Any four modules may be taken. Each module is a separate entity. There are no mandatory modules
- The modules may also be taken as an elective, between 1 and 4 modules need to be completed in this case

Units in Each Module



Horticulture
modules
have 4
units



Agriculture
modules
have 3
units

Key assignments

keep a record of all key assignments

a

Each module has 4 key assignments which must be completed in order to get a credit for the module.

There is one credit for each module.

All learning outcomes must also be completed

In module 1 completing a report on a visit to a garden centre is a key assignment although it is not listed in the learning outcomes

Key assignments continued

- Key assignments are seen as the minimum requirement needed to gain credit for a module
- Evidence of each assignment is required
90% attendance is also required to gain the credit
- Modules in exam courses get one credit. 4 credits for Ag Hort
- Non exam courses get two credits
- Key assignments are printed at the end of each module.
- They should be stored until appeals and exams are over



Task

- One task must be completed if students are taking Agriculture as a Vocational Specialism.
- The task may be completed either in session 2 or in Session 3.
- This is agreed between the Vocational Specialism teachers and the Coordinator
- There is no task if students are taking this subject as an Elective



Is there an Examination in Agriculture / Horticulture



If students are taking this subject as a specialism there are two examinations



A practical performance test



A written examination set by the State Examinations Commission

Practical Performance Test



The practical performance test consists of a performance of any skill or procedure used in agriculture or horticulture.



The performance test carried out by the candidate must not have been previously presented by that candidate as a student task.



It must be such that it can be completed in a 10 – 15 minute period, allowing 5 – 10 minutes for a short discussion between the examiner and the candidate.

Examples of Practical Skills demonstrated

-
- A wide range of tests was carried out by candidates and included the following:
- cleaning various garden tools, such as pickaxe
- demonstrating conditions required for germination and calculating percentage germination rates
- making silage samples in jars and comparing ensiling methods
- various planting activities, such as onion sets, flower bulbs, trees in the school grounds
- taking cuttings
- various chemical tests, such as testing leaves for starch, testing milk for protein content, testing soil for nitrogen and phosphorus content, testing soil pH.
-



The written examination comprises two sections.

Section One

has one question composed of 18 parts range across the whole course and candidates are required to answer any twelve.

Section Two

has 6 questions, questions 2 to 7 on the paper – one corresponding to each of the six modules – and candidates are required to answer any 4.

Each question consists of 4 parts

State Examinations Commission Leaving Certificate A

Vocational Specialism Agriculture, Horticulture (240 marks)

Wednesday, 16 June 2021, Morning, 9.30 to 11.00.

WRITE ALL ANSWERS INTO THIS ANSWERBOOK. THERE ARE TWO SECTIONS IN THIS EXAMINATION PAPER. Section One: one question, of which twelve parts must be answered.

Overall credits breakdown



Breakdown of marks for Agriculture Horticulture



Four modules 4 credits



One task 10 credits



One practical exam 4 credits



One written paper 8 credits



Content : 26 credits out of 200 = 13% of total marks

Text Book


- There is no specific text book and worksheets for all modules and topics can be found on Scoilnet
- A quiz for all exam questions can be found on [Quizlet.https://quizlet.com/class/2565364/](https://quizlet.com/class/2565364/)

Things to bear in mind

- Check if materials are available for use by students
- Seed trays
- Labels
- Trowels
- Scoops
- Seeds
- Secateurs
- Pots
- Dibbers and widders
- Compost/perlite
- Sets of equipment may be made for each student



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Plant physiology and growing media Unit 1

