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Curriculum Development in Vocational Education and Training Schools

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Annex 19

**Delivery of Foreign Language in Occupation
Packages of the Learning Materials for:
Agricultural Technologies and Landscape technician
Grade: 9, 10, 11**

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Exit level of the whole period of Foreign Language education 9th – 12th grade

<p>Target group and position</p>	<p>Students in vocational schools trained to acquire qualification “Agricultural Technologies and Landscape” in 9th, 10th, 11th and 12th grade who need to communicate in English to native speakers and non-native speakers in English; students who will need English as part of their job to communicate on a frequent or occasional basis to foreigners at their work place using digital means of communication or related to digital means of communication. They do not usually need a foreign language in demanding interactive situations.</p>
<p>Entry level and Exit level</p>	<p>Listening A1+ towards A2</p> <p>Reading A1+ towards A2</p> <p>Spoken interaction A1+ towards A2</p> <p>Spoken production A1+ towards A2</p> <p>Writing A1+ towards A2</p> <p>The levels are described according to the Common European Framework of Reference for Languages: learning, teaching, assessment (CEFR). CEFR was designed to provide a transparent, coherent and comprehensive basis for the elaboration of language syllabuses and curriculum guidelines, the design of teaching and learning materials, and the assessment of foreign language proficiency.</p>

Entry and Exit Level

According to the European Framework of reference

	A1	A2	B1	B2	C1	C2
Listening						
Reading						
Spoken Interaction						
Spoken Production						
Writing						

	Entry level
	Exit level

Description of language skills Exit level

Level of language skills	General language skills	Professional language skills
<p>Understanding</p> <p>Listening A2</p>	<p>Can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local geography, employment).</p>	<ul style="list-style-type: none"> ➤ Can follow everyday conversations if speech is carefully articulated though words and expressions may need to be repeated. ➤ Can understand information about everyday events if speech is clear and pronunciation – standard. ➤ Can understand the main points in a well-structured, factual presentation in my area of work or interest. ➤ Can understand the main points in TV and radio broadcasts, advertisements, commercials, presentations and promotions if speech is clear, comparatively slow and topic is familiar. ➤ Can understand the main aspects of longer talks/meetings referring to routine work-related matters when standard language is used.
<p>Reading A2</p>	<p>Can read very short, simple texts. Can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and can understand short simple personal letters.</p>	<ul style="list-style-type: none"> ➤ Can understand short, simple texts composed of the most common words and expressions including international words. ➤ Can understand short, simple job-related texts and letters/orders. ➤ Can understand standard routine correspondence (letters, faxes, e-mails), e.g. concerning simple arrangements ➤ Can identify familiar and predictable information in advertisements, leaflets and timetables. ➤ Can understand simple operating instructions, e.g. in lifts, on public telephones, cash machines, etc. ➤ Can scan simple written materials such as brochures and short newspaper articles and extract factual information I need ➤ Can read and extract the necessary information related to my work tasks.

<p>Spoken interaction A2</p>	<p>can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities.</p> <p>can handle very short social exchanges, even though I can't usually understand enough to keep the conversation going myself.</p>	<ul style="list-style-type: none"> ➤ Can handle most situations likely to arise in business and on travelling to a country where the language is spoken. ➤ Can handle a conversation as long as it concerns routine activities within a familiar and/or predictable context. ➤ Can hold a spontaneous conversation on familiar topics of personal and professional interest. ➤ Can give or seek personal views and opinions on familiar topics in an informal discussion with friends/colleagues, agreeing and disagreeing politely.
<p>Spoken production A2</p>	<p>Can connect phrases in a simple way in order to describe experiences, events, hopes and ambitions related mostly to my professional life. Can briefly give reasons and explanations for opinions and plans related to familiar professional, everyday and social issues.</p>	<ul style="list-style-type: none"> ➤ Can give comparatively detailed accounts of experiences, events, work processes etc. ➤ Can give routine information about own area of work/department/company/product. ➤ Can give a brief summary of a story, e.g. the plot of a book or film and make comments on it. ➤ Can give reasons for my plans, opinions, decisions and actions.
<p>Writing A2</p>	<p>Can write short, simple notes and messages, relating to matters in areas of immediate need. Can write a very simple personal letter, for example thanking someone for something.</p>	<ul style="list-style-type: none"> ➤ Can write short letters, fax messages, e-mail messages, memos following a sample ➤ Can write SMSs using standard abbreviations. ➤ Can take notes related to matters of immediate interest in work ➤ Can fill in forms or questionnaires briefly describing personal and job-related information. ➤ Can produce short messages, faxes or e-mails with simple variations on memorised language. ➤ Can give directions how to get to a meeting, place or company in a written form. ➤ Can give short accounts of past or present events and activities, or of future plans. ➤ Can briefly describe something or somebody.

GRADE 9

Description of module content and learning objectives

<p>Module objectives</p> <p>9th grade</p> <p>Module 1</p> <p>Focus on vocabulary</p> <p>Use of terminology in the foreign language</p>	<p>The module is skill-oriented and emphasizes on developing and consolidating practical skills in a variety of relevant work-related contexts. It focuses both on fluency in language use as well as on accuracy.</p> <p>Students learn and practice how to:</p> <p>General linguistic range</p> <ul style="list-style-type: none"> • use isolated words/signs and basic expressions in order to give simple information about themselves. • use a very basic range of simple expressions about personal details and needs of a concrete type. • use some basic structures in one-clause sentences with some omission or reduction of elements. <p>Vocabulary range</p> <ul style="list-style-type: none"> • effectively apply and make use of a basic vocabulary repertoire of words/signs and phrases related to particular concrete situations. <p>Grammatical accuracy</p> <ul style="list-style-type: none"> • employ very simple principles of word/sign order in short statements. Shows only limited control of a few simple grammatical structures and sentence patterns in a learnt repertoire.
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<p>Module 2</p> <p>Professional communication in the foreign language</p>	<p>Vocabulary control</p> <ul style="list-style-type: none"> • control a narrow repertoire dealing with concrete, everyday needs. • pronounce a very limited repertoire of learnt words and phrases which can be understood with some effort by interlocutors used to dealing with speakers of the language group. • reproduce correctly a limited range of sounds as well as stress for simple, familiar words and phrases. • reproduce sounds in the target language if carefully guided. • articulate a limited number of sounds, so that speech is only intelligible if the interlocutor provides support (e.g. by repeating correctly and by eliciting repetition of new sounds). <ul style="list-style-type: none"> • use the rhythm and intonation of a limited repertoire of simple words and phrases intelligibly, in spite of a very strong influence on stress, rhythm and/or intonation from the other language(s) they speak; their interlocutor needs to be collaborative. <p>Students learn and practice how to Interact with colleagues or customers generally and more specifically for the level how to:</p> <p>Verbally</p> <ul style="list-style-type: none"> • establish basic social contact by using the simplest everyday polite forms of: greetings and farewells; introductions; saying please, thank you, sorry, etc. However, repair of communication is often required • adapt well-rehearsed, memorised, simple phrases to particular circumstances through limited lexical substitution and difficulties in articulating less familiar words is usual. • communicate basic information about personal details and needs of a concrete type in a simple way. • communicate very basic information about personal details in a simple way, while pausing is expected and usual to search for expressions • manage very short, isolated, rehearsed utterances using gesture and signalled requests for help when necessary.
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In Writing

- write short messages, e-mail messages using a template.
- write SMSs using standard abbreviations.
- can fill in forms with personal details (job, age, address, etc).
- can write simple isolated phrases and sentences, which I have memorized or copied.
- can write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things.

Description of language skills

Level of language skills	General language skills	Professional language skills	Examples Teaching and learning resources developing these occupational skills
Listening A1	<p>can recognise familiar terminology for the occupation and very basic phrases concerning immediate concrete surroundings when people speak/sign slowly and clearly.</p> <p>Can understand phrases and the highest frequency vocabulary related to areas of most immediate professional relevance (e.g. very basic information, shopping, local area, employment, prices, etc.).</p>	<ul style="list-style-type: none"> ➤ Can understand figures, prices and times given slowly and clearly in an announcement by other people in work environment or in a shop. ➤ Can recognise relevant terminology, words and numbers that they already know in simple, short recordings, provided these are delivered very slowly and clearly ➤ Can understand instructions addressed carefully and slowly to them and follow short, simple directions (adding, subtracting, multiplying, dividing) ➤ Can understand in outline very simple information being explained in a predictable situation like a guided tour or process of calculation, provided the delivery is very slow and clear and that there are long pauses from time to time. ➤ can understand phrases and expressions related to the most immediate priority in the work environment provided speech is clearly and slowly articulated ➤ Can understand simple technical information, such as operating instructions for everyday equipment ➤ Can extract the essential information from short, recorded passages dealing with predictable everyday work matters ➤ 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 1: The History of Agriculture, p. 4 - 5</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 2: Plant Products, p. 6 - 7</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 4: Soil, p. 10 - 11</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 5: Water, p. 12 - 13</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 6: Seeds, p. 14 - 15</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 7: Plant Growth, p. 16 - 17</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 8: Harvest, p. 18 - 19</p> <p>Book 1 Exercise 5, 6 and 7 from Unit 9: Storage, p. 20 - 21</p> <p>Book 2 Exercise 5, 6 and 7 from Unit 8 Soil Classification and Composition, p. 18 - 19</p> <p>Book 2 Exercise 5, 6 and 7 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercise 5, 6 and 7 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercise 5, 6 and 7 from Unit 11 Soil Conservation, p. 24 - 25</p>
Reading A1 towards A1+	<p>can understand familiar names, words/ signs and very simple sentences, for example on notices</p>	<ul style="list-style-type: none"> ➤ Can understand from a letter, card or e-mail the event to which they are being invited and the information given about day, time and location. ➤ Can recognise times and places in very simple notes and text messages from friends or colleagues (e.g. "Back at 4 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercise 2, 3 and 4 from Unit 1: The History of Agriculture, p. 4 - 5</p> <p>Book 1 Exercise 2, 3 and 4 from Unit 2: Plant Products, p. 6 - 7</p> <p>Book 1 Exercise 2, 3 and 4 from Unit 4: Soil, p. 10 - 11</p> <p>Book 1 Exercise 2, 3 and 4 from Unit 5: Water, p. 12 - 13</p>

	<p>and posters or in catalogues.</p> <p>can find specific, predictable information in simple everyday material, such as advertisements, prospectuses, menus and timetables, and I can understand</p>	<p>o'clock" or "In the meeting room"), provided there are no abbreviations.</p> <ul style="list-style-type: none"> ➤ Can understand short, simple messages sent via social media or e-mail (e.g. proposing what to do, when and where to meet). ➤ Can understand simple everyday signs such as "Parking", "Station", "Dining room", "No smoking", etc. ➤ Can understand very short, simple, instructions used in familiar everyday contexts (e.g. "No parking", "No food or drink"), especially if there are illustrations. ➤ Can find information about places, times and prices on posters, flyers and notices. ➤ Can find and understand simple, important information in advertisements, programmes for special events, leaflets and brochures (e.g. what is proposed, costs, the date and place of the event, departure times). ➤ Can understand store guides (information on which floors departments are on) and directions (e.g. where to find lifts). ➤ Can understand basic work information (e.g. times when work starts, breaks are scheduled, meals are served). 	<p>Book 1 Exercise 2, 3 and 4 from Unit 6: Seeds, p. 14 - 15 Book 1 Exercise 2, 3 and 4 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercise 2, 3 and 4 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercise 2, 3 and 4 from Unit 9: Storage, p. 20 - 21</p> <p>Book 2 Exercise 2, 3 and 4 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercise 2, 3 and 4 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercise 2, 3 and 4 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercise 2, 3 and 4 from Unit 11 Soil Conservation, p. 24 - 25</p>
<p>Spoken interaction A1 towards A1+</p>	<p>can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate and help me formulate what I am trying to express.</p>	<ul style="list-style-type: none"> ➤ Can understand and use basic, formulaic expressions such as "Yes", "No", "Excuse me", "Please", "Thank you", "No thank you", "Sorry". ➤ Can recognise simple greetings. ➤ Can greet people, state their name and take leave in a simple way. ➤ Can understand a number of familiar words/signs and recognise key information (e.g. numbers, prices, dates and days of the week), provided the delivery is very slow, with repetition if necessary. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercise 1, 7 and 8 from Unit 1: The History of Agriculture, p. 4 - 5 Book 1 Exercise 1, 7 and 8 from Unit 2: Plant Products, p. 6 - 7 Book 1 Exercise 1, 7 and 8 from Unit 4: Soil, p. 10 - 11 Book 1 Exercise 1, 7 and 8 from Unit 5: Water, p. 12 - 13 Book 1 Exercise 1, 7 and 8 from Unit 6: Seeds, p. 14 - 15 Book 1 Exercise 1, 7 and 8 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercise 1, 7 and 8 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercise 1, 7 and 8 from Unit 9: Storage, p. 20 - 21</p> <p>Book 2 Exercise 1, 7 and 8 from Unit 8 Soil Classification and</p>

		<ul style="list-style-type: none"> ➤ Can make an introduction and use basic greeting and leave-taking expressions. ➤ Can ask how people are and react to news. ➤ Can ask people for things and give people things. ➤ Can handle numbers, quantities, cost and time. 	<p>Composition, p. 18 - 19</p> <p>Book 2 Exercise 1, 7 and 8 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercise 1, 7 and 8 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercise 1, 7 and 8 from Unit 11 Soil Conservation, p. 24 - 25</p>
Oral production A1	can use simple phrases and sentences to describe where I live and people I know.	<ul style="list-style-type: none"> ➤ Can produce short phrases about themselves, giving basic personal information (e.g. name, address, family, nationality). ➤ Can produce simple, mainly isolated phrases about people and places. ➤ Can describe themselves (e.g. name, age, family), using simple words/signs and formulaic expressions, provided they can prepare in advance. ➤ Can express how they are feeling using simple adjectives like “happy” or “tired”, accompanied by body language. 	<ul style="list-style-type: none"> ▪ The language user produces an oral text which is received by an audience of one or more listeners. ▪ Examples: reading a written text aloud, speaking from notes or visual aids (diagram, pictures, charts, etc.) ▪ Acting out a rehearsed role <p>See above exercises for speaking interaction:</p> <ul style="list-style-type: none"> ▪ Distribute role cards – students read their role cards <p>Write a diagram of the role play words/sentences on the board</p>
Written production A1	can produce simple isolated phrases and sentences.	<ul style="list-style-type: none"> ➤ Can give basic personal information (e.g. name, address, nationality), perhaps with the use of a dictionary. ➤ Can use simple words/signs and phrases to describe certain everyday objects (e.g. the colour of a car, whether it is big or small). 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercise 9 from Unit 1: The History of Agriculture, p. 4 - 5</p> <p>Book 1 Exercise 9 from Unit 2: Plant Products, p. 6 - 7</p> <p>Book 1 Exercise 9 from Unit 4: Soil, p. 10 - 11</p> <p>Book 1 Exercise 9 from Unit 5: Water, p. 12 - 13</p> <p>Book 1 Exercise 9 from Unit 6: Seeds, p. 14 - 15</p> <p>Book 1 Exercise 9 from Unit 7: Plant Growth, p. 16 - 17</p> <p>Book 1 Exercise 9 from Unit 8: Harvest, p. 18 - 19</p> <p>Book 1 Exercise 9 from Unit 9: Storage, p. 20 - 21</p> <p>Book 2 Exercise 9 from Unit 8 Soil Classification and Composition, p. 18 - 19</p> <p>Book 2 Exercise 9 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercise 9 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercise 9 from Unit 11 Soil Conservation, p. 24 - 25</p>

Teaching/learning contents (guide lines) – Agricultural Technologies and Landscape, Grade 9

2 teaching hours per week

Topics from the Curriculum Package	Resources	Comments Teaching and learning focus and methods Linguistic aspects/teaching and learning methods
INTRODUCTION	From Agriculture, Express Publishing, 2022 Book 1 Unit 1: The History of Agriculture, p. 4 – 5	
VEGETABLE GROWING TECHNOLOGY	From Agriculture, Express Publishing, 2022 Book 1 Unit 4: Soil, p. 10 - 11 Book 1 Unit 5: Water, p. 12 - 13 Book 1 Unit 6: Seeds, p. 14 - 15 Book 1 Unit 8: Harvest, p. 18 - 19 Book 1 Unit 9: Storage, p. 20 - 21	
PLANT GROWING TECHNOLOGY	From Agriculture, Express Publishing, 2022 Book 1 Unit 2: Plant Products, p. 6 - 7 Book 1 Unit 7: Plant Growth, p. 16 - 17	
ORGANIC AGRICULTURE	From Agriculture, Express Publishing, 2022 Book 2 Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Unit 11 Soil Conservation, p. 24 - 25	

Assessment:

- Self-assessment: According to the scale in the self-assessment grid of the Common European Framework (CEF)
- Tutor assessment: Tests, quizzes, case studies, simulations, role plays
- Final assessment: Test, case study

Recommended learning time:

- 60 hours face to face learning
- 60 hours individual learning

Vocabulary focus for reading and listening comprehension

Getting Started provides warm-up questions about the chapter topic. The questions' main purpose is to activate students' prior knowledge about the topic before they read the passage or listen to the audio file. The 'Get Ready!' exercise includes suggestions of questions that can serve this function. The teachers can also ask additional questions related to the school and occupational environment to activate students' prior knowledge.

Target words (terms)

Each unit introducing target words and asks students to assess their knowledge of each word both before and after they work through the chapter. Vocabulary learning is incremental (gradual, step-by step). Revision is required at least 3-4 times during the school year in various contexts. Even if students do not achieve productive mastery of every word by the time the chapter is finished, the process can show partial improvement (for example, from *no knowledge* to *receptive knowledge*). By avoiding a *no knowledge / full mastery dichotomy*, the process can show smaller degrees of learning. We would expect every student to learn enough about the target words to show some improvement, which should maintain and enhance their motivation.

Reading presents a reading passage that has been graded in various levels of difficulty. The embedding of the target vocabulary in these texts ensures that it is not introduced in isolation, but in meaningful contexts. There is also a great deal of target vocabulary in these texts that is not specifically focused on in the chapter, and that provides natural recycling in new contexts of words students have already studied.

In addition, the passages are suitable for a wide range of reading-based tasks that can be constructed by the teacher to ensure mastering of target words. This integration of reading and vocabulary allows the study of lexis in programs that

have a reading focus, and promotes the beneficial concurrent improvement of reading and vocabulary skills. For example, at the end of each passage, there are exercises (Reading Comprehension) that focus on comprehension ranging from literal details, recognition of true/false, matching of terms with definitions and filling gaps with targeted words.

Focusing on Vocabulary means:

- Word Meaning features a variety of exercises designed to help students learn the meaning of each of the twenty-four target words.
- Word Families provides practice in recognizing and using the various derivative word forms that make up a word's family (or words of the same category).
- Collocation exercises are designed to improve students' intuitions about the collocations a word takes (mouse, LED mouse, laser mouse, ball mouse).

Vocabulary Learning Strategies

To learn target words well, students will need to continue meeting and learning these word families outside of this book. This means you will need to use vocabulary strategies to maximize your learning. Below, we describe a number of these vocabulary learning strategies.

USING A DICTIONARY

One of the most important reasons to use a dictionary is to discover a word's meaning. However, many words have more than one meaning, and you must be careful to choose the one that matches the context.

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|--------------|--------------------------|
| 1 __ Mac | 5 __ hardware |
| 2 __ Windows | 6 __ software compatible |
| 3 __ macOS | 7 __ processing speed |
| 4 __ Linux | 8 __ vulnerable |

- A a computing device
- B being able to run different programs
- C an operating system developed by Apple
- D an operating system that uses open source software
- E a measure of how fast a computer operates
- F an operating system developed by Microsoft
- G a computer developed by Apple
- H open to attack

Teachers can design similar tasks using a dictionary or the glossary to the teaching and learning resources as part of this package.

GUESSING FROM CONTEXT

Guessing the meaning of a new word from context is a very good way to supplement the learning of vocabulary from a book like this. You can get clues from the surrounding words and the construction of the sentences.

Teachers can use short texts for guessing from context. The teachers can ask questions such as:

What is the meaning of?

What are the clues that helped you discover this meaning?

How could this help you understand the meaning of?

EXTENSIVE READING

Although students gain a lot of benefits from studying words, they also need to see or hear them in many contexts to understand how to use them appropriately. One of the best ways to gain this wide exposure is to read extensively. The repeated exposure to words in reading will help students remember their spellings and meanings, and will also show the other words they commonly occur with. In other words, by reading widely, you will eventually begin to get a feel for which words collocate with the words you are learning.

USING INTERNET TOOLS

Nowadays, there are many Internet sites that can help your learning. Teachers can use internet sources for allowing for extensive reading and seeing target words in many contexts to understand how to use them appropriately.