We will have a look at some of the learning outcomes in this unit

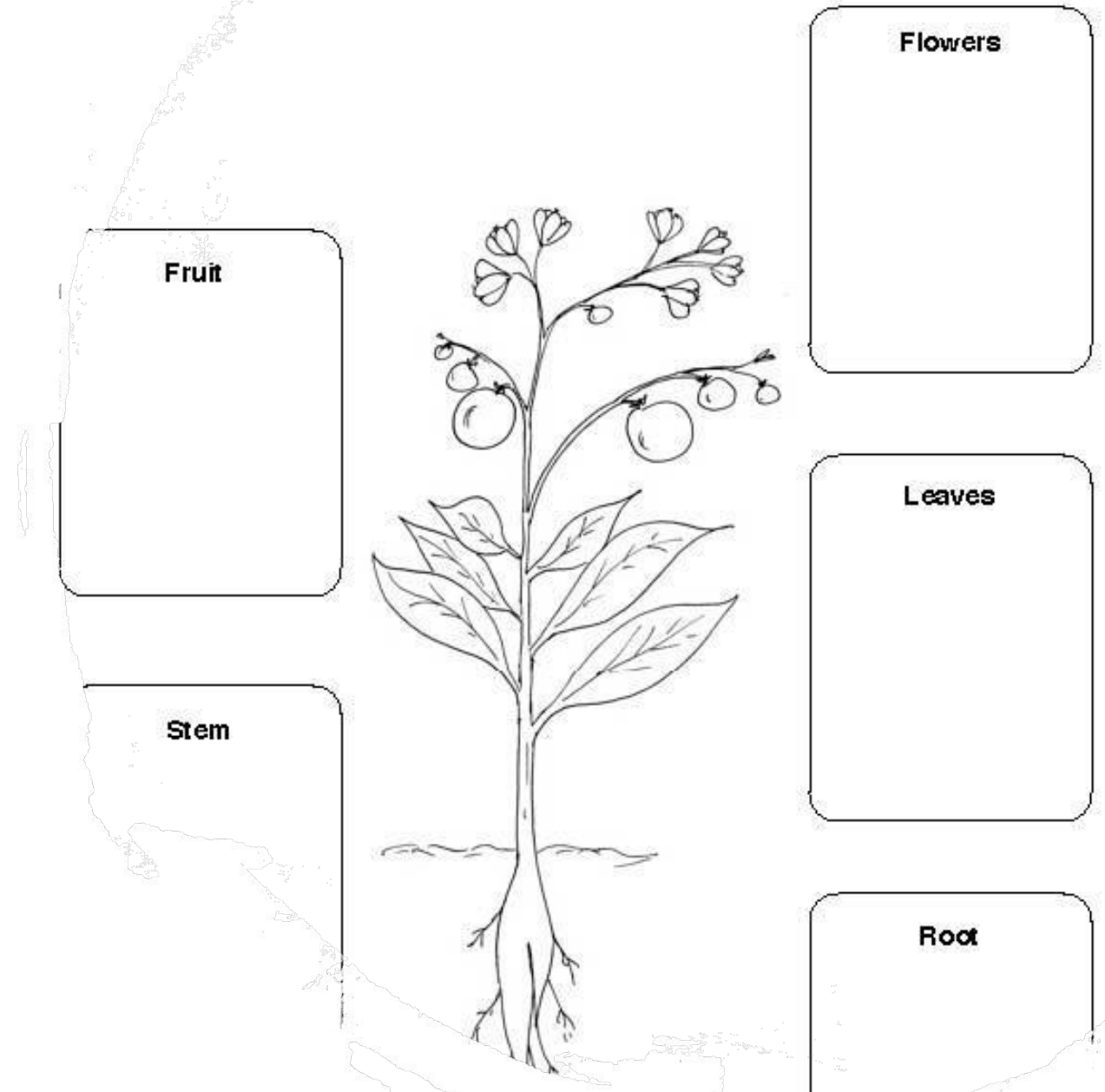
https://www.scoilnet.ie/browse-search/?q=*&fq=%7B!tag%3Dschoo_l_grade%7Dschoo_l_grade%3A9&fq=%7B!tag%3Dschoo_discipline%7Dschoo_discipline%3A62