Guide to Vocabulary Focus Approach – Agricultural Technologies and Landscape, Grade 9

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Vocabulary/ Target words and phrases	Comments / additional target words and phrases
Book 1					
	1	The history of agriculture	Reading a textbook passage (true/false statements)	agriculture, crop, cultivate, domesticate, farm, harvest, irrigation, plant, produce, water supply	
	2	Plant products	Reading an advert (reading for specific information)	cereal, farmer's market, fruit, grain, harvest, industrial crop, legume, melon, tuber, vegetable	
	4	Soil	Reading a newspaper advice column (true/false statements)	aeration, clay, dense, humus, loam, parent material, sand, silt, soil, soil structure, soil texture	
	5	Water	Reading a newspaper article (multiple choice questions)	arid, ditch, drought, drought-resistant, groundwater, irrigate, rain-fed, rainfall, water cycle	
	6	Seeds	Reading a page from a catalogue (true/false statements)	bulk, days to maturity, dormancy, germinate, hard coat, hybrid, seed, seed vigor, seedling, sow, sowing method	

	7	Plant growth	Reading a magazine article (true/false statements)	branch, bud, flower, growth chart, leaf, photosynthesis, Quinoa, roots, seedhead, stalk	
	8	Harvest	Reading a harvest summary report (true/false statements)	branch, bud, flower, growth chart, leaf, photosynthesis, Quinoa, roots, seedhead, stalk	
	9	Storage	Reading an e-mail (reading for specific information)	aeration, bunker silo, cool, dry, leveling, moisture, mold, silage bag, storage, tower silo	
Book 2					
	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	classification, clay, coarse-grain, composition, finegrain, grain, highly-organic, peat, sand, silt, texture, unified soil classification system	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	acidity, alkaline, dryland salinity, lime, pH value, salinity, salinity, secondary salinity, sodicity, sodium, sulphur, toxic	
	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	ammonia, denitrification, eutrophication, fixation, mineralization, nitrates, nitrification, nitrites, nitrogen cycle, nitrous oxide, nutrient-poor	
	11	Soil conservation	Reading a magazine article (multiple choice questions)	contour farming, cover crops, crop rotation, erosion, grassway, green manure, keyline design, land degradation, nutrition depletion, perimeter runoff control, soil conservation, windbreaks	

Resource for distribution of the teaching/learning content – Agricultural Technologies and Landscape, Grade 9
(using the description of the teaching/learning content you can indicate when during the school year you plan to use the relevant units and exercises for developing of language skills; under comments you can indicate whether revision is needed and when)

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Listening	Speaking	Writing	Comments
Book 1							
	1	The history of agriculture	Reading a textbook passage (true/false statements)	Listening to a conversation between student and a teacher in a history class (multiple choice questions); Completing a conversation	Acting out a dialogue between a student and a teacher	Filling out a student's notes	
	2	Plant products	Reading an advert (reading for specific information)	Listening to a conversation between a customer and a farmer at a farmer's market (listening for specific information);	Acting out a dialogue between a customer and a farmer at a farmer's market	Filling out a customer's receipt	

				Completing a conversation			
	4	Soil	Reading a newspaper advice column (true/false statements)	Listening to a conversation between a customer and a clerk (multiple choice questions); Completing a conversation	Acting out a dialogue between a customer and a clerk in a plant supply store	Filling out a product description form	
	5	Water	Reading a newspaper article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out a farm report	
	6	Seeds	Reading a page from a catalogue (true/false statements)	Listening to a conversation between a customer and a farmer (true/false statements); Completing a conversation	Acting out a dialogue between a customer and a farmer	Filling out a receipt	

	7	Plant growth	Reading a magazine article (true/false statements)	Listening to a conversation between two farmers discussing plant growth (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out a farmer's notes on harvest	
	8	Harvest	Reading a harvest summary report (true/false statements)	Listening to a conversation between two farmers discussing a harvest (multiple choice questions); Completing a conversation	Acting out a dialogue between two farmers	Filling out a crop report	
	9	Storage	Reading an e-mail (reading for specific information)	Listening to a conversation between a farm owner and storage manager (true/false statements); Completing a conversation	Acting out a dialogue between a farm owner and storage manager	Filling out a storage manager's message to farm workers	
Book 2							

	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	Listening to a conversation between a scientist and a farmer (multiple choice questions); Completing a conversation	Acting out a dialogue between a scientist and a farmer	Filling out a farmer's notes	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out g a farmer's plan to lower soil acidity	
	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	Listening to a conversation between two farmers (multiple choice questions); Completing a conversation	Acting out a dialogue between two farmers on nitrogen and fertilizers	Filling out a farmer's schedule	
	11	Soil conservation	Reading a magazine article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out g a farmer's plan	

GRADE 10

Description of module content and learning objectives

<p>Module objectives</p> <p>10th grade</p> <p>Module 1</p> <p>Focus on vocabulary</p> <p>Use of terminology in the foreign language</p>	<p>The module is skill-oriented and emphasizes on developing and consolidating practical skills in a variety of relevant work-related contexts. It focuses both on fluency in language use as well as on accuracy.</p> <p>Students learn and practice how to:</p> <p>General linguistic range</p> <ul style="list-style-type: none"> • Use some simple structures correctly but still systematically makes basic mistakes • Pronounce words and phrases generally clear enough to be understood but still has a strong influence on stress, rhythm and intonation from the other language spoken • Clearly pronounce familiar words although repetition is needed from time to time • produce sounds in the target language if carefully guided. It may affect intelligibility, requiring collaboration from interlocutors. • Use effectively and close to independently a repertoire of basic language which enables them to deal with everyday situations with predictable • Convey very basic content, though they will generally have to compromise the message and search for words/signs. <p>Vocabulary range</p> <ul style="list-style-type: none"> • effectively apply and make use of a basic vocabulary repertoire of words/signs and phrases related to particular concrete situations. • Use sufficient vocabulary for the expression of basic communicative needs. • Use sufficient vocabulary for coping with simple survival needs.
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<p>Module 2</p> <p>Professional communication in the foreign language</p>	<p>Grammatical accuracy</p> <ul style="list-style-type: none"> • employ very simple principles of word/sign order in short statements. Shows only limited control of a few simple grammatical structures and sentence patterns in a learnt repertoire. • Use some simple structures correctly, but still systematically makes basic mistakes; nevertheless, it is usually clear what they are trying to say. <p>Vocabulary control</p> <ul style="list-style-type: none"> • control a narrow repertoire dealing with concrete, everyday needs and in professional context • Clearly pronounce enough to be understood, but conversational partners will need to ask for repetition from time to time. • Can deal with situations affected by a strong influence by the other language(s) they speak on stress, rhythm and intonation, requiring collaboration from interlocutors. • Demonstrate an intelligible pronunciation when communicating in simple everyday situations, provided the interlocutor makes an effort to understand specific sounds. • Communicate with the interlocutor when systematic mispronunciation of phonemes might hinder intelligibility, provided the interlocutor makes an effort to recognise and adjust to the influence of the speaker’s language background on pronunciation. • use the rhythm and intonation of everyday words and phrases intelligibly, in spite of a strong influence on stress, intonation and/or rhythm from the other language(s) they speak. <p>Students learn and practice how to Interact with colleagues or customers generally and more specifically for the level how to:</p> <p>Verbally</p> <ul style="list-style-type: none"> • Can make and respond to invitations, suggestions, apologies, etc. using learnt phrases and memorized exchanges • Can handle very short social exchanges, using everyday polite forms of greeting and address • Can expand learnt phrases through simple recombination of their elements • Can ask for attention • adapt well-rehearsed, memorised, simple phrases to particular circumstances through limited lexical substitution and difficulties in articulating less familiar words is usual.
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- Can expand learnt phrases through simple recombinations of their elements.
- Can use simple techniques to start, maintain or close a short conversation.
- Can give an example of something in a very simple text using “like” or “for example”.
- Can communicate what they want to say in a simple and direct exchange of limited information on familiar
- communicate basic information about basic professional details and needs of a concrete type in a simple way.
- communicate very basic information about professional topics in a simple way, while pausing is expected and usual to search for expressions
- manage very short, isolated, rehearsed utterances using gesture and signalled requests for help when necessary.

In Writing


- write short messages, e-mail messages, memos following a sample
- write SMSs using standard abbreviations and basic repertoire of written words and phrases
- fill in forms with details related to standards work situations
- write simple isolated phrases and sentences, which I have memorized or copied.
- write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things.
- take notes related to matters of immediate interest in work
- write simple isolated phrases and sentences, which he/she have memorized or copied.
- write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things.
- give information about matters of personal and professional relevance (e.g. likes and dislikes, family, pets) using simple words/signs and basic expressions.
- produce simple isolated phrases and sentences.
- describe in very simple language what a familiar object looks like.


Description of language skills

Level of language skills	General language skills	Professional language skills	Examples Teaching and learning resources developing these occupational skills
<p>Understanding Listening A1+</p>	<p>Can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). Can catch the main point in short, clear, simple messages and announcements.</p>	<ul style="list-style-type: none"> ➤ can understands phrases and expressions related to the most immediate priority in the work environment provided speech is clearly and slowly articulated ➤ can identify the topic of discussion ➤ can follow speech which is very slow and carefully articulated ➤ can understand instructions addressed carefully and slowly ➤ Can catch the main point in short, clear, simple message and announcements ➤ Can understands simple technical information, such as operating instructions for everyday equipment ➤ Can extracts the essential information from short, recorded passages dealing with predictable everyday work matters ➤ Can understand words/signs and short sentences in a simple conversation (e.g. between a customer and a salesperson in a shop), provided people communicate very slowly and very clearly. ➤ Can follow a very simple, well-structured presentation or demonstration, provided it is illustrated with slides, concrete examples or diagrams, it is delivered slowly and clearly with repetition, and the topic is familiar. ➤ Can understand the outline of simple information given in a predictable situation, such as on a guided tour of work environment (e.g. "This is where the master works"). ➤ Can understand simple directions on how to get from X to Y, by foot or public transport. ➤ Can understand basic instructions on times, dates and numbers, etc., and on routine tasks and assignments to be carried out. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercises 5, 6 and 7 from Unit 2: Plant Products, p. 6 - 7 Book 1 Exercises 5, 6 and 7 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercises 5, 6 and 7 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercises 5, 6 and 7 from Unit 9: Storage, p. 20 - 21 Book 1 Exercises 5, 6 and 7 from Unit 14: Cultivation and Planting Equipment, p. 30 - 31 Book 1 Exercises 5, 6 and 7 from Unit 15: Harvest Equipment, p. 32 - 33</p> <p>Book 2 Exercises 5, 6 and 7 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercises 5, 6 and 7 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercises 5, 6 and 7 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercises 5, 6 and 7 from Unit 11 Soil Conservation, p. 24 - 25 Book 2 Exercises 5, 6 and 7 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Exercises 5, 6 and 7 from Unit 13 Climate and Weather, p. 28 - 29</p>

		<ul style="list-style-type: none"> ➤ Can understand straightforward announcements (e.g. of a cinema programme or sports event, that a train has been delayed), provided the delivery is slow and clear. ➤ Can pick out concrete information (e.g. places and times) from short recordings on familiar everyday topics, provided they are delivered very slowly and clearly. 	
Reading A1 towards A1+	Can read very short, simple texts. Can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and can understand short simple personal letters.	<ul style="list-style-type: none"> ➤ can read and extract the necessary information related to working environment and the occupation. ➤ can extract the important information and main points from short specialised texts, manuals, orders, instructions, etc. ➤ can get a general understanding of an occupation-specific text. ➤ Can understand very simple formal e-mails and letters (e.g. confirmation of a booking or online purchase). ➤ Can understand everyday signs and notices, etc. in public places, such as streets, restaurants, railway stations; in workplaces, such as directions, instructions, hazard warnings. ➤ Can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus, reference lists and timetables. ➤ Can locate specific information in lists and isolate the information required (e.g. use catalogues to find a service or tradesman). ➤ Can understand texts describing people, places, everyday life and work environment, etc., provided they use simple language. ➤ Can understand information given in illustrated brochures and maps (e.g. the principal attractions of a city). ➤ Can understand a short factual description or report within their own field, provided simple language is used and that it does not contain unpredictable detail. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercises 2, 3 and 4 from Unit 2: Plant Products, p. 6 - 7 Book 1 Exercises 2, 3 and 4 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercises 2, 3 and 4 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercises 2, 3 and 4 from Unit 9: Storage, p. 20 - 21 Book 1 Exercises 2, 3 and 4 from Unit 14: Cultivation and Planting Equipment, p. 30 - 31 Book 1 Exercises 2, 3 and 4 from Unit 15: Harvest Equipment, p. 32 - 33</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercises 2, 3 and 4 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercises 2, 3 and 4 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercises 2, 3 and 4 from Unit 11 Soil Conservation, p. 24 - 25 Book 2 Exercises 2, 3 and 4 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Exercises 2, 3 and 4 from Unit 13 Climate and Weather, p. 28 - 29</p>

		<ul style="list-style-type: none"> ➤ Can understand simple, brief instructions, provided they are illustrated and not presented in continuous text. 	
<p>Spoken interaction A1+</p>	<p>Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. Can handle very short social exchanges, even though cannot usually understand enough to keep the conversation going myself.</p>	<ul style="list-style-type: none"> ➤ can exchange information on a variety of simple and routine matters directly related to the immediate work environment. ➤ can ask questions, confirm information and avoid misunderstanding ➤ can handle a simple conversation in order to obtain goods and services ➤ can handle simple social exchanges with customers/colleagues, e.g. introductions, invitations, apologies. ➤ can ask and answer simple questions about someone's preferences, requests, purchases and orders. ➤ Can interact in a simple way but communication is totally dependent on repetition at a slower rate, rephrasing and repair. ➤ Can ask and answer simple questions, initiate and respond to simple statements in areas of immediate need or on very familiar topics. ➤ Can understand questions and instructions addressed carefully and slowly to them and follow short, simple directions. ➤ Can understand what is said clearly, slowly and directly to them in simple everyday conversation; can be made to understand, if the interlocutor can take the trouble. ➤ Can understand everyday expressions aimed at the satisfaction of simple needs of a concrete type, delivered directly to them in clear, slow and repeated language by a sympathetic interlocutor. ➤ Can take part in a simple conversation of a basic factual nature on a predictable topic (e.g. their home country, job, school). ➤ Can ask for and provide everyday goods and services. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercises 1, 7 and 8 from Unit 2: Plant Products, p. 6 - 7 Book 1 Exercises 1, 7 and 8 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercises 1, 7 and 8 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercises 1, 7 and 8 from Unit 9: Storage, p. 20 - 21 Book 1 Exercises 1, 7 and 8 from Unit 14: Cultivation and Planting Equipment, p. 30 - 31 Book 1 Exercises 1, 7 and 8 from Unit 15: Harvest Equipment, p. 32 - 33</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercises 1, 7 and 8 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercises 1, 7 and 8 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercises 1, 7 and 8 from Unit 11 Soil Conservation, p. 24 - 25 Book 2 Exercises 1, 7 and 8 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Exercises 1, 7 and 8 from Unit 13 Climate and Weather, p. 28 - 29</p>

		<ul style="list-style-type: none"> ➤ Can give and receive information about quantities, numbers, prices, etc. ➤ Can make simple purchases by stating what is wanted and asking the price. ➤ Can understand questions and instructions addressed carefully and slowly to them and follow short, simple directions. ➤ Can ask and answer simple questions, initiate and respond to simple statements in areas of immediate need or on very familiar topics. ➤ can ask and answer questions about my own area of work using simple language. ➤ can ask for and give directions referring to a map or plan. ➤ can discuss in a very simple way events, activities and plans. ➤ can take simple telephone calls or put callers through. ➤ can make arrangements concerning meeting points/date/time/arrival and departure, when simple language is used. 	
<p>Oral production A1+</p>	<p>can use simple phrases and sentences to describe where I live and people I know.</p>  <p>Can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational</p>	<ul style="list-style-type: none"> ➤ can describe myself and my environment, using simple language. ➤ can give a simple account of my work place, my job or company. ➤ can produce simple mainly isolated phrases about people and places related to my occupation. ➤ can read a very short, rehearsed statement – e.g. to introduce a person, propose a product. ➤ Can give a simple description or presentation of people, living or working conditions, daily routines. likes/ dislikes, etc. as a short series of simple phrases and sentences linked into a list. ➤ Can describe themselves, what they do and where they live. ➤ Can describe simple aspects of their everyday life in a series of simple sentences, using simple words/signs and basic phrases, provided they can prepare in advance. 	<ul style="list-style-type: none"> ▪ The language user produces an oral text which is received by an audience of one or more listeners. ▪ Examples: reading a written text aloud, speaking from notes or visual aids (diagram, pictures, charts, etc.) ▪ Acting out a rehearsed role <p>See above exercises for speaking interaction:</p> <ul style="list-style-type: none"> ▪ Distribute role cards – students read their role cards <p>Write a diagram of the role play words/sentences on the board</p>

	background and my present or most recent job.	<ul style="list-style-type: none"> ➤ Can name an object and indicate its shape and colour while showing it to others using basic words/signs, phrases and formulaic expressions, provided they can prepare in advance. ➤ Can use a very short prepared text to deliver a rehearsed statement (e.g. to formally introduce someone, to propose a toast). 	
<p>Written production A1</p>	<p>Can produce simple isolated phrases and sentences.</p> <p style="text-align: center;"></p> <p>Can produce a series of simple phrases and sentences linked with simple connectors like “and”, “but” and “because”.</p>	<ul style="list-style-type: none"> ➤ can write short letters, messages, e-mail messages, memos following a sample ➤ can write SMSs using standard abbreviations. ➤ can take notes related to matters of immediate interest in work ➤ can fill in forms with personal details (job, age, address, etc. ➤ can write simple isolated phrases and sentences, which I have memorized or copied. ➤ can write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things. ➤ Can give information about matters of personal relevance (e.g. likes and dislikes, family, pets) using simple words/signs and basic expressions. ➤ Can produce simple isolated phrases and sentences. ➤ Can describe in very simple language what a room (or a familiar object) looks like. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 1 Exercises 9 from Unit 2: Plant Products, p. 6 - 7 Book 1 Exercises 9 from Unit 7: Plant Growth, p. 16 - 17 Book 1 Exercises 9 from Unit 8: Harvest, p. 18 - 19 Book 1 Exercises 9 from Unit 9: Storage, p. 20 - 21 Book 1 Exercises 9 from Unit 14: Cultivation and Planting Equipment, p. 30 - 31 Book 1 Exercises 9 from Unit 15: Harvest Equipment, p. 32 - 33</p> <p>Book 2 Exercises 9 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercises 9 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercises 9 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercises 9 from Unit 11 Soil Conservation, p. 24 - 25 Book 2 Exercises 9 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Exercises 9 from Unit 13 Climate and Weather, p. 28 - 29</p>

Teaching/learning contents (guide lines) – Agricultural Technologies and Landscape, Grade 10

2 teaching hours per week

Topics from the Curriculum Package	Resources	Comments Teaching and learning focus and methods Linguistic aspects/teaching and learning methods
CEREAL, LEGUME AND LEGUME GROWING TECHNOLOGY	From Agriculture, Express Publishing, 2022 Book 1 Unit 8: Harvest, p. 18 - 19 (revision) Book 1 Unit 9: Storage, p. 20 – 21 (revision) Book 1 Unit 15: Harvest Equipment, p. 32 - 33	
VEGETABLE GROWING TECHNOLOGY	From Agriculture, Express Publishing, 2022 Book 1 Unit 14: Cultivation and Planting Equipment, p. 30 - 31	
PLANT GROWING AND PLANT PROTECTION TECHNOLOGIES	From Agriculture, Express Publishing, 2022 Book 1 Unit 2: Plant Products, p. 6 – 7 (revision) Book 1 Unit 7: Plant Growth, p. 16 – 17 (revision) Book 2 Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Unit 13 Climate and Weather, p. 28 - 29	
ORGANIC AGRICULTURE	From Agriculture, Express Publishing, 2022 Book 2 Unit 8 Soil Classification and Composition, p. 18 – 19 (revision) Book 2 Unit 9 Salts and Acidity, p. 20 – 21 (revision) Book 2 Unit 10 The Nitrogen Cycle, p. 22 – 23 (revision) Book 2 Unit 11 Soil Conservation, p. 24 – 25 (revision)	

Assessment:

- Self-assessment: According to the scale in the self-assessment grid of the Common European Framework (CEF)
- Tutor assessment: Tests, quizzes, case studies, simulations, role plays
- Final assessment: Test, case study

Recommended learning time:

- 60 hours face to face learning
- 60 hours individual learning

Vocabulary focus for reading and listening comprehension

Getting Started provides warm-up questions about the chapter topic. The questions' main purpose is to activate students' prior knowledge about the topic before they read the passage or listen to the audio file. The 'Get Ready!' exercise includes suggestions of questions that can serve this function. The teachers can also ask additional questions related to the school and occupational environment to activate students' prior knowledge.

Target words (terms)

Each unit introducing target words and asks students to assess their knowledge of each word both before and after they work through the chapter. Vocabulary learning is incremental (gradual, step-by step). Revision is required at least 3-4 times during the school year in various contexts. Even if students do not achieve productive mastery of every word by the time the chapter is finished, the process can show partial improvement (for example, from *no knowledge* to *receptive knowledge*). By avoiding a *no knowledge / full mastery dichotomy*, the process can show smaller degrees of learning. We would expect every student to learn enough about the target words to show some improvement, which should maintain and enhance their motivation.

Reading presents a reading passage that has been graded in various levels of difficulty. The embedding of the target vocabulary in these texts ensures that it is not introduced in isolation, but in meaningful contexts. There is also a great deal of target vocabulary in these texts that is not specifically focused on in the chapter, and that provides natural recycling in new contexts of words students have already studied.

In addition, the passages are suitable for a wide range of reading-based tasks that can be constructed by the teacher to ensure mastering of target words. This integration of reading and vocabulary allows the study of lexis in programs that have a reading focus, and promotes the beneficial concurrent improvement of reading and vocabulary skills. For example, at the end of each passage, there are exercises (Reading Comprehension) that focus on comprehension ranging from literal details, recognition of true/false, matching of terms with definitions and filling gaps with targeted words.

Focusing on Vocabulary means:

- Word Meaning features a variety of exercises designed to help students learn the meaning of each of the twenty-four target words.
- Word Families provides practice in recognizing and using the various derivative word forms that make up a word's family (or words of the same category).
- Collocation exercises are designed to improve students' intuitions about the collocations a word takes (mouse, LED mouse, laser mouse, ball mouse).

Vocabulary Learning Strategies

To learn target words well, students will need to continue meeting and learning these word families outside of this book. This means you will need to use vocabulary strategies to maximize your learning. Below, we describe a number of these vocabulary learning strategies.

USING A DICTIONARY

One of the most important reasons to use a dictionary is to discover a word's meaning. However, many words have more than one meaning, and you must be careful to choose the one that matches the context.

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|--------------|--------------------------|
| 1 __ Mac | 5 __ hardware |
| 2 __ Windows | 6 __ software compatible |
| 3 __ macOS | 7 __ processing speed |
| 4 __ Linux | 8 __ vulnerable |

- A a computing device
- B being able to run different programs
- C an operating system developed by Apple
- D an operating system that uses open source software
- E a measure of how fast a computer operates
- F an operating system developed by Microsoft
- G a computer developed by Apple
- H open to attack

Teachers can design similar tasks using a dictionary or the glossary to the teaching and learning resources as part of this package.

GUESSING FROM CONTEXT

Guessing the meaning of a new word from context is a very good way to supplement the learning of vocabulary from a book like this. You can get clues from the surrounding words and the construction of the sentences.

Teachers can use short texts for guessing from context. The teachers can ask questions such as:

What is the meaning of?

What are the clues that helped you discover this meaning?

How could this help you understand the meaning of?

EXTENSIVE READING

Although students gain a lot of benefits from studying words, they also need to see or hear them in many contexts to understand how to use them appropriately. One of the best ways to gain this wide exposure is to read extensively. The repeated exposure to words in reading will help students remember their spellings and meanings, and will also show the other words they commonly occur with. In other words, by reading widely, you will eventually begin to get a feel for which words collocate with the words you are learning.