Module 1 Basic Horticulture

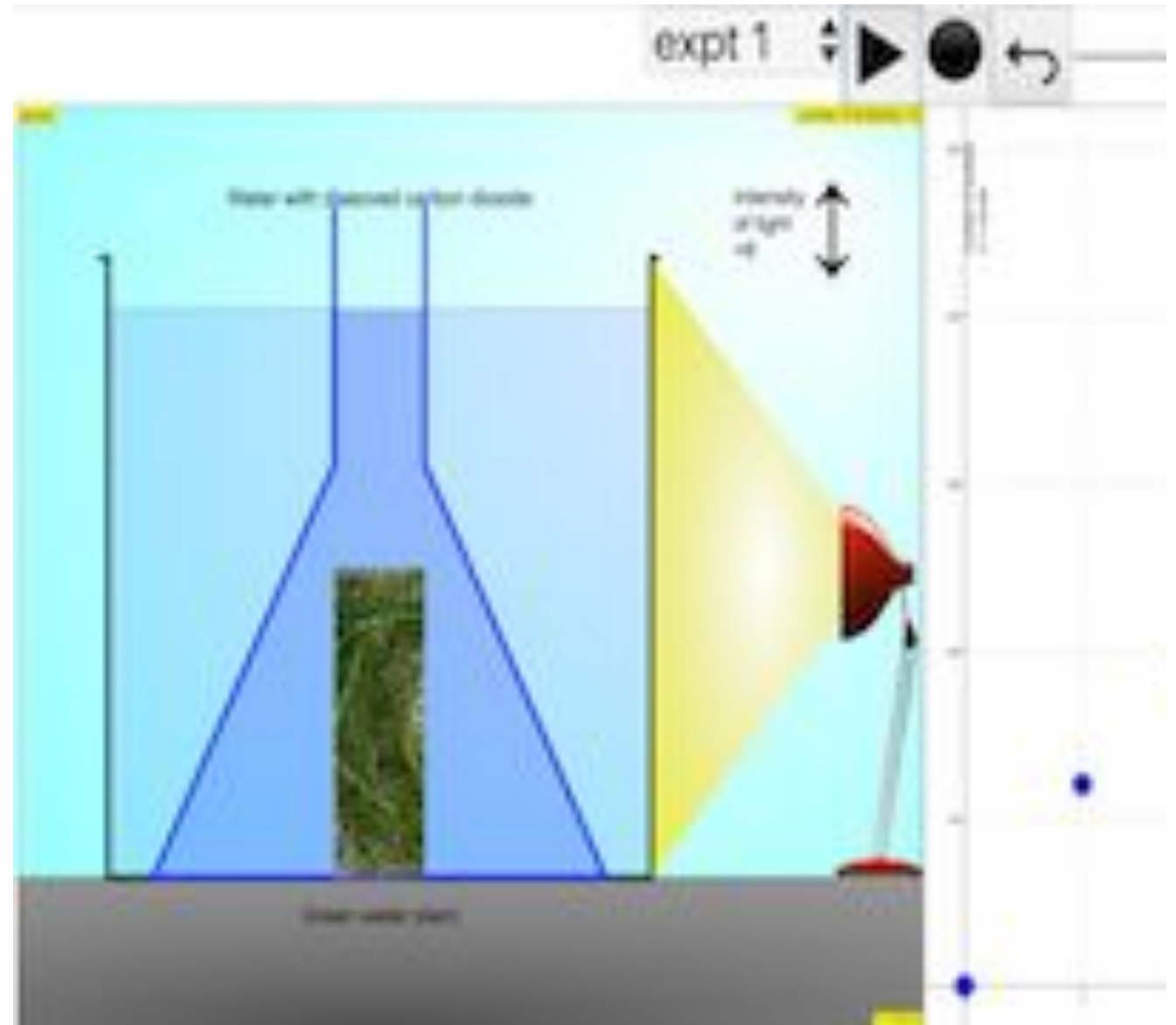
- Unit 1 Plant Physiology and Growing Media
- LO1 Identify the main parts of the plant and their functions
- Ideas
- Collect plants and dry them

Parts of a plant



LO2. Investigate
Photosynthesis by carrying
out a suitable scientific test

- https://iwant2study.org/lookangejss/biology/ejss_model_photosynthesis/photosynthesis_Simulation.xhtml





1. What is the title of this investigation?

Name the plant being used?

List the steps needed to complete the investigation.

How do you know that the plant is photosynthesizing?

Why is the lamp moved?

Agriculture/Horticulture

Basic Horticulture

Unit 1

Plant Physiology and Growing Media

Photosynthesis

Name: _____ Date: _____

1. What is photosynthesis?

2. Write a word equation for photosynthesis.

1. _____ + 2. _____ $\xrightarrow{\hspace{1cm}}$ 3. _____
4. _____ + 6. _____

Plant Minerals

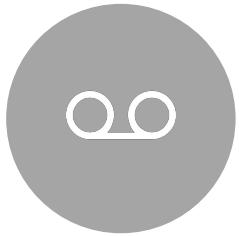


Keywords/ wordbank

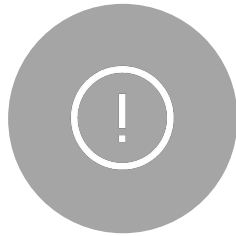
Plant nutrition worksheet

Type of fertilizer	Function	Use
Nitrogen		
Magnesium		
Potassium		
Phosphate		

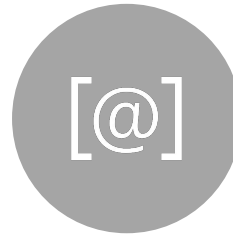
Main nutrients



NITROGEN



PHOSPHOROUS



K POTASSIUM



Identify a range of growing media in use today

- Moss Peat
- Compost
- Perlite
- Vermiculite
- Sand
- Water



- <https://www.agriland.ie/farming-news/watch-5ac-of-greens-in-55m%c2%b2-no-imports-hyper-local-food/>



Assemble a growing medium specifically for growing seeds

- Use equal parts sand, compost and perlite
- Use basins for making the mixtures



Evaluate the various methods of making garden compost from garden or household waste

- <https://edpuzzle.com/assignments/614e2065a33f6f4157233fe1/watch>
- Use ed puzzle

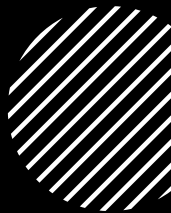


Key assignments

- I propagated a plant
- I properly cleaned and stored a garden tool
- I carried out a test on soil
- I completed a report on a visit to a garden center



Visit to a garden centre. KA4



Visit garden centre in advance and make out a worksheet.

Bring clipboards and pencils and a camera

A short report on the visit should be completed

Getting organise d

- Provide students with a copy of the learning outcomes for each module and tick each one off when complete
- Folders, with pockets may be more suitable than notebooks.
- Provide a box and keep all students work in class.
- Get out and do practical work as often as possible

Tips from Experience



Complete one learning outcome each day and get students to keep a record that this was done



Do not allow written work to go home



Explore the possibility of each student getting a laptop



Work with other teachers to maximise the possibility of visits

Useful links and resources

- <https://www.curriculumonline.ie/Senior-cycle/LCA/Agriculture-Horticulture/>
- <https://www.scoilnet.ie/go-to-post-primary/>
- <https://www.examinations.ie/exammaterialarchive/>
- **Padlet. A shared Electronic noticeboard.** <https://padlet.com/sciencedeptccs/v8ui9symx4fyf92o>
- [**EdPuzzle.**](#)

Educational video with built in questions. <https://edpuzzle.com/assignments/614e2065a33f6f4157233fe1/watch>

- [**Garden.ie**](#)
- <https://www.youtube.com/watch?v=CEYr0hyxEzw>. For photosynthesis video
- Schoolgardening.rhs.org
- Quizlet for exam questions. <https://quizlet.com/class/2565364/>
- Iwanttostudy.org for photosynthesis simulation



End of Session 2



Session 3



Module 1 Unit 2

Propagation methods

Reproduction and increasing plants
There are 11 Learning Outcomes in this Module

what do you need?

Basins

baskets

large seeds

pots and containers

sandpaper

Dibber and Widger

trays

Compost, Perlite, Sand, Vermiculite

Spray mister

Propagator

labels

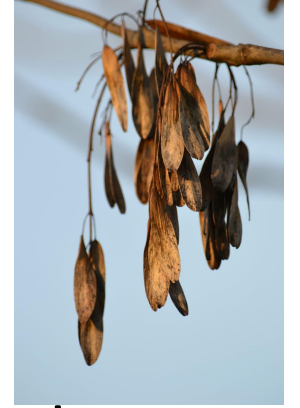
Secateurs



dormancy
in Seeds

collect seeds in
september

What is dormancy?