USING INTERNET TOOLS

Nowadays, there are many Internet sites that can help your learning. Teachers can use internet sources for allowing for extensive reading and seeing target words in many contexts to understand how to use them appropriately.

Guide to Vocabulary Focus Approach – Agricultural Technologies and Landscape, Grade 10

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Vocabulary/ Target words and phrases	Comments / additional target words and phrases
Book 1					
	2	Plant products	Reading an advert (reading for specific information)	cereal, farmer's market, fruit, grain, harvest, industrial crop, legume, melon, tuber, vegetable	
	7	Plant growth	Reading a magazine article (true/false statements)	branch, bud, flower, growth chart, leaf, photosynthesis, Quinoa, roots, seedhead, stalk	
	8	Harvest	Reading a harvest summary report (true/false statements)	bale, bushel, chaff, harvest, mature, package type, reap, threshing, ton, yield	
	9	Storage	Reading an e-mail (reading for specific information)	aeration, bunker silo, cool, dry, leveling, moisture, mold, silage bag, storage, tower silo	
	14	Cultivation and planting equipment	Reading newspaper advertisements (true/false statements)	broadcast seeder, chisel plow, cultipacker, cultivator, harrow, planter, rototiller, seed drill, stone picker, tractor, transplanter	

	15	Harvest equipment	Reading a website (true/false statements)	bale wrapper, baler, chaser bin, combine harvester, conveyor belt, forage harvester, gleaner, grain auger, gravity wagon, hay conditioner	
Book 2					
	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	classification, clay, coarse-grain, composition, finegrain, grain, highly-organic, peat, sand, silt, texture, unified soil classification system	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	acidity, alkaline, dryland salinity, lime, pH value, salinity, salinity, secondary salinity, sodicity, sodium, sulphur, toxic	
	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	ammonia, denitrification, eutrophication, fixation, mineralization, nitrates, nitrification, nitrites, nitrogen cycle, nitrous oxide, nutrient-poor	
	11	Soil conservation	Reading a magazine article (multiple choice questions)	contour farming, cover crops, crop rotation, erosion, grassway, green manure, keyline design, land degradation, nutrition depletion, perimeter runoff control, soil conservation, windbreaks	
	12	Preparing, seeding and planting	Reading a section from a farmer's guide (true/false statements)	amendment, broadcast seeding, emergence, fertilizer, grain, herbicide, no-till method, seeds per pound, soil temperature, tilling method, top soil	
	13	Climate and weather	Reading an article from a seed catalogue (true/false statements)	climate, hardiness zone, humidity, last frost, long-range forecast, mulch, precipitation, soil moisture, temperature	

Resource for distribution of the teaching/learning content – Agricultural Technologies and Landscape, Grade 10

(using the description of the teaching/learning content you can indicate when during the school year you plan to use the relevant units and exercises for developing of language skills; under comments you can indicate whether revision is needed and when)

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Listening	Speaking	Writing	Comments
Book 1							
	2	Plant products	Reading an advert (reading for specific information)	Listening to a conversation between a customer and a farmer at a farmer's market (listening for specific information); Completing a conversation	Acting out a dialogue between a customer and a farmer at a farmer's market	Filling out a customer's receipt	
	7	Plant growth	Reading a magazine article (true/false statements)	Listening to a conversation between two farmers discussing plant growth (true/false statements);	Acting out a dialogue between two farmers	Filling out a farmer's notes on harvest	

				Completing a conversation			
	8	Harvest	Reading a harvest summary report (true/false statements)	Listening to a conversation between two farmers discussing a harvest (multiple choice questions); Completing a conversation	Acting out a dialogue between two farmers	Filling out a crop report	
	9	Storage	Reading an e-mail (reading for specific information)	Listening to a conversation between a farm owner and storage manager (true/false statements); Completing a conversation	Acting out a dialogue between a farm owner and storage manager	Filling out a storage manager's message to farm workers	
	14	Cultivation and planting equipment	Reading newspaper advertisements (true/false statements)	Listening to a conversation between a seller and a caller responding to a used equipment add (multiple choice questions); Completing a conversation	Acting out a dialogue between a seller and caller	Filling out an advertisement	

	15	Harvest equipment	Reading a website (true/false statements)	Listening to a conversation between a farmer and an assistant (multiple choice questions); Completing a conversation	Acting out a dialogue between a customer and an assistant	Filling out a harvesting company's report	
Book 2							
	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	Listening to a conversation between a scientist and a farmer (multiple choice questions); Completing a conversation	Acting out a dialogue between a scientist and a farmer	Filling out a farmer's notes	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out a farmer's plan to lower soil acidity	
	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	Listening to a conversation between two farmers (multiple choice questions);	Acting out a dialogue between two farmers on nitrogen and fertilizers	Filling out a farmer's schedule	

				Completing a conversation			
	11	Soil conservation	Reading a magazine article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out g a farmer's plan	
	12	Preparing, seeding and planting	Reading a section from a farmer's guide (true/false statements)	Listening to a conversation between two farmers (listening for specific information); Completing a conversation	Acting out a dialogue between two farmers	Writing an e-mail to a farm owner	
	13	Climate and weather	Reading an article from a seed catalogue (true/false statements)	Listening to a conversation between a seed store employee and a customer (true/false statements); Completing a conversation	Acting out a dialogue between a seed store employee and a customer	Filling out a customer feedback form	

GRADE 11

Description of module content and learning objectives

<p>Module objectives</p> <p>11th grade</p> <p>Module 1</p> <p>Focus on vocabulary</p> <p>Use of terminology in the foreign language</p>	<p>The module is skill-oriented and emphasizes on developing and consolidating practical skills in a variety of relevant work-related contexts. It focuses both on fluency in language use as well as on accuracy.</p> <p>Students learn and practice how to:</p> <p>General linguistic range</p> <ul style="list-style-type: none"> • Use simple and more complex structures correctly but still systematically makes some mistakes • Pronounce words and phrases generally clear enough to be understood but still has a strong influence on stress, rhythm and intonation from the other language spoken • Clearly pronounce familiar words although repetition is needed from time to time • produce sounds in the target language if carefully guided. It may affect intelligibility, requiring collaboration from interlocutors. • Use effectively and close to independently a repertoire of basic language which enables them to deal with everyday situations with predictable • Convey very basic content, though they will generally have to compromise the message and search for words/signs. • get by using enough language, with sufficient vocabulary to express themselves with some hesitation and circumlocutions on topics such as family, hobbies and interests, work, travel and current events, but lexical limitations cause repetition and even difficulty with formulation at times.
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	<p>Vocabulary range</p> <ul style="list-style-type: none"> • use sufficient vocabulary to conduct routine everyday transactions involving familiar situations and topics. • Express using sufficient vocabulary basic communicative needs. • Cope with survival and routine needs using sufficient vocabulary for coping. • Communicate using a good range of vocabulary related to familiar topics and everyday situations. <p>Grammatical accuracy</p> <ul style="list-style-type: none"> • employ a range of principles of word/sign order in short statements. Shows only limited control of a few simple grammatical structures and sentence patterns in a learnt repertoire. • Use a range of structures correctly, but still systematically makes mistakes; nevertheless, it is usually clear what they are trying to say. • Communicate using reasonably accurately a repertoire of frequently used “routines” and patterns associated with more predictable situations. <p>Vocabulary control</p> <ul style="list-style-type: none"> • control a narrow repertoire dealing with concrete, everyday needs and in professional context • Clearly pronounce enough to be understood, but conversational partners will need to ask for repetition from time to time. • Can deal with situations affected by a strong influence by the other language(s) they speak on stress, rhythm and intonation, requiring collaboration from interlocutors. • Demonstrate an intelligible pronunciation when communicating in simple everyday situations, provided the interlocutor makes an effort to understand specific sounds. • Communicate with the interlocutor when systematic mispronunciation of phonemes might hinder intelligibility, provided the interlocutor makes an effort to recognise and adjust to the influence of the speaker’s language background on pronunciation. • use the rhythm and intonation of everyday words and phrases intelligibly, in spite of a strong influence on stress, intonation and/or rhythm from the other language(s) they speak.
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<p>Module 2</p> <p>Professional communication in the foreign language</p>	<ul style="list-style-type: none"> • Language features (e.g. word stress) are adequate for familiar everyday words and simple utterances. <p>Students learn and practice how to Interact with colleagues or customers generally and more specifically for the level how to:</p> <p>Verbally</p> <ul style="list-style-type: none"> • Can make and respond to invitations, suggestions, apologies, etc. using learnt phrases and memorized exchanges • Can handle very short social exchanges, using everyday polite forms of greeting and address • Can expand learnt phrases through simple recombination of their elements • Can ask for attention • adapt well-rehearsed, memorised, simple phrases to particular circumstances through limited lexical substitution and difficulties in articulating less familiar words is usual. • Can expand learnt phrases through simple recombinations of their elements. • Can use simple techniques to start, maintain or close a short conversation. • Can give an example of something in a very simple text using “like” or “for example”. • Can communicate what they want to say in a simple and direct exchange of limited information on familiar • communicate basic information about basic professional details and needs of a concrete type in a simple way. • communicate very basic information about professional topics in a simple way, while pausing is expected and usual to search for expressions • manage very short, isolated, rehearsed utterances using gesture and signalled requests for help when necessary. <ul style="list-style-type: none"> • Can perform and respond to basic language functions, e.g. information exchange and requests, and express opinions and attitudes in a simple way. • Can socialise simply but effectively using the simplest common expressions and following basic routines.
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In Writing

- write short messages, e-mail messages, memos following a sample
- write SMSs using standard abbreviations and basic repertoire of written words and phrases
- fill in forms with details related to standards work situations
- write simple isolated phrases and sentences, which I have memorized or copied.
- write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things.
- take notes related to matters of immediate interest in work
- write simple isolated phrases and sentences, which he/she have memorized or copied.
- write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things.
- give information about matters of personal and professional relevance (e.g. likes and dislikes, family, pets) using simple words/signs and basic expressions.
- produce simple isolated phrases and sentences.
- describe in very simple language what a familiar object looks like.

Description of language skills for the Module

Level of language skills	General language skills	Professional language skills	Examples Teaching and learning resources developing these occupational skills
Understanding Listening A2	Can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). Can catch the main point in short, clear, simple messages and announcements.	<ul style="list-style-type: none"> ➤ can understand phrases and expressions related to the most immediate priority in the work environment ➤ can identify the topic of discussion ➤ can follow speech which is very slow and carefully articulated ➤ can understand instructions addressed carefully and slowly ➤ Can catch the main point in short, clear, simple message and announcements ➤ Can understand simple technical information, such as operating instructions for everyday equipment if clearly and slowly articulated ➤ Can extract the essential information from short, recorded passages dealing with predictable everyday work matters ➤ can understand enough to be able to meet needs of a concrete type provided speech is clearly and slowly articulated ➤ Can follow in outline short, simple social exchanges, conducted very slowly and clearly. ➤ Can generally identify the topic of discussion around them when it is conducted slowly and clearly. 	From Agriculture, Express Publishing, 2022 Book 2 Exercises 5, 6 and 7 from Unit 8 Soil Classification and Composition, p. 18 - 19 Book 2 Exercises 5, 6 and 7 from Unit 9 Salts and Acidity, p. 20 - 21 Book 2 Exercises 5, 6 and 7 from Unit 10 The Nitrogen Cycle, p. 22 - 23 Book 2 Exercises 5, 6 and 7 from Unit 11 Soil Conservation, p. 24 - 25 Book 2 Exercises 5, 6 and 7 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27 Book 2 Exercises 5, 6 and 7 from Unit 13 Climate and Weather, p. 28 - 29 Book 2 Exercises 5, 6 and 7 from Unit 14 Pricing, p. 30 - 31 Book 2 Exercises 5, 6 and 7 from Unit 15 Government Intervention, p. 32 - 33 Book 3 Exercises 5, 6 and 7 from Unit 5 Cropping Systems, p. 12 - 13 Book 3 Exercises 5, 6 and 7 from Unit 6 Growing Seasons, p. 14 - 15 Book 3 Exercises 5, 6 and 7 from Unit 7 Weeds, Pests and Diseases, p. 16 - 17 Book 3 Exercises 5, 6 and 7 from Unit 8 Diagnosing Crop Problems, p. 18 - 19 Book 3 Exercises 5, 6 and 7 from Unit 9 Agribusiness Management, p. 20 - 21 Book 3 Exercises 5, 6 and 7 from Unit 10 International Trade, p. 22 - 23

		<ul style="list-style-type: none"> ➤ Can recognise when people agree and disagree in a conversation conducted slowly and clearly. ➤ Can understand and follow a series of instructions for familiar everyday activities such as sports, cooking, etc., provided they are delivered slowly and clearly. 	<p>Book 3 Exercises 5, 6 and 7 from Unit 11 The Futures Market, p. 24 - 25</p> <p>Book 3 Exercises 5, 6 and 7 from Unit 12 Sustainable Farming, p. 26 - 27</p> <p>Book 3 Exercises 5, 6 and 7 from Unit 13 Technological Advances, p. 28 – 29</p> <p>Book 3 Exercises 5, 6 and 7 from Unit 14 Organic Farming, p. 30 – 31</p> <p>Book 3 Exercises 5, 6 and 7 from Unit 15 GMOs, p. 32 - 33</p>
Reading A1+ to A2	Can read very short, simple texts. Can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and can understand short simple personal letters.	<ul style="list-style-type: none"> ➤ can read and extract the necessary information related to working environment and the occupation. ➤ can extract the important information and main points from short specialised texts, manuals, orders, instructions, etc. ➤ can get a general understanding of a occupation-specific text. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 8 Soil Classification and Composition, p. 18 - 19</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 11 Soil Conservation, p. 24 - 25</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 13 Climate and Weather, p. 28 - 29</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 14 Pricing, p. 30 - 31</p> <p>Book 2 Exercises 2, 3 and 4 from Unit 15 Government Intervention, p. 32 - 33</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 5 Cropping Systems, p. 12 - 13</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 6 Growing Seasons, p. 14 - 15</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 7 Weeds, Pests and Diseases, p. 16 - 17</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 8 Diagnosing Crop Problems, p. 18 - 19</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 9 Agribusiness</p>

			<p>Management, p. 20 - 21</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 10 International Trade, p. 22 - 23</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 11 The Futures Market, p. 24 - 25</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 12 Sustainable Farming, p. 26 - 27</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 13 Technological Advances, p. 28 – 29</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 14 Organic Farming, p. 30 – 31</p> <p>Book 3 Exercises 2, 3 and 4 from Unit 15 GMOs, p. 32 - 33</p>
<p>Speaking</p> <p>Spoken interaction A1+ to A2</p>	<p>Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. Can handle very short social exchanges, even though cannot usually understand enough to keep the conversation going myself.</p>	<ul style="list-style-type: none"> ➤ can exchange information on a variety of simple and routine matters directly related to the immediate work environment. ➤ can ask questions, confirm information and avoid misunderstanding ➤ can handle a simple conversation in order to obtain goods and services ➤ can handle simple social exchanges with customers/colleagues, e.g. introductions, invitations, apologies. ➤ can ask and answer simple questions about someone’s preferences, requests, purchases and orders. ➤ can ask and answer questions about my own area of work using simple language. ➤ can ask for and give directions referring to a map or plan. ➤ can discuss in a very simple way events, activities and plans. ➤ can take simple telephone calls or put callers through. 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 8 Soil Classification and Composition, p. 18 - 19</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 11 Soil Conservation, p. 24 - 25</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 12 Preparing, Seeding and Planting, p. 26 - 27</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 13 Climate and Weather, p. 28 - 29</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 14 Pricing, p. 30 - 31</p> <p>Book 2 Exercises 1, 7 and 8 from Unit 15 Government Intervention, p. 32 - 33</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 5 Cropping Systems, p. 12 - 13</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 6 Growing Seasons, p. 14 - 15</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 7 Weeds, Pests and Diseases, p. 16 - 17</p>

		<ul style="list-style-type: none"> ➤ can make arrangements concerning meeting points/date/time/arrival and departure, when simple language is used. 	<p>Book 3 Exercises 1, 7 and 8 from Unit 8 Diagnosing Crop Problems, p. 18 - 19</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 9 Agribusiness Management, p. 20 - 21</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 10 International Trade, p. 22 - 23</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 11 The Futures Market, p. 24 - 25</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 12 Sustainable Farming, p. 26 - 27</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 13 Technological Advances, p. 28 – 29</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 14 Organic Farming, p. 30 – 31</p> <p>Book 3 Exercises 1, 7 and 8 from Unit 15 GMOs, p. 32 - 33</p>
Spoken production A1+	Can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job.	<ul style="list-style-type: none"> ➤ can describe myself and my environment, using simple language. ➤ can give a simple account of my work place, my job or company. ➤ can produce simple mainly isolated phrases about people and places related to my occupation. ➤ can read a very short, rehearsed statement – e.g. to introduce a person, propose a product. 	<p>Oral production (speaking) activities:</p> <ul style="list-style-type: none"> ▪ The language user produces an oral text which is received by an audience of one or more listeners. ▪ Examples: reading a written text aloud, speaking from notes or visual aids (diagram, pictures, charts, etc.) ▪ Acting out a rehearsed role <p>See above exercises for speaking interaction:</p> <ul style="list-style-type: none"> ▪ Distribute role cards – students read their role cards ▪ Write a diagram of the role play words/sentences on the board
Writing A1+	Can write short, simple notes and messages. Can write a very simple personal letter, for example thanking someone for something.	<ul style="list-style-type: none"> ➤ can write short letters, messages, e-mail messages, memos following a sample ➤ can write SMSs using standard abbreviations. ➤ can take notes related to matters of immediate interest in work 	<p>From Agriculture, Express Publishing, 2022</p> <p>Book 2 Exercise 9 from Unit 8 Soil Classification and Composition, p. 18 - 19</p> <p>Book 2 Exercise 9 from Unit 9 Salts and Acidity, p. 20 - 21</p> <p>Book 2 Exercise 9 from Unit 10 The Nitrogen Cycle, p. 22 - 23</p> <p>Book 2 Exercise 9 from Unit 11 Soil Conservation, p. 24 - 25</p> <p>Book 2 Exercise 9 from Unit 12 Preparing, Seeding and</p>

		<ul style="list-style-type: none"> ➤ can fill in forms with personal details (job, age, address, etc. ➤ can write simple isolated phrases and sentences, which I have memorized or copied. ➤ can write simple notes to colleagues/friends about appointments (time, place) often using familiar templates, and including greetings, forms of address, formulas to thank and ask for things. 	<p>Planting, p. 26 - 27 Book 2 Exercise 9 from Unit 13 Climate and Weather, p. 28 - 29 Book 2 Exercise 9 from Unit 14 Pricing, p. 30 - 31 Book 2 Exercise 9 from Unit 15 Government Intervention, p. 32 - 33</p> <p>Book 3 Exercise 9 from Unit 5 Cropping Systems, p. 12 - 13 Book 3 Exercise 9 from Unit 6 Growing Seasons, p. 14 - 15 Book 3 Exercise 9 from Unit 7 Weeds, Pests and Diseases, p. 16 - 17 Book 3 Exercise 9 from Unit 8 Diagnosing Crop Problems, p. 18 - 19 Book 3 Exercise 9 from Unit 9 Agribusiness Management, p. 20 - 21 Book 3 Exercise 9 from Unit 10 International Trade, p. 22 - 23 Book 3 Exercise 9 from Unit 11 The Futures Market, p. 24 - 25 Book 3 Exercise 9 from Unit 12 Sustainable Farming, p. 26 - 27 Book 3 Exercise 9 from Unit 13 Technological Advances, p. 28 - 29 Book 3 Exercise 9 from Unit 14 Organic Farming, p. 30 - 31 Book 3 Exercise 9 from Unit 15 GMOs, p. 32 - 33</p>
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Teaching/learning contents (guide lines) – Agricultural Technologies and Landscape, Grade 11

2 teaching hours per week

Topics from the Curriculum Package	Resources	Comments Teaching and learning focus and methods Linguistic aspects/teaching and learning methods
AGRICULTURAL MECHANIZATION	From Agriculture, Express Publishing, 2022 Book 3 Unit 13 Technological Advances, p. 28 – 29	
CEREAL, LEGUME AND LEGUME GROWING TECHNOLOGY	From Agriculture, Express Publishing, 2022 Book 2 Unit 8 Soil Classification and Composition, p. 18 – 19 (revision) Book 2 Unit 9 Salts and Acidity, p. 20 – 21 (revision) Book 2 Unit 10 The Nitrogen Cycle, p. 22 – 23 (revision) Book 2 Unit 11 Soil Conservation, p. 24 – 25 (revision) Book 3 Unit 5 Cropping Systems, p. 12 - 13 Book 3 Unit 12 Sustainable Farming, p. 26 - 27	
VEGETABLE, FRUIT AND PLANT GROWING TECHNOLOGIES	From Agriculture, Express Publishing, 2022 Book 2 Unit 12 Preparing, Seeding and Planting, p. 26 – 27 (revision) Book 2 Unit 13 Climate and Weather, p. 28 – 29 (revision) Book 3 Unit 6 Growing Seasons, p. 14 - 15 Book 3 Unit 7 Weeds, Pests and Diseases, p. 16 - 17 Book 3 Unit 8 Diagnosing Crop Problems, p. 18 - 19 Book 3 Unit 15 GMOs, p. 32 - 33	

<p>ENTREPRENEURSHIP</p>	<p>From Agriculture, Express Publishing, 2022 Book 2 Unit 14 Pricing, p. 30 - 31 Book 2 Unit 15 Government Intervention, p. 32 - 33 Book 3 Unit 9 Agribusiness Management, p. 20 - 21 Book 3 Unit 10 International Trade, p. 22 - 23 Book 3 Unit 11 The Futures Market, p. 24 – 25 Book 3 Unit 14 Organic Farming, p. 30 – 31</p>	
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Assessment:

- Self-assessment: According to the scale in the self-assessment grid of the Common European Framework (CEF)
- Tutor assessment: Tests, quizzes, case studies, simulations, role plays
- Final assessment: Test, case study

Recommended learning time:

- 60 hours face to face learning
- 60 hours individual learning

Vocabulary focus for reading and listening comprehension

Getting Started provides warm-up questions about the chapter topic. The questions' main purpose is to activate students' prior knowledge about the topic before they read the passage or listen to the audio file. The 'Get Ready!' exercise includes suggestions of questions that can serve this function. The teachers can also ask additional questions related to the school and occupational environment to activate students' prior knowledge.

Target words (terms)

Each unit introducing target words and asks students to assess their knowledge of each word both before and after they work through the chapter. Vocabulary learning is incremental (gradual, step-by step). Revision is required at least 3-4 times during the school year in various contexts. Even if students do not achieve productive mastery of every word by the time the chapter is finished, the process can show partial improvement (for example, from *no knowledge* to *receptive knowledge*). By avoiding a *no knowledge / full mastery dichotomy*, the process can show smaller degrees of learning. We would expect every student to learn enough about the target words to show some improvement, which should maintain and enhance their motivation.

Reading presents a reading passage that has been graded in various levels of difficulty. The embedding of the target vocabulary in these texts ensures that it is not introduced in isolation, but in meaningful contexts. There is also a great deal of target vocabulary in these texts that is not specifically focused on in the chapter, and that provides natural recycling in new contexts of words students have already studied.

In addition, the passages are suitable for a wide range of reading-based tasks that can be constructed by the teacher to ensure mastering of target words. This integration of reading and vocabulary allows the study of lexis in programs that have

a reading focus, and promotes the beneficial concurrent improvement of reading and vocabulary skills. For example, at the end of each passage, there are exercises (Reading Comprehension) that focus on comprehension ranging from literal details, recognition of true/false, matching of terms with definitions and filling gaps with targeted words.

Focusing on Vocabulary means:

- Word Meaning features a variety of exercises designed to help students learn the meaning of each of the twenty-four target words.
- Word Families provides practice in recognizing and using the various derivative word forms that make up a word's family (or words of the same category).
- Collocation exercises are designed to improve students' intuitions about the collocations a word takes (mouse, LED mouse, laser mouse, ball mouse).

Vocabulary Learning Strategies

To learn target words well, students will need to continue meeting and learning these word families outside of this book. This means you will need to use vocabulary strategies to maximize your learning. Below, we describe a number of these vocabulary learning strategies.

USING A DICTIONARY

One of the most important reasons to use a dictionary is to discover a word's meaning. However, many words have more than one meaning, and you must be careful to choose the one that matches the context.

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|--------------|--------------------------|
| 1 __ Mac | 5 __ hardware |
| 2 __ Windows | 6 __ software compatible |
| 3 __ macOS | 7 __ processing speed |
| 4 __ Linux | 8 __ vulnerable |

- A a computing device
- B being able to run different programs
- C an operating system developed by Apple
- D an operating system that uses open source software
- E a measure of how fast a computer operates
- F an operating system developed by Microsoft
- G a computer developed by Apple
- H open to attack

Teachers can design similar tasks using a dictionary or the glossary to the teaching and learning resources as part of this package.

GUESSING FROM CONTEXT

Guessing the meaning of a new word from context is a very good way to supplement the learning of vocabulary from a book like this. You can get clues from the surrounding words and the construction of the sentences.

Teachers can use short texts for guessing from context. The teachers can ask questions such as:

What is the meaning of?

What are the clues that helped you discover this meaning?

How could this help you understand the meaning of?

EXTENSIVE READING

Although students gain a lot of benefits from studying words, they also need to see or hear them in many contexts to understand how to use them appropriately. One of the best ways to gain this wide exposure is to read extensively. The repeated exposure to words in reading will help students remember their spellings and meanings, and will also show the other words they commonly occur with. In other words, by reading widely, you will eventually begin to get a feel for which words collocate with the words you are learning.

USING INTERNET TOOLS

Nowadays, there are many Internet sites that can help your learning. Teachers can use internet sources for allowing for extensive reading and seeing target words in many contexts to understand how to use them appropriately.

Guide to Vocabulary Focus Approach – Agricultural Technologies and Landscape, Grade 11

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Vocabulary/ Target words and phrases	Comments / additional target words and phrases
Book 2					
	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	classification, clay, coarse-grain, composition, finegrain, grain, highly-organic, peat, sand, silt, texture, unified soil classification system	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	acidity, alkaline, dryland salinity, lime, pH value, salinity, salinity, secondary salinity, sodicity, sodium, sulphur, toxic	
	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	ammonia, denitrification, eutrophication, fixation, mineralization, nitrates, nitrification, nitrites, nitrogen cycle, nitrous oxide, nutrient-poor	
	11	Soil conservation	Reading a magazine article (multiple choice questions)	contour farming, cover crops, crop rotation, erosion, grassway, green manure, keyline design, land degradation, nutrition depletion, perimeter runoff control, soil conservation, windbreaks	
	12	Preparing, seeding and planting	Reading a section from a farmer's guide (true/false statements)	amendment, broadcast seeding, emergence, fertilizer, grain, herbicide, no-till method, seeds per pound, soil temperature, tilling method, top soil	
	13	Climate and weather	Reading an article from a seed catalogue (true/false statements)	climate, hardiness zone, humidity, last frost, long-range forecast, mulch, precipitation, soil moisture, temperature	

	14	Pricing	Reading a business letter (multiple choice questions)	cost of production, direct marketing, indirect marketing, market, pricing, pricing for competition, pricing for profit, pricing for value, pricing strategy, produce, supply and demand	
	15	Government intervention	Reading a newspaper article (true/false statements)	adjusting production, decline, fallow, food and fiber industry, foreign trade enhancement, market demand, price floor, price support, quota, surplus, tariff	
Book 3					
	5	Cropping systems	Reading a publication on cropping systems (multiple choice questions)	burn-down herbicide, conservation tillage, conventional tillage, crop residue, crop rotation, cropping system, diversify, fallow, polyculture, spring wheat, winter wheat, zero tillage	
	6	Growing seasons	Reading a magazine article (true/false statements)	base temperature, elevation, freeze protection, greenhouse, growing degree day, growing season, heaters, hoop house, last frost date, mean temperature, photoperiod, site selection	
	7	Weeds, pests and disease	Reading a page from a farmer's guide (true/false statements)	bacterial, biological control, blight, fungal, fungicide, herbicide, mulching, pathogen, pest management, pesticide, sanitize, suppression, weed, weed map	
	8	Diagnosing crop problems	Reading a webpage from an agricultural extension office (multiple choice questions)	abiotic, agricultural advisor, biotic, brown, field pattern, stippled, stunted, symptom, symptom pattern, symptomology key, wilt	
	9	Agribusiness management	Reading a letter from an accountant to a farmer (true/false statements)	debt, farm cash receipts, feed costs, fixed cash expense, gross farm revenue, income, interest payments, loan, net farm income, noncash expense, total production expenses	

	10	International trade	Reading trade profile summaries (true/false statements)	balance of trade, export, export dependent, import, import dependent, international trade, quota, tariff, trade deficit, trade surplus, World Trade Organization	
	11	The future markets	Reading an article from a financial newspaper (multiple choice questions)	beginning stock, carryover, change, commodity, ending stock, futures market, high, index, low, open, stocks-to-use ratio, value	
	12	Sustainable farming	Reading a flyer for a discussion on sustainable farming (true/false statements)	biodiversity, compost, economic sustainability, intercropping, monoculture, non-renewable resource, off-farm impact, soil amendment, sustainable, systems perspective	
	13	Technological advances	Reading a product listing from an equipment manufacturer (true/false statements)	air seeding, auto-steer, automated bin management, drip irrigation system, GPS, mechanized, overplanting, overwatering, self-propelled, smart irrigation control, technology	
	14	Organic farming	Reading an article on organic farming (multiple choice questions)	audit trail documents, certifier, commingle, compliance, contamination, field activity log, inspector, material inputs, organic, organic integrity, organic systems plan	
	15	GMOs	Reading a webpage from a seed company (true/false statements)	analysis, animal performance assessment, biotech seed, characterizing, conventional seed, drought-tolerant, genetically modified organism, herbicide-tolerant, insectresistant, nitrogen efficiency, trait, yield enhancement	

Resource for distribution of the teaching/learning content – Agricultural Technologies and Landscape, Grade 11

(using the description of the teaching/learning content you can indicate when during the school year you plan to use the relevant units and exercises for developing of language skills; under comments you can indicate whether revision is needed and when)

From Agriculture, Express Publishing, 2022

	Unit	Topic	Reading	Listening	Speaking	Writing	Comments
Book 2							
	8	Soil classification and composition	Reading a soil analysis report (true/false statements)	Listening to a conversation between a scientist and a farmer (multiple choice questions); Completing a conversation	Acting out a dialogue between a scientist and a farmer	Filling out a farmer's notes	
	9	Salts and acidity	Reading a newspaper article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out g a farmer's plan to lower soil acidity	

	10	The nitrogen cycle	Reading a textbook passage (true/false statements)	Listening to a conversation between two farmers (multiple choice questions); Completing a conversation	Acting out a dialogue between two farmers on nitrogen and fertilizers	Filling out a farmer's schedule	
	11	Soil conservation	Reading a magazine article (multiple choice questions)	Listening to a conversation between two farmers (true/false statements); Completing a conversation	Acting out a dialogue between two farmers	Filling out a farmer's plan	
	12	Preparing, seeding and planting	Reading a section from a farmer's guide (true/false statements)	Listening to a conversation between two farmers (listening for specific information); Completing a conversation	Acting out a dialogue between two farmers	Writing an e-mail to a farm owner	
	13	Climate and weather	Reading an article from a seed catalogue (true/false statements)	Listening to a conversation between a seed store employee and a customer (true/false statements); Completing a conversation	Acting out a dialogue between a seed store employee and a customer	Filling out a customer feedback form	

	14	Pricing	Reading a business letter (multiple choice questions)	Listening to a conversation between a consultant and a farmer (true/false statements); Completing a conversation	Acting out a dialogue between a business consultant and a farmer	Describing a new pricing strategy	
	15	Government intervention	Reading a newspaper article (true/false statements)	Listening to a conversation between a farmer and an assistant (multiple choice questions); Completing a conversation	Acting out a dialogue between a farmer and a governmental assistant	Filling out a memo to farm staff	
Book 3							
	5	Cropping systems	Reading a publication on cropping systems (multiple choice questions)	Listening to a conversation between a farmer and an assistant (true/false statements); Completing a conversation	Acting out a dialogue between a farmer and an assistant	Writing a cropping system schedule	
	6	Growing seasons	Reading a magazine article (true/false statements)	Listening to a conversation between	Acting out a dialogue between two farmers	Writing an advice letter to a farm owner	

				two farmers (multiple choice questions); Completing a conversation			
	7	Weeds, pests and disease	Reading a page from a farmer's guide (true/false statements)	Listening to a conversation between two farmers (multiple choice questions); Completing a conversation	Acting out a dialogue between two farmers	Writing a memo to farm staff about a crop problem	
	8	Diagnosing crop problems	Reading a webpage from an agricultural extension office (multiple choice questions)	Listening to a conversation between an agricultural advisor and a farmer (true/false statements); Completing a conversation	Acting out a dialogue between an agricultural advisor and a farmer	Writing an e-mail to an agricultural advisor	
	9	Agribusiness management	Reading a letter from an accountant to a farmer (true/false statements)	Listening to a conversation between a farmer and an accountant (multiple choice questions); Completing a conversation	Acting out a dialogue between a farmer and an accountant	Writing a farmer's financial summary	

	10	International trade	Reading trade profile summaries (true/false statements)	Listening to a conversation between a farmer and an accountant (multiple choice questions); Completing a conversation	Acting out a dialogue between a farmer and an accountant	Writing an e-mail to a farmer	
	11	The future markets	Reading an article from a financial newspaper (multiple choice questions)	Listening to a conversation between a farmer and an investment analyst (true/false statements); Completing a conversation	Acting out a dialogue between a farmer and an investment analyst	Writing a letter to a farmer	
	12	Sustainable farming	Reading a flyer for a discussion on sustainable farming (true/false statements)	Listening to a conversation between a farmer and a sustainable farming expert (multiple choice questions); Completing a conversation	Acting out a dialogue between a farmer and a sustainable farming expert	Writing notes on a talk about sustainable farming	
	13	Technological advances	Reading a product listing from an equipment	Listening to a conversation between a farmer and a salesperson (listening	Acting out a dialogue between a farmer and a salesperson	Writing an advertisement for a new	

			manufacturer (true/false statements)	for specific information); Completing a conversation		a piece of agricultural equipment	
	14	Organic farming	Reading an article on organic farming (multiple choice questions)	Listening to a conversation between a farmer and an organic inspector (true/false statements); Completing a conversation	Acting out a dialogue between a farmer and an organic inspector	Writing a crop inspector's report	
	15	GMOs	Reading a webpage from a seed company (true/false statements)	Listening to a conversation between a seed developer and a salesman (multiple choice questions); Completing a conversation	Acting out a dialogue between a seed developer and a salesman	Writing product descriptions of two new seeds	

Focus on developing communicative skills through interaction activities and strategies

Module 2 referred to in the Framework curriculum leading towards communicative competences in professional context and environment described by the following learning objectives:

- Can maintain effective communication within the team.
- Can lead effective business communication.
- Can use a foreign language in professional activities.
- Can communicate effectively with customers, both verbally and in writing.
- Can refer to various English resources in order to carry out the daily activities of the profession.
- Can use social networking and current communication applications effectively.

The learning/teaching process in all grades is closely linked to the internships/ practice of students in working contexts and the practical acquisition of vocational/professional skills in real-life work situations and in close familiarization of the routine and a range of standard work activities performed. The methodological message is that language learning should be directed towards enabling learners to act in real-life situations, expressing themselves and accomplishing tasks of different natures. Thus, the criterion suggested for assessment is communicative ability in real life, in relation to a continuum of ability (Levels A1-B1).

The basic approach in all grades is **the action-oriented approach**. At the classroom level, there are several implications of implementing the action-oriented approach. Seeing learners as social agents implies involving them in the learning process, possibly with descriptors as a means of communication. The foreign language packs for each grade contain description of language skills using descriptors in the form of “can-do” statements. The approach also implies recognising the social nature of language learning and language use, namely the interaction between the social and the individual in the process of learning. Seeing learners as language users implies extensive use of the target language in the classroom – learning to use the language rather than just learning about the language (as a subject)¹. Recommendation: language learning in all grades should be based on the real work tasks that student perform in their practice/internships and should be discussed, if possible, with their mentors/ teachers.

The action-oriented approach implies purposeful, collaborative tasks in the classroom, the primary focus of which is not language. If the primary focus of a task is not language, then there must be some other product or outcome (such as making an appointment, communication with a customer, performing an action, creating a product, taking part in a process, offering advice or discussing prices). Descriptors can be used to help design such tasks and also to observe and, if desired, to (self-)assess the language use of learners during the task. Interaction leads to co-construction of meaning and this has to be central to the learning and teaching process. This has clear implications for the classroom. At times, this interaction will be between teacher and learner(s), but at times, it will be of a

¹ CEFR, Chapter 2.2. Implementing the action-oriented approach.

collaborative nature, between learners themselves. The precise balance between teacher-centred instruction and such collaborative interaction between learners in small groups is likely to reflect the context, the pedagogic tradition in that context and the proficiency level of the learners concerned.

In any communicative situation, general competences (for example, knowledge of the local context, knowledge of the work process and standard activities) are always combined with communicative language competences (linguistic, sociolinguistic and pragmatic competences: CEFR 2001 Section 5.2) and strategies (some general, some communicative language strategies). These are competences the foreign language teachers has to rely on as they are not expected to be expert in the area of vocational education. Teachers are advised to exploit existing knowledge and competences of student already acquired in their vocational classes and in turn develop them further.

Tasks often require some collaboration with others – hence the need for language. The example chosen in CEFR 2001 Chapter 2 to introduce this idea – moving – is one in which the use of language is only contingent on the task. In moving a wardrobe, some communication, preferably through language, is clearly advisable, but language is not the focus of the task. Similarly, tasks demanding greater sophistication of communication, such as agreeing on the preferred solution to a problem in functioning of a device, or serving a customer, focus on the task outcomes rather than the language used to achieve them.

The overall approach of the CEFR is summarised in a single paragraph:

Language use, embracing language learning, comprises the actions performed by persons who as individuals and as social agents develop a range of **competences**, both **general** and in particular **communicative language competences**. They draw on the competences at their disposal in various contexts under various **conditions** and under various **constraints** to engage in **language activities** involving **language processes** to produce and/or receive **texts** in relation to **themes** in specific **domains**, activating those **strategies** which seem most appropriate for carrying out the **tasks** to be accomplished. The monitoring of these actions by the participants leads to the reinforcement or modification of their competences. (CEFR 2001 Section 2.1)

In performing tasks, competences and strategies are mobilised in the performance and in turn further developed through that experience. In an “action-oriented approach” some collaborative tasks in the language classroom are therefore essential. This is why the CEFR 2001 includes a chapter on tasks. Additionally, you have in your packs a guide for construction of tasks, which you might find useful. CEFR 2001 Chapter 7 discusses real-life tasks and pedagogic tasks, possibilities for compromise between the two, factors that make tasks simple or complex from a language point of view, conditions and constraints. The precise form that tasks in the classroom may take, and the dominance that they should have in the programme, is for individual teachers to decide. No matter what perspective is adopted, it is implicit that tasks in the language classroom should involve communicative language activities and strategies (CEFR 2001 Section 4.4) that also occur in the real world, like those students are asked to perform or observe in their practices/ internships.

Methodological tip

It is important to apply a methodological approach which does not accept that students have already achieved high competence level (B1 or even A2) in listening, speaking and written interaction. It is significant to start by confirming the acquisition of competences relevant for lower levels (A1 and A1+) and gradually progress to competences relevant for higher levels. Learners are different and it is important to convey the message that acquisition of any level, even A1+ is positive. The focus should be on what students *can do*, which means they can act effectively and perform tasks in real-life situations. The focus at this stage should not be on what students know (linguistic knowledge) but on *what students at various levels can do*.

The current methodological pack includes overview of all skill-based and language competence definitions relevant for the developed Vocational Framework Curricula. The highest potentially achievable level appropriate for the number of teaching and learning hours included in the Framework Curricula is B1 (independent level) at which the learner is beginning to use the language more independently and creatively. B1 is a level for independent user. However, it can be expected that not all students will reach and confirm the acquisition of competences at B1 level. Achieving basic user level (A1+ and A2) should be considered as a major achievement as at this level most of the standard, routine work tasks can be effectively performed.

Communication/ Interaction

Interaction, which involves two or more parties co-constructing discourse, is central to the learning/teaching process in all grades. Interpersonal interaction is considered to be the origin of language, with interpersonal, collaborative and transactional functions. Interaction is also fundamental in learning. The CEFR scales for interaction strategies reflect this with scales for turntaking, co-operating (= collaborative strategies) and asking for clarification. These basic interaction strategies are as important in collaborative learning as they are in real-world communication. The majority of the activities for interaction concern oral interaction. However, as pointed out in the Vocational Framework Curricula written interaction (= writing much as you would speak, in a slowed-down dialogue) has taken an increasingly significant role over the past 20 years. Therefore, the new category of online interaction has been developed and has to be specially focused upon.

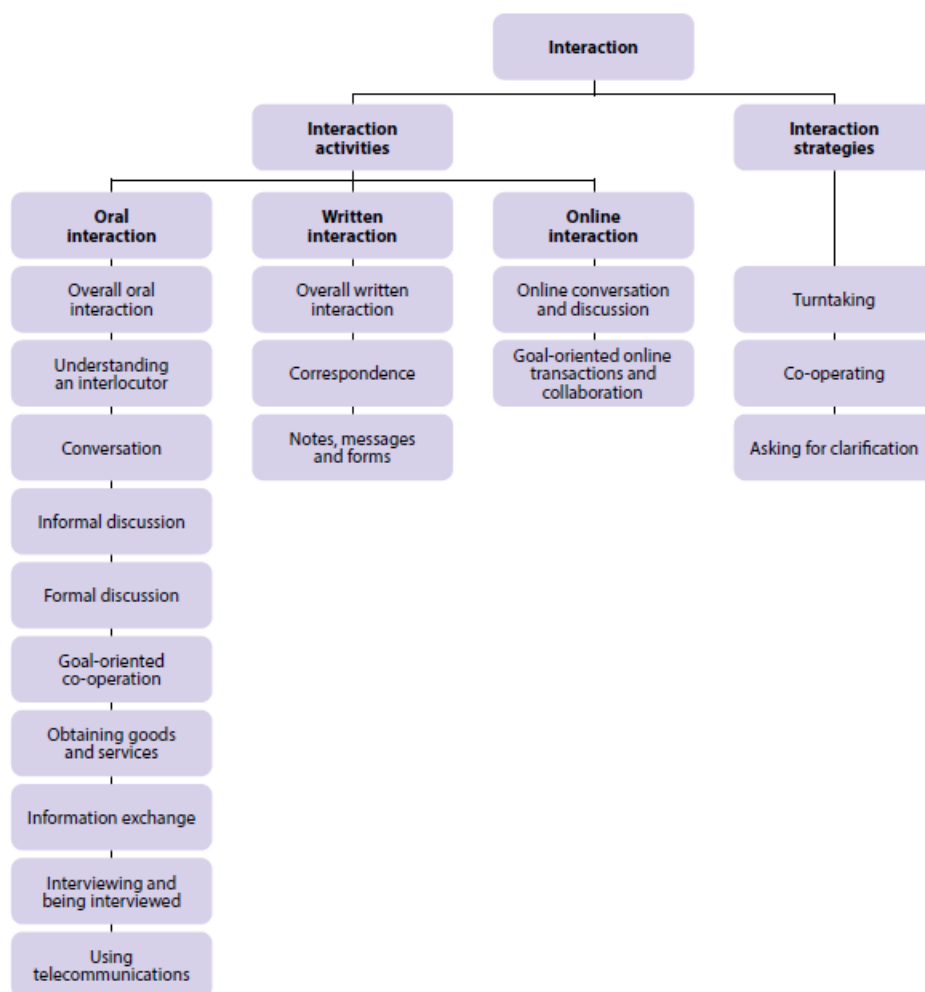


Fig. 1. Interactive activities and strategies (summary).

The activities (descriptors) begin with “Understanding an interlocutor”. “Interlocutor” is a somewhat technical term that means the person with whom one is conversing directly in a dialogue. Here are some explanations of the different categories or type of activities teachers should focus on.

B1	Can communicate with some confidence on familiar routine and non-routine matters related to their interests and professional field. Can exchange, check and confirm information, deal with less routine situations and explain why something is a problem. Can express thoughts on more abstract, cultural topics such as films, books, music, etc.
	Can exploit a wide range of simple language to deal with most situations likely to arise while travelling. Can enter unprepared into conversation on familiar topics, and express personal opinions and exchange information on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events).
A2	Can interact with reasonable ease in structured situations and short conversations, provided the other person helps if necessary. Can manage simple, routine exchanges without undue effort; can ask and answer questions and exchange ideas and information on familiar topics in predictable everyday situations.
	Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters to do with work and free time. Can handle very short social exchanges but is rarely able to understand enough to keep conversation going of their own accord.
A1	Can interact in a simple way but communication is totally dependent on repetition at a slower rate, rephrasing and repair. Can ask and answer simple questions, initiate and respond to simple statements in areas of immediate need or on very familiar topics.
Pre-A1	Can ask and answer questions about themselves and daily routines, using short, formulaic expressions and relying on gestures to reinforce the information.