- When all the necessary requirements are supplied and the seed, although still alive fails to germinate, it is said to be dormant
- A period of time when growth, development and activity in the seeds is stopped...the seed is resting
- It is like a built in mechanism to delay germination until the time is right
- The seed is alive but inactive.
- many seeds require a period of dormancy before germination. for example Ash and Sycamore seeds



Outline 3
methods used
to overcome
dormancy.
LO1.
Chestnut
activity

METHODS TO OVERCOME DORMANCY

- › Mechanical scarification
- › Soaking in water
- › Acid treatment
- › Cold stratification
- › Dry storage
- › Treatment with chemicals



Stratification
placing the seeds
in a plastic bag
with a sand and
compost mixture.
Chill in the fridge
at 4 degrees

Scarification
put a cut on the
seed
or heat the seed to
damage the coat





To investigate dormancy in seeds Sow, Stratify or store?

Complete worksheet/ investigation

how to store seed.

Store in a cool dark place.

Cones are stored in their entirety.....shake out seed before sowing.



Seed categories

Nuts. Oak, Beech, Chestnut.

Fleshy fruits. Hawthorn, Rowan, Elder

Winged seeds. Ash, Sycamore, Maple.

Cones. Alder, Birch and Conifers

Today we are using Chestnuts.

Remove the cup and drop the seed into a bucket of water. Throw away the ones that float.

The first chestnuts to drop are likely not to grow as the seed is not ripe.

Demonstrate the general requirements for seed germination. LO2

the seed begins to grow

Water
Oxygen
Heat
Light?



Which seeds to sow?

Peas

Beans

Lettuce

Wallflower

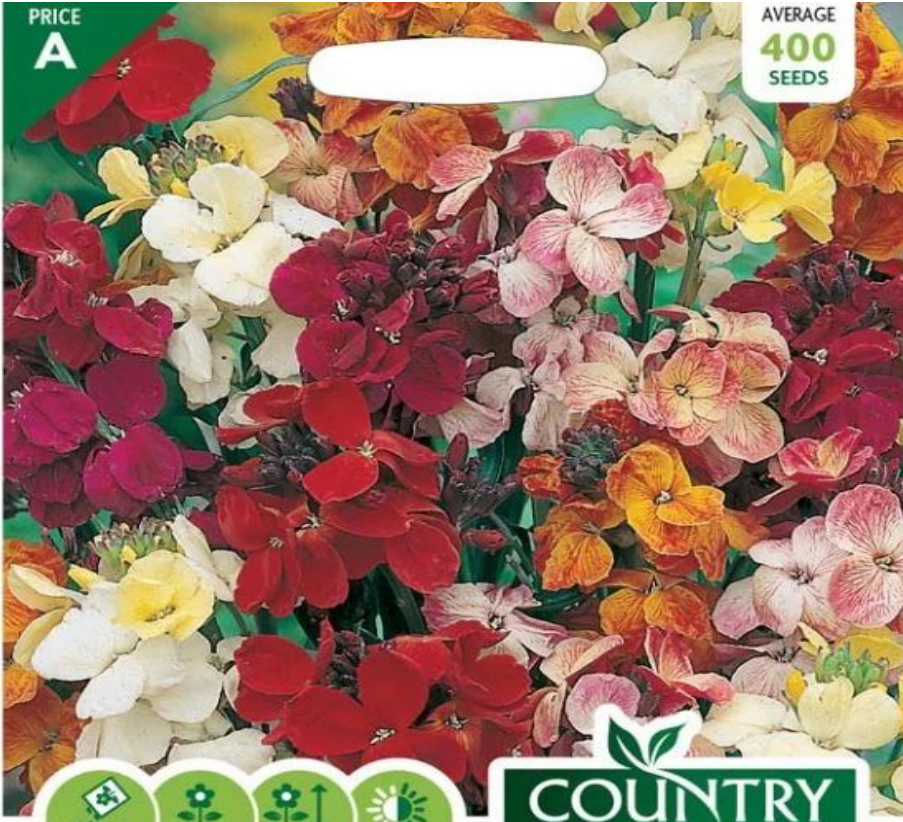
forget me not.



Wallflowers

PRICE **A**

AVERAGE **400 SEEDS**



COUNTRY VALUE

Wallflower Monarch Fair Lady

PROVIDES A WONDERFUL SHOW OF EARLY SPRING COLOUR FOR BEDS AND BORDERS

APR-JUL MAR-MAY 45CM PART SHADE

HARDY BIENNIAL



Wallflower Monarch Fair Lady

The lovely fragrance is best enjoyed if planted near to the house or in containers. Prefers sun or part shade and well drained soil.