Understanding an interlocutor:

- understanding a person with whom you are conversing directly in an interaction, with the possibility of negotiating meaning. The aspects referred to here are:
 - topic and setting: from personal details and everyday needs to complex and abstract topics of a specialist nature;
 - degree of accommodation by the interlocutor: from sympathetic repetition and taking the trouble to help to just confirming details if the accent is less familiar.

B1	Can follow clearly articulated speech/sign directed at them in everyday conversation, though will sometimes have to ask for repetition of particular words/signs and phrases.
A2	Can understand enough to manage simple, routine exchanges without undue effort. Can generally understand clear, standard speech/sign on familiar matters directed at them, provided they can ask for repetition or reformulation from time to time.
	Can understand what is said clearly, slowly and directly to them in simple everyday conversation; can be made to understand, if the interlocutor can take the trouble.
A1	Can understand everyday expressions aimed at the satisfaction of simple needs of a concrete type, delivered directly to them clearly and slowly, with repetition, by a sympathetic interlocutor. Can understand questions and instructions addressed carefully and slowly to them and follow short, simple directions.
Pre-A1	Can understand simple questions that directly concern them (e.g. name, age and address), if the person is asking slowly and clearly. Can understand simple personal information (e.g. name, age, place of residence, origin) when other people introduce themselves slowly and clearly, directly to them, and can understand questions on this theme addressed to them, though the questions may need to be repeated. Can understand a number of familiar words/signs and recognise key information (e.g. numbers, prices, dates and days of the week), provided the delivery is very slow, with repetition if necessary.

Conversation

- interaction with a primarily social function: the establishment and maintenance of personal relationships
 - setting: from short exchanges, through maintaining a conversation and sustaining relationships, to flexible use for social purposes;
 - topics: from personal news, through familiar topics of personal interest, to most general topics;
 - language functions: from greetings, etc., through offers, invitations and permission, to degrees of emotion and allusive, joking usage.

B1	<p>Can start up a conversation and help keep it going by asking people relatively spontaneous questions about a special experience or event, expressing reactions and opinions on familiar subjects.</p> <p>Can have relatively long conversations on subjects of common interest, provided the interlocutor makes an effort to support understanding.</p>
B1	<p>Can enter unprepared into conversations on familiar topics.</p> <p>Can follow clearly articulated language directed at them in everyday conversation, though will sometimes have to ask for repetition of particular words/signs.</p> <p>Can maintain a conversation or discussion but may sometimes be difficult to follow when trying to express exactly what they would like to.</p> <p>Can express and respond to feelings such as surprise, happiness, sadness, interest and indifference.</p>
A2	<p>Can establish social contact (e.g. greetings and farewells, introductions, giving thanks).</p> <p>Can generally understand clear, standard language on familiar matters directed at them, provided they can ask for repetition or reformulation from time to time.</p> <p>Can participate in short conversations in routine contexts on topics of interest.</p> <p>Can express how they feel in simple terms, and express thanks.</p> <p>Can ask for a favour (e.g. to borrow something), can offer a favour, and can respond if someone asks them to do a favour for them.</p>
A2	<p>Can handle very short social exchanges but is rarely able to understand enough to keep conversation going of their own accord, though they can be made to understand if the interlocutor will take the trouble.</p> <p>Can use simple, everyday, polite forms of greeting and address.</p> <p>Can converse in simple language with peers, colleagues or members of a host family, asking questions and understanding answers relating to most routine matters.</p> <p>Can make and respond to invitations, suggestions and apologies.</p> <p>Can express how they are feeling, using very basic stock expressions.</p> <p>Can state what they like and dislike.</p>
A1	<p>Can understand everyday expressions aimed at the satisfaction of simple needs of a concrete type, delivered directly to them in clear, slow and repeated language by a sympathetic interlocutor.</p> <p>Can take part in a simple conversation of a basic factual nature on a predictable topic (e.g. their home country, family, school).</p> <p>Can make an introduction and use basic greeting and leave-taking expressions.</p> <p>Can ask how people are and react to news.</p>
Pre-A1	<p>Can understand and use basic, formulaic expressions such as "Yes", "No", "Excuse me", "Please", "Thank you", "No thank you", "Sorry".</p> <p>Can recognise simple greetings.</p> <p>Can greet people, state their name and take leave in a simple way.</p>

Informal discussion (with friends or members of the team)

- includes aspects of both the interpersonal and evaluative use of language, since these tend to be interwoven in everyday interaction.
 - topics: from what to do and where to go, to abstract, complex and even unfamiliar topics and sensitive issues;
 - ability to follow the discussion: from identifying the topic, through following the main points, to keeping up with animated discussion and understanding colloquial references;
 - language functions: from discussing and (dis)agreeing in a limited way to expressing ideas with precision and dealing diplomatically with disagreement and criticism.

B1	<p>Can follow much of what is said around them on general topics, provided interlocutors avoid very idiomatic usage and articulate clearly.</p> <p>Can express their thoughts about abstract or cultural topics such as music or films.</p> <p>Can explain why something is a problem.</p> <p>Can give brief comments on the views of others.</p> <p>Can compare and contrast alternatives, discussing what to do, where to go, who or which to choose, etc.</p>
	<p>Can generally follow the main points in an informal discussion with friends provided they articulate clearly in standard language or a familiar variety.</p> <p>Can give or seek personal views and opinions in discussing topics of interest.</p> <p>Can make their opinions and reactions understood as regards solutions to problems or practical questions of where to go, what to do, or how to organise an event (e.g. an outing).</p> <p>Can express beliefs, opinions and agreement and disagreement politely.</p>
A2	<p>Can generally identify the topic of discussion around them when it is conducted slowly and clearly.</p> <p>Can exchange opinions and compare things and people using simple language.</p> <p>Can discuss what to do in the evening or at the weekend.</p> <p>Can make and respond to suggestions.</p> <p>Can agree and disagree with others.</p>
	<p>Can discuss everyday practical issues in a simple way when addressed clearly, slowly and directly.</p> <p>Can discuss what to do, where to go and make arrangements to meet.</p> <p>Can express opinions in a limited way.</p>
A1	<p>Can exchange likes and dislikes for sports, foods, etc., using a limited repertoire of expressions, when addressed clearly, slowly and directly.</p>
Pre-A1	<p><i>No descriptors available</i></p>

Formal discussion (meetings, instructions, briefings)

- more formal discussion, mainly in a professional context.
 - type of meeting and topics: from exchanges on practical problems to discussion of abstract, complex, unfamiliar issues;
 - ability to follow the discussion: from needing repetition and clarification to understanding points given prominence and keeping up with animated debate;
 - ability to contribute: from needing to rehearse and get help with formulation to probing, evaluating and challenging the contributions of others and arguing one's own position convincingly.

B1	Can follow much of what is said that is related to their field, provided interlocutors avoid very idiomatic usage and articulate clearly. Can put over a point of view clearly, but has difficulty engaging in debate.
	Can take part in routine formal discussion of familiar subjects which is clearly articulated in the standard form of the language or a familiar variety and which involves the exchange of factual information, receiving instructions or the discussion of solutions to practical problems. Can follow argumentation and discussion on a familiar or predictable topic, provided the points are made in relatively simple language and/or repeated, and opportunity is given for clarification.
A2	Can generally follow changes of topic in formal discussion related to their field which is conducted slowly and clearly. Can exchange relevant information and give their opinion on practical problems when asked directly, provided they receive some help with formulation and can ask for repetition of key points if necessary.
	Can express what they think about things when addressed directly in a formal meeting, provided they can ask for repetition of key points if necessary.
A1	<i>No descriptors available</i>
Pre-A1	<i>No descriptors available</i>

Goal-oriented co-operation

- collaborative, task-focused work, which is a daily occurrence in real life, especially in professional contexts.
 - following the discussion: from understanding simple instructions explained directly to them to understanding detailed instructions reliably;
 - active contribution to the work: from simply asking for things and giving things to speculating about causes and consequences and organising the entire task.

B1	<p>Can follow what is said, though they may occasionally have to ask for repetition or clarification if the discussion is rapid or extended.</p> <p>Can explain why something is a problem, discuss what to do next, and compare and contrast alternatives.</p> <p>Can give brief comments on the views of others.</p>
	<p>Can generally follow what is said and, when necessary, repeat back part of what someone has said to confirm mutual understanding.</p> <p>Can make their opinions and reactions understood as regards possible solutions or the question of what to do next, giving brief reasons and explanations.</p> <p>Can invite others to give their views on how to proceed.</p>
A2	<p>Can understand enough to manage simple, routine tasks without undue effort, asking very simply for repetition when they do not understand.</p> <p>Can discuss what to do next, making and responding to suggestions, and asking for and giving directions.</p>
	<p>Can indicate when they are following and can be made to understand what is necessary, if the interlocutor takes the trouble.</p> <p>Can communicate in simple and routine tasks using simple phrases to ask for and provide things, to get simple information and to discuss what to do next.</p>
A1	<p>Can understand questions and instructions addressed carefully and slowly to them and follow short, simple directions.</p> <p>Can act on basic instructions that involve times, locations, numbers, etc.</p> <p>Can ask people for things, and give people things.</p>

Obtaining goods and services

- service encounters in work contexts and in restaurants, shops, banks, etc.
 - types of situation: from simple everyday transactions to disputes about responsibility and sensitive transactions in public, professional or academic life;
 - getting service: from asking for food and drink to asking detailed questions about more complex services;
 - demanding satisfaction: from making a complaint (B1) to negotiating a solution to a dispute or a sensitive transaction.

B1	<p>Can deal with most transactions likely to arise while travelling, arranging travel or accommodation, or dealing with authorities during a foreign visit.</p> <p>Can ask in a shop for an explanation of the difference between two or more products serving the same purpose, in order to make a decision, posing follow-up questions as necessary.</p> <p>Can cope with less routine situations in shops, post offices, banks, e.g. returning an unsatisfactory purchase.</p> <p>Can make a complaint.</p> <p>Can deal with most situations likely to arise when making travel arrangements through an agent or when actually travelling, e.g. asking a passenger where to get off for an unfamiliar destination.</p>
A2	<p>Can deal with common aspects of everyday living such as travel, lodging, eating and shopping.</p> <p>Can interact in predictable everyday situations (e.g. post office, station, shop), using a wide range of simple expressions.</p> <p>Can get all the information needed from a tourist office, as long as it is of a straightforward, non-specialised nature.</p> <p>Can ask for and provide everyday goods and services.</p> <p>Can get simple information about travel, use public transport (e.g. buses, trains, taxis), ask and give directions, and buy tickets.</p> <p>Can ask about things and make simple transactions in shops, post offices or banks.</p> <p>Can give and receive information about quantities, numbers, prices, etc.</p> <p>Can make simple purchases by stating what is wanted and asking the price.</p> <p>Can order a meal.</p> <p>Can point out when something is wrong (e.g. “The food is cold” or “There is no light in my room”).</p> <p>Can ask (face-to-face) for a medical appointment and understand the reply. Can indicate the nature of a problem to a health professional, perhaps using gestures and body language.</p>
A1	<p>Can ask people for things and give people things.</p> <p>Can ask for food and drink using basic expressions.</p> <p>Can handle numbers, quantities, cost and time.</p>
Pre-A1	<p>Can make simple purchases and/or order food or drink when pointing or other gesture can support the verbal reference.</p>

Information exchange

- exchanging factual information
 - type of transaction: from simple questions, instructions and directions, through simple, routine exchanges, to exchanging information with other specialists;
 - type of information: from personal details, dates, prices, etc., through habits, routines, pastimes and straightforward factual information, to detailed and complex information or advice.

B1	Can exchange, check and confirm accumulated factual information on familiar routine and non-routine matters within their field with some confidence.
	Can summarise and give their opinion about a short story, article, talk, discussion, interview or documentary and answer further questions of detail.
B1	Can find out and pass on straightforward factual information.
	Can ask for and follow detailed directions.
	Can obtain more detailed information.
	Can offer advice on simple matters within their field of experience.
A2	Can understand enough to manage simple, routine exchanges without undue effort.
	Can deal with practical everyday demands: finding out and passing on straightforward factual information.
	Can ask and answer questions about habits and routines.
	Can ask and answer questions about pastimes and past activities.
	Can ask and answer questions about plans and intentions.
	Can give and follow simple directions and instructions, e.g. explain how to get somewhere.
A2	Can communicate in simple and routine tasks requiring a simple and direct exchange of information.
	Can exchange limited information on familiar and routine operational matters.
	Can ask and answer questions about what they do at work and in their free time.
	Can ask for and give directions referring to a map or plan.
	Can ask for and provide personal information.
A1	Can ask and answer simple questions about an event (e.g. ask where and when it took place, who was there and what it was like).
	Can understand questions and instructions addressed carefully and slowly to them and follow short, simple directions.
	Can ask and answer simple questions, initiate and respond to simple statements in areas of immediate need or on very familiar topics.
	Can ask and answer questions about themselves and other people, where they live, people they know, things they have.
	Can indicate time by lexicalised phrases like “next week”, “last Friday”, “in November”, “3 o’clock”.
Pre-A1	Can express numbers, quantities and cost in a limited way.
	Can name the colour of clothes or other familiar objects and can ask the colour of such objects.
	Can tell people their name and ask other people their names.
	Can use and understand simple numbers in everyday conversations.
	Can ask and tell what day, time of day and date it is.
Pre-A1	Can ask for and give a date of birth.
	Can ask for and give a phone number.
	Can tell people their age and ask people about their age.
	Can ask very simple questions for information, such as “What is this?” and understand one- or two-word/ sign answers.

Interviewing and being interviewed

- the specialised roles associated with appointments and job applications as well as other forms of examination, general performance, etc.
 - independence from the interlocutor: from requiring direct, slow, clear standard language to acting without any support, at no disadvantage to the other person(s);
 - taking the initiative: from bringing up new subjects (B1) to participating fully, developing a point fluently and handling interjections well;
 - conducting the actual interview: from using a prepared questionnaire (B1), through departing spontaneously from prepared questions and following up and probing interesting replies, to structuring the discourse and interacting authoritatively.

B1	Can provide concrete information required in an interview/consultation (e.g. describe symptoms to a doctor), but with limited precision.
	Can carry out a prepared interview, checking and confirming information, though they may occasionally have to ask for repetition if the other person's response is rapid or extended.
B1	Can take some initiative in an interview/consultation (e.g. to bring up a new subject) but is very dependent on the interviewer in the interaction.
	Can describe symptoms in a simple way and ask for advice when using health services, and can understand the answer, provided this is given clearly in everyday language.
	Can use a prepared questionnaire to carry out a structured interview, with some spontaneous follow-up questions.
A2	Can make themselves understood in an interview and communicate ideas and information on familiar topics, provided they can ask for clarification occasionally, and are given some help to express what they want to.
	Can describe to a doctor very basic symptoms and ailments such as a cold or the flu.
	Can answer simple questions and respond to simple statements in an interview.
A1	Can indicate in simple language the nature of a problem to a health professional, perhaps using gestures and body language.
	Can reply in an interview to simple direct questions, put very slowly and clearly in direct, non-idiomatic language, about personal details.
A1	Can state in simple language the nature of a problem to a health professional and answer simple questions such as "Does that hurt?" even though they have to rely on gestures and body language to reinforce the message.

Using telecommunications

- use of the phone and internet-based apps for remote communication
 - range of information and transactions involved: from simple messages and conversations on predictable topics like arrival times, routine messages and basic services to use for a variety of personal and professional purposes;
 - interlocutor: from a known person to unknown persons with less familiar accents;
 - length of exchange: from short, simple exchanges to extended casual conversation.

B1	Can use telecommunications for everyday personal or professional purposes, provided they can ask for clarification from time to time. Can give important details over the (video)phone concerning an unexpected incident (e.g. a problem in a hotel, with travel arrangements, with a hire car).
	Can use telecommunications to have relatively simple but extended conversations with people they know personally. Can use telecommunications for routine messages (e.g. arrangements for a meeting) and to obtain basic services (e.g. book a hotel room or make a medical appointment).
A2	Can use telecommunications with their friends to exchange simple news, make plans and arrange to meet.
	Can, given repetition and clarifications, participate in a short, simple phone conversation with a known person on a predictable topic, e.g. arrival times, arrangements to meet. Can understand a simple message (e.g. "My flight is late. I will arrive at 10 o'clock."), confirm details of the message and pass it on by phone to other people concerned.

Written interaction

Written interaction concerns interactive communication through the medium of script. The number of formal and informal video-recorded chats and message exchanges has been rising rapidly, most notably through WhatsApp. In some countries, signers can now send enquiries, comments and complaints to certain service providers through a dedicated web portal. Most interactive situations are tolerant of some error and confusion and have some contextual support. There is usually an opportunity to use interaction strategies like asking for clarification or asking for help with formulation and to repair misunderstandings. The requirement to produce carefully structured, accurate text is less of a priority.

B1	Can convey information and ideas on abstract as well as concrete topics, check information, and ask about or explain problems with reasonable precision.
	Can compose personal letters and notes asking for or conveying simple information of immediate relevance, getting across the point they feel to be important.
A2	Can compose short, simple formulaic notes relating to matters in areas of immediate need.
A1	Can ask for or pass on personal details.
Pre-A1	Can convey basic information (e.g. name, address, family) in short phrases on a form or in a note, with the use of a dictionary.

Correspondence

personal and formal correspondence, since this is an activity that some user/learners need to carry out.

- type of message: from simple, personal messages, to in-depth, personal and professional correspondence;
- type of language: from formulaic expressions to emotional, allusive and joking usage and writing with good expression in an appropriate tone and style.

B1	<p>Can compose personal letters giving news and expressing thoughts about abstract or cultural topics such as music or film.</p> <p>Can compose letters expressing different opinions and giving detailed accounts of personal feelings and experiences.</p> <p>Can reply to an advertisement in writing and ask for further information on items that interest them.</p> <p>Can compose basic formal e-mails/letters (e.g. to make a complaint and request action).</p>
	<p>Can compose personal letters describing experiences, feelings and events in some detail.</p> <p>Can compose basic e-mails/letters of a factual nature (e.g. to request information or to ask for and give confirmation).</p> <p>Can compose a basic letter of application with limited supporting details.</p>
A2	<p>Can exchange information by text message, by e-mail or in short letters, responding to questions from the other person (e.g. about a new product or activity).</p>
	<p>Can convey personal information of a routine nature, for example in a short e-mail or letter introducing themselves.</p> <p>Can compose very simple personal letters expressing thanks and apology.</p> <p>Can compose short, simple notes, e-mails and text messages (e.g. to send or reply to an invitation, to confirm or change an arrangement).</p> <p>Can compose a short text in a greetings card (e.g. for someone's birthday or to wish them a Happy New Year).</p>
	<p>Can compose messages and online postings as a series of very short sentences about hobbies and likes/dislikes, using simple words and formulaic expressions, with reference to a dictionary.</p>
A1	<p>Can compose a short, simple postcard.</p> <p>Can compose a short, very simple message (e.g. a text message) to friends to give them a piece of information or to ask them a question.</p>
Pre-A1	<p>Can convey basic personal information in short phrases and sentences, with reference to a dictionary.</p>

Notes, messages and forms

This encompasses a range of transactional interactive writing. At the A levels it includes filling in forms with personal details. From A2 the focus is on taking or leaving messages and writing/signing short notes.

- filling in forms with personal details (Pre-A1 to A2);
- leaving and taking messages, from simple messages about time, through messages containing several points, to complex personal or professional messages;
- formulating notes: from short and simple to more developed notes to friends, service people, teachers, etc.

B1	Can take routine messages that are likely to occur in a personal, professional or academic context. Can take messages communicating enquiries and explaining problems.
	Can formulate notes conveying simple information of immediate relevance to friends, service people, teachers and others who feature in their everyday life, getting across comprehensibly the points they feel are important. Can take messages over the phone containing several points, provided the caller dictates these clearly and sympathetically.
A2	Can take a short, simple message provided they can ask for repetition and reformulation.
	Can formulate short, simple notes and messages relating to matters in areas of immediate need. Can fill in personal and other details on most everyday forms (e.g. to open a bank account, or to send a letter by recorded delivery).
A1	Can fill in numbers and dates, own name, nationality, address, age, date of birth or arrival in the country, etc., e.g. on a hotel registration form.
	Can leave a simple message giving information regarding for instance where they have gone, or what time they will be back (e.g. "Shopping: back at 5 p.m.").
Pre-A1	Can fill in very simple registration forms with basic personal details: name, address, nationality, marital status.

Online interaction

Online communication is always mediated through a machine, which implies that it is unlikely ever to be exactly the same as face-to-face interaction. There are emergent properties of group interaction online that are almost impossible to capture in traditional competence scales focusing on the individual's behaviour in speech, signing or in writing. For instance, there is an availability of resources shared in real time. On the other hand, there may be misunderstandings that are not spotted (and corrected) immediately, as is often easier with face-to-face communication.

Some requirements for successful communication are:

- the need for more redundancy in messages;
- the need to check that the message has been correctly understood;
- ability to reformulate in order to help comprehension and deal with misunderstandings;
- ability to handle emotional reactions.

Online conversation and discussion

- conversation and discussion online as a multimodal phenomenon, with an emphasis on how interlocutors communicate online to handle both serious issues and social exchanges in an open-ended way.
 - instances of simultaneous (real-time) and consecutive interaction, the latter allowing time to prepare a draft and/or consult aids;
 - participation in sustained interaction with one or more interlocutors;
 - composing posts and contributions for others to respond to;
 - comments (for example, evaluative) on the posts, comments and contributions of others;
 - reactions to embedded media;
 - the ability to include symbols, images and other codes to make the message convey tone, stress and prosody, but also the affective/emotional side, irony, etc.

B1	Can engage in real-time online exchanges with more than one participant, recognising the communicative intentions of each contributor, but may not understand details or implications without further explanation.
	Can post online accounts of social events, experiences and activities referring to embedded links and media and sharing personal feelings.
A2+	Can post a comprehensible contribution in an online discussion on a familiar topic of interest, provided they can prepare the text beforehand and use online tools to fill gaps in language and check accuracy.
	Can make personal online postings about experiences, feelings and events and respond individually to the comments of others in some detail, though lexical limitations sometimes cause repetition and inappropriate formulation.
A2	Can introduce themselves and manage simple exchanges online, asking and answering questions and exchanging ideas on predictable everyday topics, provided enough time is allowed to formulate responses, and that they interact with one interlocutor at a time.
	Can make short descriptive online postings about everyday matters, social activities and feelings, with simple key details.
A1	Can comment on other people's online postings, provided they are written/signed in simple language, reacting to embedded media by expressing feelings of surprise, interest and indifference in a simple way.
	Can engage in basic social communication online (e.g. a simple message on a virtual card for special occasions, sharing news and making/confirming arrangements to meet).
Pre-A1	Can make brief positive or negative comments online about embedded links and media using a repertoire of basic language, though they will generally have to refer to an online translation tool and other resources.
	Can formulate very simple messages and personal online postings as a series of very short sentences about hobbies, likes/dislikes, etc., relying on the aid of a translation tool.
A1	Can use formulaic expressions and combinations of simple words/signs to post short positive and negative reactions to simple online postings and their embedded links and media, and can respond to further comments with standard expressions of thanks and apology.
	Can post simple online greetings, using basic formulaic expressions and emoticons.
Pre-A1	Can post online short simple statements about themselves (e.g. relationship status, nationality, occupation), provided they can select them from a menu and/or refer to an online translation tool.

A user/learner will struggle to interact successfully in an online meeting until they reach the B levels, will be able to interact in a virtual “classroom” at A2 only if carefully guided, and maybe can communicate only very superficially at A1 when posting and chatting in the “cafe”.

Goal-oriented online transactions and collaborations

- potentially collaborative nature of online interaction and transactions that have specific goals, as a regular feature of contemporary life.

B1	<p>Can engage in online transactions that require an extended exchange of information, provided the interlocutor(s) avoid complex language and are willing to repeat and reformulate when necessary.</p> <p>Can interact online with a group that is working on a project, following straightforward instructions, seeking clarification and helping to accomplish the shared tasks.</p>
	<p>Can engage in online collaborative or transactional exchanges that require simple clarification or explanation of relevant details, such as registering for a course, tour or event, or applying for membership.</p> <p>Can interact online with a partner or small group working on a project, provided there are visual aids such as images, statistics and graphs to clarify more complex concepts.</p> <p>Can respond to instructions and ask questions or request clarifications in order to accomplish a shared task online.</p>
A2	<p>Can use formulaic language to respond to routine problems arising in online transactions (e.g. concerning availability of models and special offers, delivery dates, addresses).</p> <p>Can interact online with a supportive partner in a simple collaborative task, responding to basic instructions and seeking clarification, provided there are visual aids such as images, statistics or graphs to clarify the concepts involved.</p>
	<p>Can make simple online transactions (e.g. ordering goods or enrolling in a course) by filling in an online form or questionnaire, providing personal details and confirming acceptance of terms and conditions, declining extra services, etc.</p> <p>Can ask basic questions about the availability of a product or feature.</p> <p>Can respond to simple instructions and ask simple questions in order to accomplish a shared task online with the help of a supportive interlocutor.</p>
A1	<p>Can complete a very simple online purchase or application, providing basic personal information (e.g. name, e-mail or telephone number).</p>
Pre-A1	<p>Can make selections (e.g. choosing a product, size, colour) in a simple online purchase or application form, provided there is visual support.</p>

The move towards higher levels expands from basic transactions and information exchange at the A levels towards more sophisticated collaborative project work that is goal-oriented. This can be seen as a progression from filling in predictable online forms at Pre-A1, to solving various problems in order for the transaction to take place at the B levels. Simple collaborative tasks appear at A2+, with a co-operative interlocutor, or with small group project work from B1.

Interaction strategies

Interaction strategies are linked to developing pragmatic competences. They include: “Taking the floor” (“Turntaking”), “Co-operating” and “Asking for clarification”.

They are also introduced at higher levels than A1.

Asking for clarification (can be first introduced)

A1

- Can indicate with simple words/signs, intonation and gestures that they do not understand.
- Can express in a simple way that they do not understand.

A2

- Can ask very simply for repetition when they do not understand.
- Can ask for clarification about key words/signs or phrases not understood, using stock phrases.
- Can indicate that they did not follow.
- Can signal non-understanding and ask for a word/sign to be spelt out.

B1

- Can ask for further details and clarifications from other group members in order to move a discussion forward.
- Can ask someone to clarify or elaborate what they have just said.

Taking the floor

A2

- Can use simple techniques to start, maintain or end a short conversation.
- Can initiate, maintain and close simple, face-to-face conversation.
- Can ask for attention.

B1

- Can intervene in a discussion on a familiar topic, using a suitable phrase to get the floor.
- Can initiate, maintain and close simple, face-to-face conversation on topics that are familiar or of personal interest.

Co-operating

A2

- Can indicate when they are following.

B1

- Can repeat back part of what someone has said to confirm mutual understanding and help keep the development of ideas on course.
- Can invite others into the discussion.

Additional suggestions:

Application of the VAK model

Activities can be a major contribution to the success of a class. In addition to reinforcing and consolidating grammar rules and vocabulary, and encouraging learners to speak freely, activities can be a tool for reaching different learner types. When we create activities, we need to keep in mind the diversity of our classrooms.

Real learning occurs when we address our learners' needs and preferences, helping to create the motivation for them to participate in the activities which we offer them. They need to develop a sense of personal accountability making them responsible for their own learning. In order to do this, they need to become involved in the learning process as well as the material to be learned. By recognising our learners as individuals and helping them to reach their objectives in learning a foreign language, we provide them with the basics of a learning atmosphere which puts them into a learning state. Students who are confronted with new material as well as adults who have been working hard outside the classroom are grateful for activities which are varied, interesting and fun.

The VAK model uses materials which allow different types of learners (visual, auditory, and kinaesthetic motoric and kinaesthetic emotional learners) to perceive, process and recall information through one of these sensory channels. By creating

- activities which include pictures, words, and movement;
- activities which can be done in group work by communicating with others, or alone by thinking and reflecting;
- activities which are to be approached systematically or in a more random style,

the chances of reaching learners of all types are greatly increased. The activities also help us to create both a supportive and energetic atmosphere in the classroom.

These visual, auditory and kinaesthetic channels are often seen as filters which help us to perceive the world around us. They refer to the way we take in, store and recall information.

Here is how the benefit for the different types of learners is explained in the introduction of *Communicative Business English Activities*, by Marjorie Rosenberg, Express Publishing, 2018. The book applies this method and provides a number of appropriate relevant activities to perform in class in all grades.

Visual learners like to see things written down. They enjoy activities with pictures or words they can see and enjoy putting things into categories. They may remember where they have seen something so activities which make use of putting things in a different order can help them to remember better later.

Auditory learners need to listen or speak. They enjoy activities where they can exchange information orally with a partner or in a group. As they tend to learn sequentially, it is helpful for them to change the order of what they have learned, an element built into these activities.

Kinaesthetic motoric learners need to try things out for themselves. They learn by doing and through real-life experiences. They also enjoy activities using flashcards, role plays and board games. They often learn by moving about so having activities which combine movement and words can help them to recall the material later when they need it.

Kinaesthetic emotional learners rely on their feelings and need to connect what they learn with both positive and personal experiences. They like to be creative and imaginative, important aspects of these flexible activities. As they may need to separate themselves from their emotions, taking on a new role and observing themselves from outside the situation can be helpful for them in the learning process.

Teacher's Guides to the Express Publishing Textbooks include specially designed activities for communication and interaction under the rubric Ending the class/Rounding up. For example: Activities with a focus on vocabulary involving communicative activities among students (moving, talking, collaborating, word hunt, guessing, etc.)

Review the unit vocabulary

- **Write down the vocabulary on separate pieces of paper.** Keep the words in one pile. Write the definitions of the vocabulary on separate pieces of paper. Keep the definitions in another pile. Give each student one of the words and one of the definitions. Make sure that the two do not match up. Tell students not to read the definitions that they have to the other students. Instead, they should ask for the words for their definitions. Do not allow students to show each other the slips of paper that they have. If a student has the definition that another student asks for, he/she should give it to them. When all students have the definitions for their words/phrases, have each one read them out and check if they are correct. Then invite volunteers to make sentences with the words/phrases they have. Continue until all the vocabulary has been reviewed. (examples of the activity Agriculture, Express Publishing, **Book 3 Unit 1, Rounding up after Exercise 9 Writing**)
- Ask a volunteer to come up to the board and **write a word/phrase from the unit and its definition.** The rest of the class decides if it is correct before the next student comes to the board and does the same. Continue until all of the unit vocabulary has been reviewed. (examples of the activity Agriculture, Express Publishing Book 1 **Unit 7 Rounding up after Exercise 9 Writing**)
- **Draw a pyramid on the board.** Make sure that the pyramid has the same number of squares as there are words in the unit. Number the squares on the pyramid on the board. Split students into pairs. Tell both students to copy down the pyramid. Have Student A write down one word in each square. Instruct Student A not to show Student B his/her pyramid. Student A should describe each of the words without saying the word. Student B should write down the word he/she thinks Student A is describing in the corresponding square. Tell students that they have two minutes to write down as many of the words as possible. When students have finished, have them compare the pyramids. Then have students switch roles and repeat. When all of the pairs have finished, invite volunteers to share their pyramids with the class. (examples of the activity Agriculture, Express Publishing, Book 2 **Unit 4 Rounding up after Exercise 9 Writing**)
- **Split the students into groups of three or four.** Invite one member from each group to the board. Tell them a word. Instruct the students at the board to each write a sentence using the word. Remind students that the sentence must show that they understand the meaning of the word. When the students have finished writing their sentences, they must sit down. Then their teammates have the chance to correct the

sentence or approve it. After one of the teams approves the sentence, all of the teams must stop working. As a class, check each of the teams' sentences. Each team that uses the word correctly gets a point. Repeat with different students at the board. Continue until all of the vocabulary has been reviewed. The team with the most points wins. (example of the activity Agriculture, Express Publishing, Book 2 **Unit 11 Rounding up after exercise 9 Writing**)

- **Split the class into two teams.** Have one person from each team sit with their back facing the board. Write a vocabulary word on the board (agriculture, farming, water supply, planted crops, irrigation ditch, cultivate, harvest, produce, domesticated). Both teams must describe the word without using gestures to their teammate (at the same time). The first person with their back facing the board to guess the correct answer gets one point for their team. Switch the students who are guessing. Continue until you have reviewed all of the vocabulary. (example of the activity Agriculture, Express Publishing, Book 1 **Unit 1 rounding up after Exercise 9 Writing**)
- **Split the class into teams.** With books closed have students take turns to say as many vocabulary items as they can remember from the unit and give their definitions. Each correct word gets a point and the team with the most points when you have reviewed all of the vocabulary wins. example of the activity Agriculture, Express Publishing, Book 1 **Unit 6 rounding up after Exercise 9 Writing**)
- **Divide the students into two teams.** Have one student from each team come to the front of the room. Call out one of the vocabulary words. The first student who slaps the desk gets the opportunity to say the definition of the word. If the student gets the definition correct, his/her team gets a point. If he/she gets the definition incorrect, his/her team loses a point and the other team gets the chance to define the word a steal a point. The player that defines the word gets the opportunity to get a bonus point using the word in a sentence correctly. Switch players that are at the front of the room. Repeat until all of the vocabulary words have been reviewed. The team with the most points wins. (example of the activity Agriculture, Express Publishing, Book 1 **Unit 14 Rounding up after Exercise 9 Writing**)
- **Have students stand in a circle.** Play music and have the students throw a paper ball around the circle. Pause the music and call out a word. The students that is holding the ball must define the word. If he/she defines the word correctly, he/she should continue standing in the circle. If he/she defines the word incorrectly, he/she must sit down. Continue until all the vocabulary has been defined correctly. Alternatively, you may have students use the words in sentences instead of defining them. (example of the activity Agriculture, Express Publishing, Book 2 **Unit 8 Rounding up after Exercise 9 Writing**)

For more examples for Review of unit vocabulary activities consult the relevant Teacher's Guide.

GLOSSARY

Agriculture, Express Publishing, 2022

Book 1

- **aeration**

[N-UNCOUNT-U4] **Aeration** is the action of exposing soil to air.

- **agriculture**

[N-UNCOUNT-U1] **Agriculture** is the study or process of growing plants and raising animals.

- **animal nutritionist**

[N-COUNT-U10] An **animal nutritionist** is a person who prepares healthy foods for animals.

- **arid**

[ADJ-U5] If an area is **arid**, it gets very little rain each year.

- **bale**

[N-COUNT-U15] A **bale** is a bunch of crops that is tied or bundled together.

- **bale wrapper**

[N-COUNT-U15] A **bale wrapper** is a farming device that wraps bales in plastic.

- **baler**

[N-COUNT-U15] A **baler** is a farming device pulled behind a tractor that gathers and ties cut hay or straw into rectangular bundles.

- **barn**

[N-COUNT-U11] A **barn** is a building where farm animals live.

- **bone**

[N-COUNT-U3] **Bone** is the hard, white material that gives the body structure.

- **branch**

[N-COUNT-U7] A **branch** is a thick limb from which stems grow.

- **breeding**

[N-UNCOUNT-U12] **Breeding** is the act of mating plants or animals to produce offspring.

- **breeding value**

[N-UNCOUNT-U12] **Breeding value** is the value of an individual animal as a parent in terms of producing a specifically desired result.

- **broadcast seeder**

[N-COUNT-U14] A **broadcast seeder** is a farming device on the back of a tractor that spreads seeds and fertilizer.

- **bud**

[N-COUNT-U7] A **bud** is the small part of a plant that grows from the stem or branch and develops into a leaf or flower.

- **bulk**

[ADJ-U6] If an order is in **bulk**, it has a large quantity.

- **bunker silo**

[N-COUNT-U9] A **bunker silo** is a long, covered trench for storing agricultural products.

- **bushel**

[N-COUNT-U8] A **bushel** is a unit for measuring grain that is equal to approximately 35.2 liters.

- **butcher**

[V-T-U13] To **butcher** is to kill animals and to prepare the meat to be eaten.

- **by-product**

[N-COUNT-U3] A **by-product** is a leftover part of an animal that has been slaughtered.

- **carbohydrate**

[N-COUNT-U10] A **carbohydrate** is a substance in food that the body uses to make energy.

- **cereal**

[N-COUNT-U2] A **cereal** plant is one that makes grain.

- **chaff**

[N-UNCOUNT-U8] **Chaff** is a part of a plant that cannot be eaten or used.

- **chaser bin**

[N-COUNT-U15] A **chaser bin** is a cart that carries grain or corn from a field to storage.

- **chisel plow**

[N-COUNT-U14] A **chisel plow** is a device attached to a tractor that goes deep into the earth to turn soil.

- **clay**

[N-UNCOUNT-U4] **Clay** is a type of sticky soil used to make pots, bricks, or tiles.

- **cold stress**

[N-UNCOUNT-U11] **Cold stress** is when cold temperatures have a negative effect on animals or plants.

- **combine harvester**
[N-COUNT-U15] A **combine harvester** is a farming machine that harvests crops of grain.
- **comfort zone**
[N-COUNT-U11] A **comfort zone** is the environment in which one feels comfortable.
- **conveyor belt**
[N-COUNT-U15] A **conveyor belt** is a moving strip of material that transports objects to other areas.
- **cool**
[V-I or T-U9] To **cool** something is to decrease its temperature.
- **coop**
[N-COUNT-U11] A **coop** is a special building where chickens or other small animals live.
- **critical temperature**
[N-COUNT-U11] A **critical temperature** is a temperature above or below which some important change happens.
- **crop**
[N-COUNT-U1] A **crop** is the total number of plants grown for food, fuel or any other economic purpose.
- **cultipacker**
[N-COUNT-U14] A **cultipacker** is a farming machine that flattens soil so that seeds can be planted.
- **cultivate**
[V-T-U1] To **cultivate** is to grow food with care.
- **cultivator**
[N-COUNT-U14] A **cultivator** is a farm tool that breaks apart soil and weeds so that seeds can be planted.
- **cut**
[N-COUNT-U13] A **cut** is meat taken from a particular area of a butchered animal.
- **days to maturity**
[EXPRESSION-U6] **Days to maturity** are the number of days it takes a seedling to become a harvestable adult plant.
- **ditch**
[N-COUNT-U5] A **ditch** is a long, narrow cut in the ground used to hold or move water.
- **domesticated**
[ADJ-U1] **Domesticated** animals are tamed and plants are adapted for human use.

- **dormancy**
[N-UNCOUNT-U6] **Dormancy** is the state of not being active now with the possibility of being active later.
- **drought**
[N-COUNT-U5] **Drought** is when an area gets less rain or snow than is typical.
- **drought-resistant**
[ADJ-U5] If a plant is **drought-resistant**, it can survive in a drought.
- **dry**
[V-T-U9] To **dry** something is to remove moisture from it.
- **(EPD) expected progeny difference**
[ABBREV-U12] An **EPD (expected progeny difference)** is the likelihood an offspring will inherit a particular trait from its parents.
- **farmer's market**
[N-COUNT-U2] A **farmer's market** is a market where local farmers sell produce directly to customers.
- **farming**
[N-UNCOUNT-U1] **Farming** is growing plants or raising animals.
- **fat**
[N-UNCOUNT-U3] **Fat** is an oily substance found in plants and animals.
- **feed**
[N-UNCOUNT-U10] **Feed** is food given to animals.
- **flower**
[V-I-U7] If a plant **flowers**, it produces colorful blooms.
- **forage harvester**
[N-COUNT-U15] A **forage harvester** is a device that is attached to tractors, and cuts up plants which will be turned into silage.
- **fruit**
[N-COUNT-U2] A **fruit** is the part of an edible plant that has seeds.
- **germinate**
[V-I-U6] To **germinate** is for a seed to begin to grow.
- **gleaner**
[N-COUNT-U15] A **gleaner** is a harvest machine that does not require gas for fuel.
- **grain auger**
[N-COUNT-U15] A **grain auger** is a farming device that moves grain from trucks and carts into storage bins.

- **gravity wagon**
[N-COUNT-U15] A **gravity wagon** is an angled cart pulled behind a tractor that allows crops to be easily unloaded.
- **groundwater**
[N-UNCOUNT-U5] **Groundwater** is the water that is underground.
- **growth chart**
[N-COUNT-U7] A **growth chart** is a graph that shows the change in growth of a population of a group of plants.
- **hard coat**
[N-COUNT-U6] A **hard coat** is the hard outer layer of some seeds.
- **harrow**
[N-COUNT-U14] A **harrow** is a plow that breaks apart soil, removes weeds, and smoothes the earth.
- **harvest**
[N-COUNT-U2] A **harvest** is a group of mature plants.
- **harvest**
[N-COUNT-U8] A **harvest** is a process of gathering crops.
- **harvest**
[V-T-U1] To **harvest** is to collect a crop.
- **hay conditioner**
[N-COUNT-U15] A **hay conditioner** is a farming device that cuts hay so it will dry quickly.
- **head**
[N-COUNT-U13] **Head** is a word used to describe groups of farm animals where each animal counts as one head.
- **heat stress**
[N-UNCOUNT-U11] **Heat stress** is when hot temperatures have a negative effect on animals or plants.
- **hemp**
[N-UNCOUNT-U2] **Hemp** is a type of plant that produces tough fibers.
- **heritability**
[N-UNCOUNT-U12] **Heritability** is the likelihood an offspring will inherit a trait from a parent.
- **hide**
[N-COUNT-U13] **Hide** is the skin of animals that can be treated and made into furniture and clothing.

- **hoof**
[N-COUNT-U3] A **hoof** is the hard foot of an animal.
- **humane**
[ADJ-U13] If slaughter is **humane**, it is done so the animal feels little pain.
- **humus**
[N-UNCOUNT-U4] **Humus** is a type of soil made of dead plants or other organic matter.
- **hybrid**
[ADJ-U6] If a plant is **hybrid**, it is made by parents of different breeds.
- **industrial crop**
[N-COUNT-U2] An **industrial crop** is a plant grown for manufacture or production purposes instead of food.
- **inspect**
[V-T-U13] To **inspect** is to carefully check products for flaws.
- **irrigate**
[V-T-U5] To **irrigate** is to provide water to crops.
- **irrigation**
[N-UNCOUNT-U1] **Irrigation** is the practice of bringing clean water to plants.
- **kill fee**
[N-COUNT-U13] A **kill fee** is what a farmer pays to have an animal slaughtered.
- **leaf**
[N-COUNT-U7] A **leaf** is the flat part of a plant that grows from the stem or branch.
- **leather**
[N-UNCOUNT-U3] **Leather** is animal skin that can be dried and treated and then made into clothes, accessories or furniture.
- **legume**
[N-COUNT-U2] A **legume** is an edible plant that has pods.
- **leveling**
[N-UNCOUNT-U9] **Leveling** is the process of flattening the top of a stored pile of grain.
- **loam**
[N-UNCOUNT-U4] **Loam** is a type of soil that has silt, clay and sand.
- **mature**
[V-I-U8] To **mature** is to become more developed.
- **meat**
[N-UNCOUNT-U3] **Meat** is the edible flesh of an animal.

- **melon**
[N-COUNT-U2] A **melon** is a large, sweet kind of fruit.
- **milk**
[N-UNCOUNT-U3] **Milk** is white liquid produced by mammals as a food source.
- **mineral**
[N-COUNT-U10] A **mineral** is an inorganic substance, like potassium, that can be found in food and helps the body stay healthy.
- **moisture**
[N-UNCOUNT-U9] **Moisture** refers to the tiny amounts of water in the air or on something.
- **mold**
[N-UNCOUNT-U9] **Mold** is a substance that grows on rotting organic material.
- **nutrient**
[N-COUNT-U10] A **nutrient** is any substance in food that helps plants or animals live and grow.
- **nutrition**
[N-UNCOUNT-U10] **Nutrition** is the process of nourishing an organism.
- **offal**
[N-UNCOUNT-U13] **Offal** are the parts of an animal that can't be eaten by humans.
- **parent material**
[N-COUNT-U4] **Parent material** is the rock or mineral from which soil forms.
- **pedigree**
[N-COUNT-U12] A **pedigree** is the line of relationships from an offspring to its parents and their parents and so forth.
- **pen**
[N-COUNT-U11] A **pen** is a small enclosure for farm animals.
- **photosynthesis**
[N-UNCOUNT-U7] **Photosynthesis** is a process in which a plant uses light to convert water and carbon dioxide into food.
- **plant**
[V-T-U1] To **plant** is to put seeds in the soil and help them grow.
- **planter**
[N-COUNT-U14] A **planter** is a device pulled behind a tractor that lays down seeds in rows and covers them.
- **poultry**
[N-UNCOUNT-U10] **Poultry** are domesticated birds, usually chickens and turkeys.