GROWING INSTRUCTIONS

SOW Sow outdoors, April to July. In a prepared seed bed. Sow thinly in rows 23cm apart. Cover with 1.5cm fine soil. Firm gently and keep moist. Seedlings appear 14-28 days.

CARE When large enough thin out to 5cm apart. Keep moist and weed free. Transplant 20cm apart in flowering position in September to November.

FLOWERS March to May, the following year.

TIP Pinch out growing tip when 12cm high for bushier plants.

COUNTRY VALUE

Newmarket, Suffolk, CB8 7QB
Performance subject to growing conditions.
Packed in UK



Sow by

MIX Paper FSC® C005193

Sowing small seeds wallflowers

complete
worksheet



Wash clean and dry a seed tray



Make a seed planting mixture. Press firmly into the tray



Water the mixture



Check instructions on seed packet



Plant 20 seeds

Growing large seeds such as peas

Plant 20 seeds

This time holes are made for the seeds using a dibber

Cover the seeds and place in the propagator

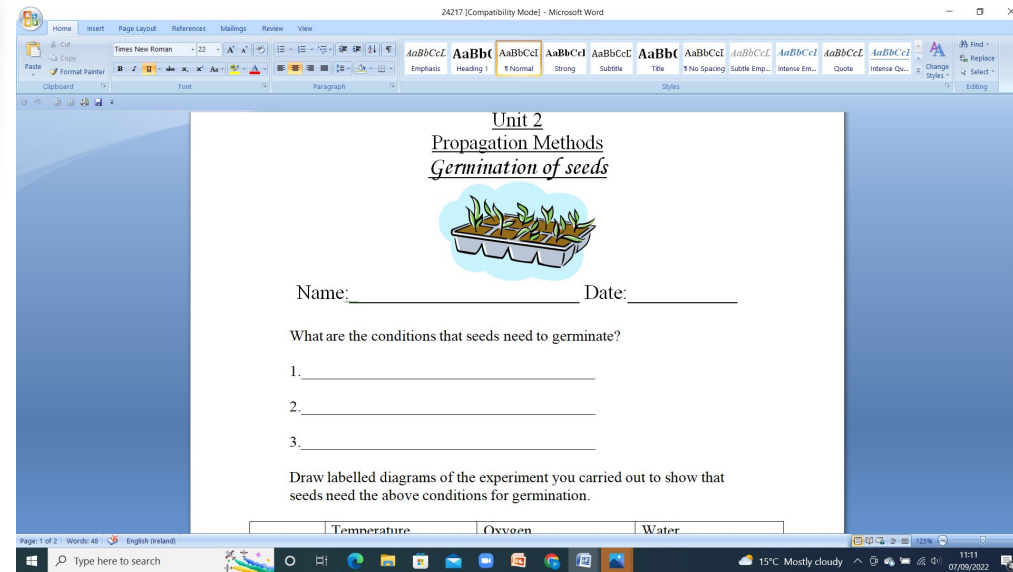




A propagator.



complete worksheet.





Test a chosen seed for %
germination
wallflowers and peas
LO4

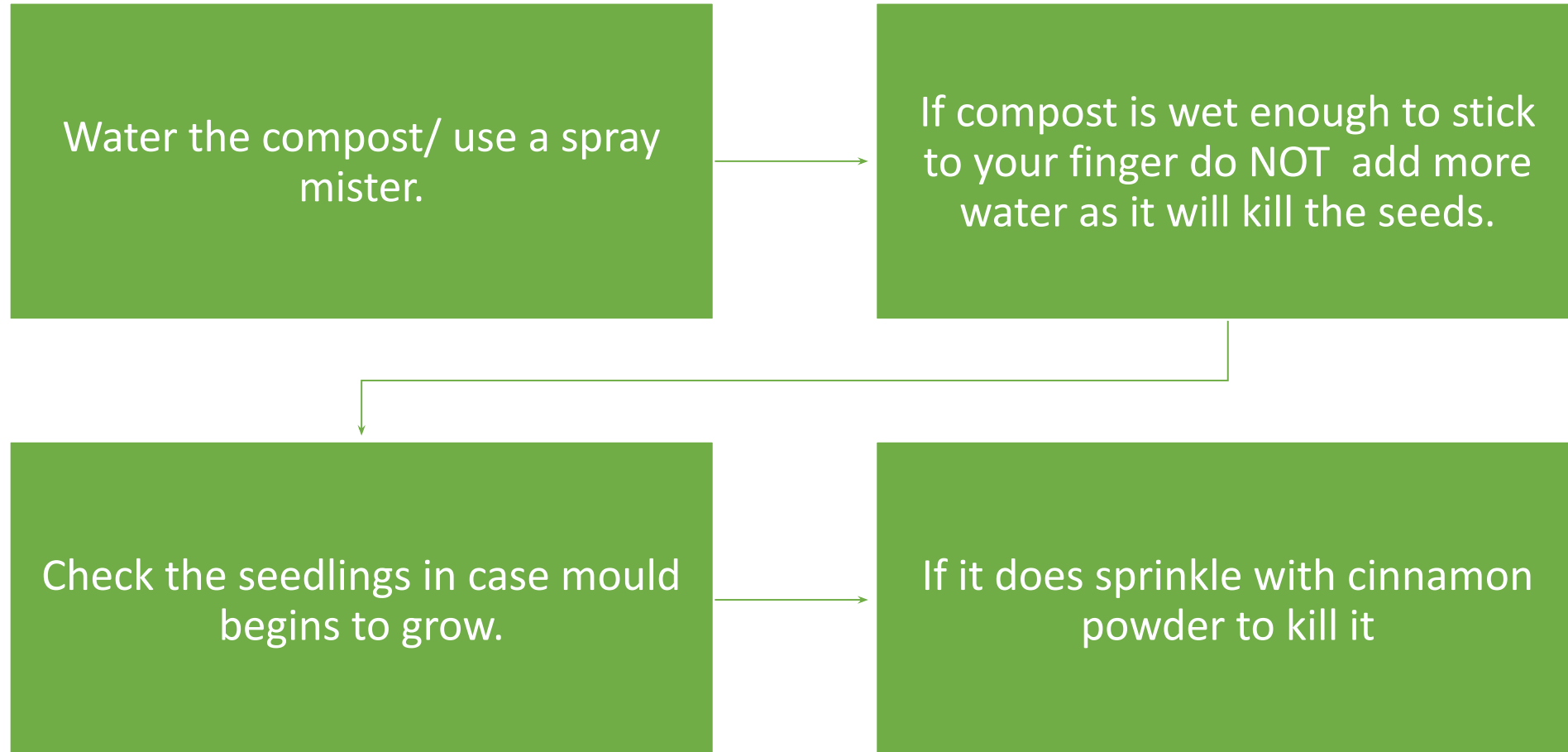
complete worksheet

The Practical Performance Test

This activity is suitable for students to complete



Care for seedlings using appropriate techniques. LO5



Damping off disease
caused by a fungus
kills seedlings



Transplanting seedlings



Depending on the time of year seedlings may need to be hardened-off
The seedlings are removed using a widger and placed into trays of fresh compost or individual pots.

When removing the seedling hold it by the seed leaves to avoid damage to stems.

Water lightly with a fine spray after transferring.

use peas for this activity as they are easier to handle



Name two artificial methods of plant propagation. L06



- Taking a cutting
- Dividing

List 3 plants from which cuttings
LO7

Student research

Complete worksheet



Busy Lizzie
geranium

Willow
honeysuckle
Mallow
hypericum

Taking the cutting





When taking a cutting wash and clean a pot. Fill to the marked level with compost. Place the cutting into the compost and cover with vermiculite. this keeps water away from the surface. Water well and leave in the propagator./ or cover with a plastic bag and seal with an elastic band