- **processing**
[N-UNCOUNT-U13] **Processing** of animal products means preparing them for eating or manufacturing.
- **produce**
[V-T-U1] To **produce** is to make something that can be sold.
- **progeny**
[N-UNCOUNT-U12] **Progeny** are the descendants of a specific individual.
- **protein**
[N-UNCOUNT-U3] **Protein** is a chemical in plant or animal material that helps the body grow.
- **quinoa**
[N-UNCOUNT-U7] **Quinoa** is a strong plant grown for its seeds which are used as food and/or ground into flour.
- **rainfall**
[N-UNCOUNT-U5] **Rainfall** is the amount of rain that falls on a place during a given period of time.
- **rain-fed**
[ADJ-U5] If crops are **rain-fed**, they get water from rain.
- **rate of gain**
[N-COUNT-U12] The **rate of gain** is the rate at which an offspring gains weight.
- **ration**
[N-COUNT-U10] A **ration** is a selected amount of food.
- **reap**
[V-T-U8] To **reap** a crop is to collect it from the field.
- **rendering**
[V-T-U3] To **render** animal fat is to melt it for use in a product.
- **root**
[N-COUNT-U7] A **root** is the underground part of a plant that draws water and minerals from the surrounding soil.
- **rototiller**
[N-COUNT-U14] A **rototiller** is a farming machine that turns soil so that seeds can be planted.
- **sand**
[N-UNCOUNT-U4] **Sand** is a type of soil made of very small pieces of rock or mineral that is often found on the beach or in the desert.

- **seed**
[N-COUNT-U6] A **seed** is a small, usually hard, object from which a plant grows.
- **seed drill**
[N-COUNT-U14] A **seed drill** is a device pulled behind a tractor that plants seeds.
- **seed vigor**
[N-UNCOUNT-U6] **Seed vigor** is how likely a seed is to grow and how strong its seedling will be.
- **seedling**
[N-COUNT-U6] A **seedling** is a baby plant that comes from a seed.
- **shortage**
[N-COUNT-U1] A **shortage** is a smaller amount or lack of something that is needed.
- **silage bag**
[N-COUNT-U9] A **silage bag** is large plastic bag for storing agricultural products.
- **silt**
[N-UNCOUNT-U4] **Silt** is made when soil mixes with a body of water and then is deposited.
- **sire summary**
[N-COUNT-U12] A **sire summary** is a list of genetic predictions for a male animal used for breeding purposes.
- **slaughter**
[V-T-U13] To **slaughter** is to kill animals for food or manufacture.
- **slotted floor**
[N-COUNT-U11] A **slotted floor** is a floor with long narrow holes that allow air to circulate.
- **soil**
[N-UNCOUNT-U4] **Soil** is the layer of the earth's surface in which plants grow.
- **soil structure**
[N-COUNT-U4] **Soil structure** is how particles in the soil are connected to each other and how much space there is between them.
- **soil texture**
[N-COUNT-U4] **Soil texture** is the classification of the size of particles within soil.
- **sow**
[V-T-U6] To **sow** is to plant seeds on or into the ground.
- **sowing method**
[N-COUNT-U6] The **sowing method** is the way in which you plant a seed.
- **space requirement**
[N-COUNT-U11] A **space requirement** is the amount of space an animal needs for living.

- **stack**
[N-COUNT-U8] A **stack** is an organized group or pile of something.
- **stem**
[N-COUNT-U7] A **stem** is the long, narrow part of a plant that supports the leaves and flowers.
- **stone picker**
[N-COUNT-U14] A **stone picker** is a farming device that separates rocks from good soil.
- **storage**
[N-UNCOUNT-U9] **Storage** is the act of keeping something somewhere while it is not in use.
- **tallow**
[N-UNCOUNT-U3] **Tallow** is fat from an animal that can be made into soap or candles.
- **threshing**
[N-UNCOUNT-U8] **Threshing** is the process of removing seeds or grain from a plant.
- **ton**
[N-COUNT-U8] A **ton** is a unit of weight measurement that is equal to 2000 pounds or 907 kilograms.
- **tower silo**
[N-COUNT-U9] A **tower silo** is a tall, round structure for storing agricultural products.
- **tractor**
[N-COUNT-U14] A **tractor** is a vehicle with large wheels that pulls farm machinery.
- **trait selection**
[N-UNCOUNT-U12] **Trait selection** is the process of breeding to achieve a certain trait or traits in the offspring.
- **transplanter**
[N-COUNT-U14] A **transplanter** is a device pulled behind a tractor that places small plants in the soil.
- **tuber**
[N-COUNT-U2] A **tuber** is an edible plant that grows completely underground.
- **vegetable**
[N-COUNT-U2] A **vegetable** is part of an edible plant that doesn't have seeds.
- **ventilation**
[N-UNCOUNT-U9] **Ventilation** is the circulation of air through an enclosed space.
- **vitamin**
[N-COUNT-U10] A **vitamin** is an organic substance in food, such as thiamine, that the body uses to stay healthy.

- **waste management**
[N-UNCOUNT-U11] **Waste management** is the process of storing and removing animal waste.
- **water cycle**
[N-COUNT-U5] The **water cycle** is the continuous process of water changing form and moving on, in, and over the earth.
- **water supply**
[N-UNCOUNT-U1] A **water supply** is the amount of clean water in one area.
- **wool**
[N-UNCOUNT-U3] **Wool** is animal hair that you can make into clothes.
- **yield**
[N-COUNT-U8] **Yield** is the amount or quantity of a crop that is produced.

Book 2

- **accelerated lambing**
[N-UNCOUNT-U5] **Accelerated lambing** is the act of breeding ewes more than once per year.
- **acidity**
[N-UNCOUNT-U9] **Acidity** is the concentration of acid in soil.
- **adjusting production**
[N-UNCOUNT-U15] **Adjusting production** is the process of limiting the production of a product to only what is needed for immediate sales.
- **amendment**
[N-COUNT-U12] An **amendment** is a substance added to soil to improve it.
- **ammonia**
[N-UNCOUNT-U10] **Ammonia** is a chemical made from Nitrogen and Hydrogen, created during fixation.
- **antibiotics**
[N-PLURAL-U1] **Antibiotics** are drugs that are used to kill harmful bacteria.
- **apiary**
[N-COUNT-U7] An **apiary** is a place where bees are kept.
- **beef**
[N-UNCOUNT-U1] **Beef** is the name for the meat derived from cattle.
- **beehive frame**
[N-COUNT-U7] A **beehive frame** is a structure that is constructed to house a bee colony.

- **beesuit**
[N-COUNT-U7] A **beesuit** is a protective garment that is worn by beekeepers.
- **bridling**
[N-UNCOUNT-U6] **Bridling** is the act of training a horse to accept a bit in its mouth.
- **broadcast seeding**
[N-UNCOUNT-U12] **Broadcast seeding** is a way of scattering seeds evenly over a large area of land by hand or mechanically, often followed by raking to cover the seeds.
- **broiler**
[N-COUNT-U3] A **broiler** is a medium-sized chicken sold in the US that is larger than a fryer but smaller than a roaster.
- **broodmare**
[N-COUNT-U6] A **broodmare** is a female horse that is used for breeding.
- **calf**
[N-COUNT-U4] A **calf** is a baby cow.
- **cattle**
[N-COUNT-U1] **Cattle** are the cows and bulls raised on a farm or ranch for beef or milk.
- **chick**
[N-COUNT-U3] A **chick** is a baby chicken.
- **clay**
[N-UNCOUNT-U8] **Clay** is a type of sticky soil used to make pots, bricks, or tiles.
- **climate**
[N-COUNT-U13] A **climate** is a set of weather conditions that is usual in a particular area.
- **coarse-grained**
[ADJ-U8] If soil is **coarse-grained**, it consists of relatively large particles.
- **cold smoke aerosol**
[N-COUNT-U7] A **cold smoke aerosol** is a pressurized container filled with a smoky substance that pacifies bees.
- **colony**
[N-COUNT-U7] A **colony** is an area where a group of bees live.
- **composition**
[N-UNCOUNT-U8] **Composition** is the parts that make something what it is.
- **confinement lamb production**
[N-UNCOUNT-U5] **Confinement lamb production** is a method of raising sheep in which the sheep are kept indoors.

- **contour-farming**
[N-UNCOUNT-U11] **Contour-farming** is when farmers plough rows perpendicular to the slope of a hill so that water does not as easily erode soil.
- **cost of production**
[N-UNCOUNT-U14] **Cost of production** is the sum of all costs required to produce something, including labor, land and materials.
- **cover crop**
[N-COUNT-U11] A **cover crop** is planted to increase the nutrients in the soil and to prevent soil from washing away.
- **crop rotation**
[N-UNCOUNT-U11] **Crop rotation** is the process by which farmers grow different crops at different times to replenish the soil.
- **dairy**
[N-UNCOUNT-U4] **Dairy** is a classification of food that includes all items made from milk.
- **decline**
[N-UNCOUNT-U15] **Decline** is the process of becoming less or worse.
- **decomposer**
[N-COUNT-U10] A **decomposer** is an organism or process that turns dead organic matter into chemical nutrients.
- **dentrification**
[N-UNCOUNT-U10] **Dentrification** is the process by which nitrogen is removed or lost from nitrogen compounds like nitrates and nitrites.
- **direct marketing**
[N-UNCOUNT-U14] **Direct marketing** is a method of sales in which the producer sells products directly to consumers.
- **distribute**
[V-T-U5] To **distribute** something is to sell it.
- **dynamic space**
[N-COUNT-U2] A **dynamic space** is the amount of space required to contain a sow's body in an enclosure and allow her to move.
- **emergence**
[N-UNCOUNT-U12] **Emergence** is the percentage of seeds that sprout into seedlings.
- **erosion**
[N-UNCOUNT-U11] **Erosion** occurs when wind or water removes the soil from a particular area and leaves it somewhere else.

- **eutrophication**
[N-UNCOUNT-U10] **Eutrophication** is the process by which substances like nitrates permeate fresh bodies of water.
- **ewe**
[N-COUNT-U5] A **ewe** is a female sheep.
- **fallow**
[ADJ-U15] If a field is **fallow**, it does not have crops planted in it.
- **farrow-to-finish farm**
[N-COUNT-U2] A **farrow-to-finish farm** is a farm that breeds and raises pigs from birth until they reach market weight.
- **farrow-to-nursery farm**
[N-COUNT-U2] A **farrow-to-nursery farm** is a farm that breeds and raises pigs that are then transferred to finishing farms to reach market weight.
- **feed conversion efficiency**
[N-UNCOUNT-U1] **Feed conversion efficiency** is a measure of how efficiently an animal converts feed into body mass.
- **feed ration**
[N-COUNT-U1] A **feed ration** is a selected amount of food that is enough for an animal's daily needs.
- **feeder lamb**
[N-COUNT-U5] A **feeder lamb** is a lamb that is sold for finishing.
- **feedlot**
[N-COUNT-U1] A **feedlot** is a large enclosed area for feeding a large number of cattle before processing.
- **fertilizer**
[N-COUNT-U12] Any substance added to soil that improves its fertility is called a **fertilizer**.
- **fine-grained**
[ADJ-U8] If a soil is **fine-grained**, it consists of relatively tiny particles.
- **finishing**
[N-UNCOUNT-U5] **Finishing** is the act of feeding livestock and preparing it for slaughtering.
- **fixation**
[N-UNCOUNT-U10] During **fixation**, nitrogen in the air is converted into ammonia.
- **flock**
[N-COUNT-U5] A **flock** is a large group of sheep.

- **foal**
[N-COUNT-U6] A **foal** is a horse that is younger than one year.
- **food and fiber industry**
[N-UNCOUNT-U15] The **food and fiber industry** is a network of farmers, distributors, retailers and other organizations that contribute to the production of food and other products.
- **foreign trade enhancement**
[N-UNCOUNT-U15] **Foreign trade enhancement** is the practice of improving systems and technologies for trade with other countries.
- **free-range**
[N-UNCOUNT-U3] If a chicken is **free-range**, it is able to roam around outside.
- **grade**
[N-COUNT-U1] The **grade** of beef is a measure of its quality.
- **grain**
[N-COUNT-U8] A **grain** is a very small seed of cereal.
- **grass-fed**
[ADJ-U1] If cattle are **grass-fed**, they primarily eat grass foraged from a pasture or fields.
- **grassway**
[N-COUNT-U11] A **grassway** is one form of perimeter runoff control that appears between rows of crops.
- **green manure**
[N-UNCOUNT-U11] **Green manure** is a name for cover crops that farmers plant when they want to add Nitrogen to the soil.
- **growth hormone**
[N-COUNT-U1] A **growth hormone** is a chemical that increases cattle's rate of growth or milk production.
- **halter breaking**
[N-UNCOUNT-U6] **Halter breaking** is the act of training a horse to be led by a halter that is placed on its head.
- **hardiness zone**
[N-COUNT-U13] A **hardiness zone** is a defined geographical area with a climate that supports a particular set of plant life.
- **hatchery**
[N-COUNT-U3] A **hatchery** is a place that provides artificial conditions for hatching eggs.

- **heifer**
[N-COUNT-U4] A **heifer** is a young cow that has not yet given birth to a calf.
- **hen**
[N-COUNT-U3] A **hen** is an adult female chicken.
- **herbicide**
[N-UNCOUNT-U12] **Herbicides** are substances used to kill plants or slow down their growth.
- **herd**
[N-COUNT-U1] A **herd** is a group of cattle.
- **highly-organic**
[ADJ-U8] If a soil is **highly-organic**, it largely consists of organic material as opposed to non-organic mineral material.
- **hog**
[N-COUNT-U2] A **hog** is a pig that has grown large enough to be eaten.
- **Holstein**
[N-COUNT-U4] A **Holstein** is a breed of cattle that dairy farmers use.
- **homogenize**
[V-T-U4] To **homogenize** is to mix milk so that the cream is completely blended into it.
- **honey**
[N-UNCOUNT-U7] **Honey** is a sweet substance that is made by bees.
- **honeycomb**
[N-COUNT-U7] A **honeycomb** is a structure of six-sided cells that is constructed by bees within their hives.
- **humidity**
[N-UNCOUNT-U13] **Humidity** is the amount or measurement of moisture in the air.
- **indirect marketing**
[N-UNCOUNT-U14] **Indirect marketing** is a method of sales in which the producer sells products to a retailer or other party who then sells to consumers.
- **intensive farming**
[N-UNCOUNT-U3] **Intensive farming** is a method of raising chickens in a climate-controlled enclosed area.
- **keyline design**
[N-COUNT-U11] **Keyline design** is used to maximize the water resources for one piece of land.
- **lambing period**
[N-COUNT-U5] A **lambing period** is the time during which ewes produce lambs.

- **land degradation**
[N-UNCOUNT-U11] **Land degradation** occurs when human interaction with the land causes negative effects, like floods and fires.
- **last frost**
[N-UNCOUNT-U13] **Last frost** is the last time during the year that the temperature gets low enough to kill plants in a particular region. It usually indicates the beginning of the growing season.
- **layer**
(as in bird raised to lay eggs) [N-COUNT-U3] A **layer** is a hen that is used to produce eggs.
- **lime**
[N-UNCOUNT-U9] **Lime** is a white, alkaline substance used in farming that is made by crushing shells or limestone.
- **liquid smoke**
[N-UNCOUNT-U7] **Liquid smoke** is a substance made from mixing smoke with water. It is used to pacify bees.
- **litter**
[N-COUNT-U2] A **litter** is a group of baby pigs born together.
- **litter**
[N-UNCOUNT-U3] **Litter** is the manure and wood shaving waste produced by a chicken.
- **long-range forecast**
[N-UNCOUNT-U13] A **long-range forecast** is a prediction of weather conditions more than ten days in advance.
- **mare**
[N-COUNT-U6] A **mare** is a female horse.
- **market demand**
[N-UNCOUNT-U15] **Market demand** is the total demand for a particular product in a particular area or market.
- **market slaughter lamb**
[N-COUNT-U5] A **market slaughter lamb** is a lamb that is sold to be slaughtered.
- **market weight**
[N-UNCOUNT-U1] **Market weight** is how much cattle should weigh before they are processed into beef.
- **milk herd**
[N-COUNT-U4] A **milk herd** is a group of cows that produce milk.
- **milk pipeline**
[N-COUNT-U4] A **milk pipeline** is a system at a dairy that transfers milk from a cow into cooling and storage containers.

- **milking parlor**
[N-COUNT-U4] A **milking parlor** is a special area in a dairy where cows are milked.
- **mineralization**
[N-UNCOUNT-U10] **Mineralization** is the process where nitrogen from organic matter is converted into ammonium.
- **mulch**
[N-UNCOUNT-U13] **Mulch** is a material that is spread over the ground to protect plants and stop unwanted plants from growing.
- **nitrates**
[N-PLURAL-U10] **Nitrates** are chemical compounds that bacteria create from nitrites.
- **nitrites**
[N-PLURAL-U10] **Nitrites** are chemical compounds that bacteria create from ammonium.
- **Nitrogen Cycle**
[N-COUNT-U10] The **Nitrogen Cycle** is the set of processes by which nitrogen is changed into chemical forms and travels through various mediums, including soil, water, and air.
- **nitrous oxide**
[N-UNCOUNT-U10] **Nitrous oxide** is a product of denitrification, and its levels have risen significantly with the increased use of fertilizers.
- **nutrient depletion**
[N-UNCOUNT-U11] **Nutrient depletion** is the process where nutrients are taken out of the soil by plants or animals.
- **nutrient-poor**
[ADJ-U10] If soil is **nutrient-poor**, it does not have the right amount of minerals and other nutrients to produce healthy crops.
- **pasteurize**
[V-T-U4] To **pasteurize** is to use a special process of heating milk to kill bacteria.
- **peat**
[N-UNCOUNT-U8] **Peat** is a material made from decaying plants that can be added to soil to help plants grow.
- **perimeter runoff control**
[N-UNCOUNT-U11] **Perimeter runoff control** is the use of things like plants to prevent water from eroding the soil.
- **perpendicular**
[ADJ-U11] If a line is **perpendicular**, it forms a right angle to a line or plane.

- **pH value**
[N-COUNT-U9] The **pH value** is a measure between 0 and 14 that indicates the acidity ($\text{pH} < 7.0$) or alkalinity ($\text{pH} > 7.0$) of a substance.
- **plant density**
[N-COUNT-U12] **Plant density** is the number of plants in a certain area.
- **poultry**
[N-UNCOUNT-U3] **Poultry** are birds raised on farm for eggs and/or meat.
- **precipitation**
[N-UNCOUNT-U13] **Precipitation** is rain, snow and other forms of water that fall from the sky.
- **preventative disease control**
[N-UNCOUNT-U6] **Preventative disease control** is a regimen of activities that are performed to avoid disease.
- **price floor**
[N-COUNT-U15] A **price floor** is a legal limit on how low the price of a product can be.
- **price support**
[N-UNCOUNT-U15] **Price support** is a method of maintaining a high price for a product.
- **pricing for competition**
[N-UNCOUNT-U14] **Pricing for competition** is the process of establishing a product's price based on prices that other sellers are using.
- **pricing for profit**
[N-UNCOUNT-U14] **Pricing for profit** is the process of establishing a product's price that will cover and exceed the cost of production.
- **pricing for value**
[N-UNCOUNT-U14] **Pricing for value** is the process of establishing a product's price that offers lower prices for larger quantities.
- **pricing strategy**
[N-COUNT-U14] A **pricing strategy** is the method a seller chooses for establishing a product's price.
- **primary breeder**
[N-COUNT-U3] A **primary breeder** is a person who breeds chickens used by others for egg production.
- **primary salinity**
[N-UNCOUNT-U9] **Primary salinity** is when salts get into the soil by natural processes, such as groundwater movement.

- **processing facility**
[N-COUNT-U1] A **processing facility** is a place where cattle are killed and butchered.
- **produce**
[N-UNCOUNT-U14] **Produce** is fresh, raw food like fruits and vegetables.
- **pullet**
[N-COUNT-U3] A **pullet** is a young hen under one year of age.
- **quota**
[N-COUNT-U15] A **quota** is a limit on the amount or number of a product that can be imported or exported.
- **rBST**
[ABBREV-U4] **rBST (Recombinant bovine somatotropin)** is an artificial growth hormone given to cows to increase milk production.
- **roaster**
[N-COUNT-U3] A **roaster** is the largest size of chicken sold in the US.
- **rooster**
[N-COUNT-U3] A **rooster** is an adult male chicken.
- **sacking out**
[N-UNCOUNT-U6] **Sacking out** is the act of training a horse to not fear objects that humans place on it, particularly blankets or sacks.
- **saddling**
[N-UNCOUNT-U6] **Saddling** is the act of training a horse to accept having a saddle placed on its back.
- **salinity**
[N-UNCOUNT-U9] **Salinity** is the concentration of salt in soil.
- **sand**
[N-UNCOUNT-U8] **Sand** is a type of soil made of very small pieces of rocks or minerals that is often found on the beach or in the desert.
- **seasonal market**
[N-COUNT-U5] A **seasonal market** is a periodic increase in demand for livestock.
- **secondary salinity**
[N-UNCOUNT-U9] **Secondary salinity** is when salts get into the soil from human activities such as from irrigation.
- **seeding rate**
[N-COUNT-U12] **Seeding rate** is the amount of seeds planted per hectare.

- **seeds per pound**
[N-UNCOUNT-U12] **Seeds per pound** is a measure of the number individual seeds in a pound of seeds.
- **seeds per square foot**
[N-UNCOUNT-U12] **Seeds per square foot** is the number of seeds planted in a square foot of land.
- **silt**
[N-UNCOUNT-U8] **Silt** is made when soil mixes with a body of water and then is deposited.
- **skep**
[N-COUNT-U7] A **skep** is a traditional beehive made from grass or straw.
- **smoker**
[N-COUNT-U7] A **smoker** is a device that produces smoke for the purpose of pacifying bees.
- **social space**
[N-UNCOUNT-U2] **Social space** is the amount of space required to allow a sow in an enclosure to socially interact with other sows.
- **sodicity**
[N-UNCOUNT-U9] **Sodicity** is the concentration of sodium in soil.
- **soil conservation**
[N-UNCOUNT-U11] **Soil conservation** is the act of maintaining soil so that it does not erode.
- **soil moisture**
[N-UNCOUNT-U13] **Soil moisture** is the amount of water contained in a particular region's soil.
- **soil temperature**
[N-UNCOUNT-U12] The temperature of the soil is called **soil temperature**.
- **sow**
[N-COUNT-U2] A **sow** is a female pig.
- **sow farm**
[N-COUNT-U2] A **sow farm** is a farm that raises female pigs for the purpose of producing baby pigs or piglets.
- **stall**
[N-COUNT-U6] A **stall** is a small partition inside a barn for an animal to live in.
- **stallion**
[N-COUNT-U6] A **stallion** is a male horse.
- **static space**
[N-UNCOUNT-U2] **Static space** is the amount of space required to contain a sow's body in an enclosure.