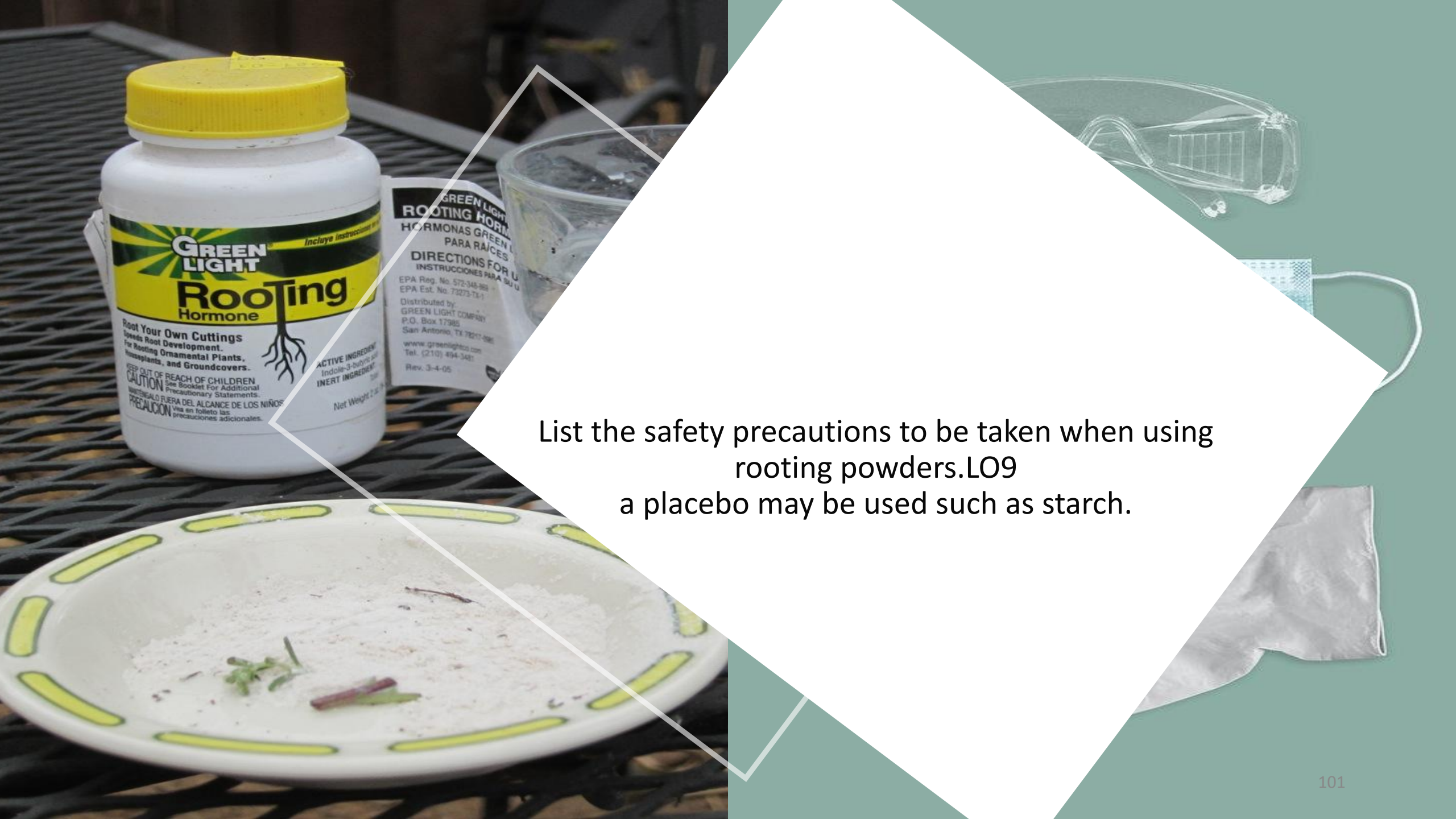
how many cuttings to put in each pot?

depends on size of pot

in square pots one cutting goes into each corner

label the cutting and put a date on it.





List the safety precautions to be taken when using rooting powders.LO9
a placebo may be used such as starch.

This activity is also suitable for the Practical Performance Test





Pot up and care for a rooted cutting LO10

- Water as necessary
- Place a drip tray under the cutting
- leave in a well lit place
- When a new leaf appears you know it has made roots.
- Do not pull the cutting

Suggest how two plant structures could be used as a natural method of propagation

1. Runners

type out the steps involved



Propagating strawberries

Runners with or without roots can be used.

Pin down the runner.

If there is a second runner attached to the first, remove it.

Leave them to root.

cut the runner off the parent plant or

leave them attached if you want them to fruit this year



Word	Meaning



End of Session 3