- **sulfur**
[N-UNCOUNT-U9] **Sulfur** is a chemical element with the symbol S that is typically yellow in color and has a powerful smell.
- **supply and demand**
[N-UNCOUNT-U14] **Supply and demand** is the relationship between the amount of a product that can be produced and the amount that consumers can or will buy.
- **surplus**
[N-COUNT-U15] A **surplus** is an amount or quantity of a product that exceeds the demand for that product.
- **swine**
[N-COUNT-U2] A **swine** is a domestic pig.
- **tariff**
[N-COUNT-U15] A **tariff** is a tax on products that are being imported to or exported from a country.
- **temperature**
[N-COUNT-U13] **Temperature** is the measurement of heat and/or cold.
- **texture**
[N-COUNT-U8] **Texture** is how something feels when touched.
- **top-bar hive**
[N-COUNT-U7] A **top-bar hive** is a beehive that has a suspended bar from which bees hang their honeycomb.
- **topsoil**
[N-UNCOUNT-U12] **Topsoil** is the top layer of the soil in which plants anchor most of their roots and from which they absorb most of their nutrients.
- **toxic**
[ADJ-U9] If something is **toxic**, it is harmful to life.
- **udder**
[N-COUNT-U4] An **udder** is the part of a cow that hangs from her belly and produces milk.
- **Unified Soil Classification System**
[N-UNCOUNT-U8] The **Unified Soil Classification System** is a method used to group soils into types based on their texture and composition.
- **vaccination schedule**
[N-COUNT-U6] A **vaccination schedule** is a planned administration of disease-preventing injections.

- **veil**
[N-COUNT-U7] A **veil** is a protective covering for the head and face that is worn by beekeepers.
- **windbreak**
[N-COUNT-U11] A **windbreak** is composed of tree barriers planted in a way that prevent the soil from eroding.

Book 3

- **abiotic**
[ADJ-U8] If something is **abiotic**, it is a non-living thing.
- **agricultural advisor**
[N-COUNT-U8] An **agricultural advisor** is a professional who provides advice and support to people working in agriculture.
- **air seeding**
[N-UNCOUNT-U13] **Air seeding** is a method of planting seeds that uses a machine to spread seeds with a flow of air.
- **analysis**
[N-COUNT-U15] An **analysis** is a careful study or examination.
- **animal performance assessment**
[N-COUNT-U15] An **animal performance assessment** is a test that examines the effects of biotech products on animals.
- **animal welfare**
[N-UNCOUNT-U1] **Animal welfare** is the health and well-being of animals.
- **antibiotic**
[N-COUNT-U2] An **antibiotic** is a drug that is used to kill bacteria.
- **audit trail document**
[N-COUNT-U14] An **audit trail document** is evidence that food or other farmland products came from an organic source.
- **automated bin management system**
[N-UNCOUNT-U13] **Automated bin management system** is a method for efficiently organizing farmland products.
- **auto-steer**
[ADJ-U13] If a vehicle is **auto-steer**, it moves through its designated area without requiring a person to steer it.
- **bacterial**
[ADJ-U7] If something is **bacterial** it has to do with bacteria.

- **balance of trade**
[N-UNCOUNT-U10] **Balance of trade** is the difference between the total value of a country's exports and the total value of its imports.
- **base temperature**
[N-COUNT-U6] A **base temperature** is the minimum temperature that will allow a plant to grow.
- **beginning stock**
[N-UNCOUNT-U11] **Beginning stock** is the amount of stock in a given commodity with which one begins the fiscal year.
- **biodiversity**
[N-UNCOUNT-U12] **Biodiversity** is the existence of a variety of plants on a particular area of land.
- **biological control**
[N-COUNT-U7] A **biological control** is an organism such as a predatory insect used for pest management.
- **biotech seed**
[N-COUNT-U15] A **biotech seed** is one that has been altered by genetic engineering.
- **biotechnology**
[N-UNCOUNT-U4] **Biotechnology** is a branch of biology that uses living things in applied technology fields such as engineering or medicine.
- **biotic**
[ADJ-U8] If something is **biotic**, it is living.
- **blight**
[N-UNCOUNT-U7] **Blight** is a disease that kills plants.
- **body length**
[N-COUNT-U1] **Body length** is the span from an animal's head to its rear.
- **brown**
[V-I-U8] To **brown** is to become brown due to lack of water, too much heat, or disease.
- **burn-down herbicide**
[N-COUNT-U5] A **burn-down herbicide** is a chemical used to kill weeds at the time a crop is planted.
- **carryover**
[N-UNCOUNT-U11] **Carryover** is what remains of a previous year's stock and the current year's production after total inventories have been depleted by use.

- **certifier**
[N-COUNT-U14] A **certifier** is someone who confirms that clients are meeting standards they agree to meet to be considered organic.
- **change**
[N-COUNT-U11] **Change** is a difference occurring over time, as in a change in position, appearance, or value.
- **chute score**
[N-COUNT-U1] A **chute score** is the subjective evaluation of how well an animal tolerates being forced through a chute.
- **cloning**
[N-UNCOUNT-U4] **Cloning** is the process of copying a biological organism or part of that organism.
- **commingle**
[V-I-U14] To **commingle** is to be mixed or sharing space.
- **commodity**
[N-COUNT-U11] A **commodity** is anything of monetary value to be bought sold or traded in an economic system.
- **compliance**
[N-UNCOUNT-U14] **Compliance** is the act of following regulations.
- **compost**
[N-UNCOUNT-U12] **Compost** is decaying plant material that is used as a soil amendment.
- **conditioning**
[N-UNCOUNT-U1] **Conditioning** is the act of altering an animal's behavior and temperament.
- **conservation tillage**
[N-UNCOUNT-U5] **Conservation tillage** is any practice that reduces water and soil loss associated with conventional tillage.
- **consumption**
[N-UNCOUNT-U3] **Consumption** is the processes of taking food into the body through the mouth.
- **contamination**
[N-UNCOUNT-U14] **Contamination** is when an undesirable substance mixes with a product to make it impure.
- **conventional seed**
[N-COUNT-U15] A **conventional seed** is one that has not been altered by genetic engineering.

- **conventional tillage**
[N-UNCOUNT-U5] **Conventional tillage** is the standard way of mixing and turning the soil to prepare for planting.
- **crop residue**
[N-COUNT-U5] **Crop residue** is the remainder of plants left in the field after farmers harvest their crops.
- **crop rotation**
[N-UNCOUNT-U5] **Crop rotation** is the process of growing different types of crops one after the other on the same space of land to improve soil quality.
- **crop system**
[N-UNCOUNT-U5] **Crop system** is the method a farmer uses to grow crops, such as conventional or conservation tillage.
- **crowd pen**
[N-COUNT-U1] A **crowd pen** is a fenced area that is used to herd animals through a squeeze chute.
- **debt**
[N-UNCOUNT-U9] **Debt** is the money that a person owes to a bank or other lender.
- **deworming**
[N-UNCOUNT-U2] **Deworming** is the act of killing or removing worms.
- **diagnose**
[V-T-U2] To **diagnose** an animal is to determine what is causing the animal's health problems.
- **diversify**
[V-I-U5] To **diversify** is to increase the different types of crops produced.
- **drip irrigation system**
[N-COUNT-U13] A **drip irrigation system** is a set of devices that drips water slowly over the roots of the plants.
- **drought resistance**
[N-UNCOUNT-U15] **Drought resistance** refers to plants, seeds and crops which can withstand extremely dry conditions.
- **economic sustainability**
[N-UNCOUNT-U12] **Economic sustainability** is the state of being able to continue production with consistent profits and resources.
- **elevation**
[N-COUNT-U6] **Elevation** is the height of an area of land relative to the level of the ocean.

- **ending stock**
[N-UNCOUNT-U11] **Ending stock** is the same as carryover stock, which is what remains of the previous year's stocks and the current year's production, after total inventories have been used up.
- **export**
[N-COUNT-U10] An **export** is a product that a nation provides to other nations in international trade.
- **export dependent**
[ADJ-U10] If a nation or industry is **export dependent** it relies more upon what it sells internationally than what it sells domestically.
- **expression**
[N-COUNT-U4] **Expression** is the process by which genes produce traits in an organism.
- **fallow**
[ADJ-U5] If a field is **fallow**, it does not have any crops growing on it.
- **farm cash receipts**
[N-COUNT-U9] **Farm cash receipts** include the cash income resulting from the direct sale of farm products plus government subsidies.
- **feed costs**
[N-COUNT-U9] **Feed costs** are the expenses associated with providing feed to livestock.
- **feed grains**
[N-PLURAL-U3] **Feed grains** are grains that are grown for livestock to eat such as corn, sorghum, or oats.
- **feed-to-food**
[ADJ-U3] If a process is **feed-to-food**, it involves growing grain to feed to animals in order to produce meat for human consumption.
- **field activity log**
[N-COUNT-U14] A **field activity log** is a document in which producers record all of the operations performed in their fields.
- **field pattern**
[N-COUNT-U8] A **field pattern** is the regular and repeated way that a problem occurs in a field which is used to diagnose a problem.
- **fixed cash expense**
[N-COUNT-U9] A **fixed cash expense** is a cost that generally does not change, such as insurance, interest or rent.
- **flight zone**
[N-COUNT-U1] A **flight zone** is an area in which a human's presence will cause an animal to move away.
- **flighty**
[ADJ-U1] If an animal is **flighty**, it is prone to run away.
- **food grains**
[N-PLURAL-U3] **Food grains** are grains that are grown for humans to eat such as wheat, rice, or corn.
- **freeze protection**
[N-UNCOUNT-U6] **Freeze protection** is the act of preventing plants from freezing.
- **fungal**
[ADJ-U7] If something is **fungal** it has to do with fungi.
- **fungicide**
[N-COUNT-U7] A **fungicide** is a chemical that kills fungi.
- **futures market**
[N-COUNT-U11] A **futures market** is a hub of financial exchange where contracts are bought and sold for the purchase of commodities at some specified price and time in the future.
- **gene**
[N-COUNT-U4] A **gene** is segment of DNA that determines which traits are inherited by offspring from their parents.
- **gene enhancement**
[N-UNCOUNT-U4] **Gene enhancement** is the use of genetic engineering to produce desired traits in an organism beyond what is considered normal.
- **genetic engineering**
[N-UNCOUNT-U4] **Genetic engineering** is the act of combining genetic material from two or more organisms to produce artificial changes in genes.
- **genetically modified organism (GMO)**
[N-COUNT-U15] A **genetically modified organism (GMO)** is an organism that was produced through genetic engineering.
- **GPS**
[N-ABBREV-U13] **GPS (Global Positioning System)** is a navigation system that can identify an exact location on the Earth.

- **greenhouse**
[N-COUNT-U6] A **greenhouse** is a structure that is designed to retain solar energy for plant growth.
- **gross farm revenue**
[N-UNCOUNT-U9] **Gross farm revenue** is the total of all income a farm receives from its normal business activities.
- **growing degree day**
[N-COUNT-U6] A **growing degree day** is a measure of the amount of heat that a plant will receive each day in a particular area.
- **growing season**
[N-COUNT-U6] A **growing season** is the period of the year during which plants grow.
- **handling**
[N-UNCOUNT-U1] **Handling** is the act of herding and caring for animals.
- **heater**
[N-COUNT-U6] A **heater** is a device that generates heat by consuming fuel.
- **herbicide**
[N-COUNT-U7] A **herbicide** is a chemical that kills weeds.
- **herbicide resistance**
[N-UNCOUNT-U15] **Herbicide resistance** refers to plants, crops and seeds which can withstand the application of herbicides.
- **high**
[N-COUNT-U11] A **high** is a price value up from what it was at some indicated point in time.
- **hoop house**
[N-COUNT-U6] A **hoop house** is a temporary structure featuring a curved plastic roof that is designed to hold in heat for plant growth.
- **import**
[N-COUNT-U10] An **import** is a product that a nation receives from other nations in international trade.
- **import dependent**
[ADJ-U10] If a country or industry is **import dependent** it relies upon goods from other countries to operate effectively.
- **index**
[N-COUNT-U11] An **index** is a method or instrument of measuring a specific part of the stock market to reflect market capitalization of its components.

- **inedible**
[ADJ-U3] If something is **inedible** it cannot be eaten.
- **inefficient**
[ADJ-U3] If something is **inefficient**, it wastes energy.
- **infectious**
[ADJ-U2] If a disease is **infectious**, it is easily spread.
- **insect resistance**
[N-UNCOUNT-U15] **Insect resistance** refers to plants, seeds and crops which can withstand the damages of insects.
- **insecticide**
[N-COUNT-U2] An **insecticide** is a chemical that is toxic to insects.
- **inspector**
[N-COUNT-U14] An **inspector** is someone who examines farm facilities, crops, and animals to verify compliance with organic codes.
- **intercropping**
[N-UNCOUNT-U12] **Intercropping** is the process of planting two or more crops close to each other.
- **interest payment**
[N-COUNT-U9] An **interest payment** is the money paid to a lender above the amount that has been borrowed.
- **international trade**
[N-UNCOUNT-U10] **International trade** is the exchange of products and services across international borders.
- **land use**
[N-UNCOUNT-U3] **Land use** is the human transformation of the environment to make agricultural or living areas.
- **last frost date**
[N-COUNT-U6] The **last frost date** is the last day in spring during which a frost may occur.
- **lethargy**
[N-UNCOUNT-U2] **Lethargy** is a condition of extreme weariness.
- **lice**
[N-PLURAL-U2] **Lice** are a type of parasitic insect.
- **livestock**
[N-UNCOUNT-U3] **Livestock** are animals that are raised for food, labor, or to make a product such as wool.

- **loan**
[N-COUNT-U9] A **loan** is money that a person borrows from a bank or other lender.
- **low**
[N-COUNT-U11] A **low** is a price value down from what it was at some indicated point in time.
- **manure**
[N-UNCOUNT-U3] **Manure** is the solid waste produced by livestock often used as fertilizer.
- **material inputs**
[N-COUNT-U14] **Material inputs** are the supplies used in the production of crops or the raising of livestock.
- **mean temperature**
[N-COUNT-U6] A **mean temperature** is the average temperature in an area.
- **mechanized**
[ADJ-U13] If something is **mechanized**, it is operated by a machine instead of a person.
- **monitor**
[V-T-U2] To **monitor** something is to check it regularly, looking for problems.
- **monoculture**
[N-UNCOUNT-U12] **Monoculture** is the farming of only one crop on a particular area of land.
- **mulching**
[N-UNCOUNT-U7] **Mulching** is the process of cutting plants into small pieces usually to put on the ground as a cover to hold in moisture.
- **net farm income**
[N-UNCOUNT-U9] **Net farm income** is the total gross farm income minus all expenses.
- **nitrogen efficiency**
[N-UNCOUNT-U15] **Nitrogen efficiency** is the ability of a plant to use little nitrogen and grow to its full potential.
- **noncash expense**
[N-COUNT-U9] A **noncash expense** is a cost not due to cash spending, such as amortization, depletion of supply, or depreciation.
- **non-renewable resource**
[N-COUNT-U12] A **non-renewable resource** is something that exists in fixed quantities and cannot be reproduced.
- **off-farm impact**
[N-UNCOUNT-U12] **Off-farm impact** is the effect of farming materials and actions on areas other than the farm.

- **open**
[V-T-U11] To **open** a stocks trading market is to begin it for the day.
- **organic**
[ADJ-U14] If food is **organic**, it is produced without chemical fertilizers or pesticides.
- **organic integrity**
[N-UNCOUNT-U14] **Organic integrity** is a verification that a product is organic and not contaminated.
- **organic system plan**
[N-COUNT-U14] An **organic system plan** is a written statement which describes the organic methods a producer will use.
- **overplanting**
[N-UNCOUNT-U13] **Overplanting** is the act of planting too many seeds in an area.
- **overwatering**
[N-UNCOUNT-U13] **Overwatering** is the act of giving plants more water than they need.
- **parasite**
[N-COUNT-U2] A **parasite** is an organism that lives on or in another organism.
- **pathogen**
[N-COUNT-U7] A **pathogen** is any organism that causes illness or disease.
- **pest management**
[N-UNCOUNT-U7] **Pest management** is the practice of preventing, suppressing, or destroying organisms that harm crops.
- **pesticide**
[N-COUNT-U7] A **pesticide** is a chemical that kills insects and other pests harmful to crops.
- **photoperiod**
[N-COUNT-U6] A **photoperiod** is the amount of time each day that a plant is exposed to light.
- **point of balance**
[N-COUNT-U1] A **point of balance** is the spot on an animal's body that determines which way it will move in relation to the position of a herder.
- **polyculture**
[N-UNCOUNT-U5] **Polyculture** is a method of farming in which farmers grow several different crops together on the same piece of land.
- **prohibition**
[N-UNCOUNT-U4] **Prohibition** is the act of forbidding something.

- **quota**
[N-COUNT-U10] A **quota** is trade restriction by which a government limits the amount or number of goods imported into a country.
- **regulation**
[N-COUNT-U4] A **regulation** is something that limits or controls something else.
- **respiration**
[N-UNCOUNT-U2] **Respiration** is the act of breathing.
- **restraint**
[N-COUNT-U1] A **restraint** is a device that is used to restrict movement.
- **roughage**
[N-UNCOUNT-U3] **Roughage** is tough plant material that animals, but not humans, can eat.
- **sanitize**
[V-T-U7] To **sanitize** is to clean something so that no bacteria remain.
- **self-propelled**
[ADJ-U13] If something is **self-propelled**, it moves by its own power.
- **site selection**
[N-UNCOUNT-U6] **Site selection** is the act of choosing an area to plant crops in.
- **smart irrigation control**
[N-UNCOUNT-U13] **Smart irrigation control** is a system for watering plants that adjusts watering based on environmental conditions.
- **societal concern**
[N-COUNT-U4] A **societal concern** is a thought about the potentially negative effects of new technologies and their applications which is prevalent in the minds of many people.
- **soil amendment**
[N-COUNT-U12] A **soil amendment** is a material added to soil to improve plant growth.
- **spring wheat**
[N-UNCOUNT-U5] **Spring wheat** is a type of wheat that farmers plant in spring and harvest in late summer or early fall.
- **squeeze chute**
[N-COUNT-U1] A **squeeze chute** is a narrow-fenced passage designed for passing animals through, in single file.
- **stippled**
[ADJ-U8] If a plant's leaves are **stippled**, they are covered with many little colored dots.

- **stocks-to-use ratio**
[N-COUNT-U11] A **stocks-to-use ratio** is the carryover stock divided by the total use.
- **stunted**
[ADJ-U8] If a plant is **stunted**, it is not growing as large as it should.
- **suppression**
[N-UNCOUNT-U7] **Suppression** is the act of reducing the amount of a pest so that it is no longer a threat.
- **sustainable**
[ADJ-U12] If something is **sustainable**, it can be used or continued for a long time without running out of resources.
- **symptom**
[N-COUNT-U8] A **symptom** is change in a plant or animal that indicates the presence of disease.
- **symptom pattern**
[N-COUNT-U8] A **symptom pattern** is the regular and repeated way that symptoms occur in a plant.
- **symptomology key**
[N-COUNT-U8] A **symptomology key** is a tool that contains potential causes of symptoms that is used in diagnosing a problem.
- **systems perspective**
[N-COUNT-U12] A **systems perspective** is a broad view of how farming practices affect people and the environment throughout each step of the production process.
- **tariff**
[N-COUNT-U10] A **tariff** is a fee applied by a national government on the import of goods in order to aid domestic industries.
- **technology**
[N-UNCOUNT-U13] **Technology** is the use of science to create machines or other items that increase speed and productivity.
- **temperament**
[N-COUNT-U1] **Temperament** is an animal's level of emotional stability.
- **tick**
[N-COUNT-U2] A **tick** is a type of parasitic arachnid.
- **total production expenses**
[N-PLURAL-U9] **Total production expenses** are the combined expenses of money, time, and labor used in producing a product.

- **trade surplus**
[N-COUNT-U10] A **trade surplus** is a positive balance of trade that occurs when the total value of a country's exports exceeds the value of its imports.
- **trait**
[N-COUNT-U15] A **trait** is a genetic characteristic.
- **transgenic**
[ADJ-U4] If a plant or animal is **transgenic**, it is has one or more genes artificially introduced from another plant or animal.
- **vaccination**
[N-COUNT-U2] A **vaccination** is an injection that gives an animal immunity to a disease.
- **value**
[N-UNCOUNT-U11] **Value** is how much something is worth.
- **veterinarian**
[N-COUNT-U2] A **veterinarian** is a doctor who specializes in animal medicine.
- **weed**
[N-COUNT-U7] A **weed** is an unwanted wild plant that interferes with crops growing in a field.

- **weed map**
[N-COUNT-U7] A **weed map** is a diagram showing the location of weeds that is used for planning a weed management program.
- **wilt**
[V-I-U8] (Of plants) To **wilt** is to grow weak and droop.
- **winter wheat**
[N-UNCOUNT-U5] **Winter wheat** is a type of wheat that farmers plant in the fall and harvest in spring or summer.
- **World Trade Organization (WTO)**
[N-UNCOUNT-U10] The **World Trade Organization (WTO)** is a global organization that oversees trade interactions between its participating nations with the intention of fostering negotiations and settling disputes.
- **yield enhancement**
[N-UNCOUNT-U15] **Yield enhancement** is an increase in the size of a harvest.
- **zero tillage**
[N-UNCOUNT-U5] **Zero tillage** is a technique for growing crops without tilling the soil to improve soil moisture and reduce erosion

Audio Files for Occupation Agricultural Technologies and Landscape

All audio files accompanying the resources proposed for application for teaching foreign language for the occupation “Agricultural Technologies and Landscape” are freely available at the Resource centres equipped under the *Curriculum Development in Vocational Education and Training Schools* Project.

