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FARMING THE FUTURE

Extra
Exercises



MODULE 1 OUR WORLD'S HEALTH

Unit A – Weather and Climate

Fila A

COMPREHENSION

1. Match the two parts of the sentences.

1. Mediterranean climate
2. Tropical wet and dry climate
3. Subarctic climate
4. Icecap climate
5. Semi-arid climate
6. Marine west coast climate

- a. has an extremely cold winter and a short, cool to mild summer.
- b. is typically suitable for growing fruit trees and vines.
- c. has a summer, a winter and sometimes abundant rains.
- d. has a dry season which is longer than the wet one.
- e. is the coldest and most extreme climate on our planet.
- f. experiences a summer, a winter and more rainfall than an arid climate.

1.; 2.; 3.; 4.; 5.; 6.

COMPREHENSION

2. Answer the questions.

1. What are seasons on Earth influenced by?
2. Why can snow be beneficial to plants?
3. Why do farmers use anti-hail nets?
4. What is global warming?
5. How do wind and water erosion contribute to desertification?
6. What is REDD?

COMPREHENSION

3. Tick the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. drought ☐ b. floods ☐ c. frost ☐ d. irrigation
.....
2. ☐ a. carbon dioxide ☐ b. oxygen ☐ c. nitrous oxide ☐ d. methane
.....
3. ☐ a. REDD ☐ b. CCS ☐ c. GHG ☐ d. biosequestration
.....
4. ☐ a. scrublands ☐ b. savannas ☐ c. grasslands ☐ d. forests
.....
5. ☐ a. warmer ocean temperatures ☐ b. glacier melting ☐ c. reforestation ☐ d. sea level rising
.....
6. ☐ a. reusing products ☐ b. increasing waste ☐ c. insulating walls ☐ d. carpooling
.....

SPEAKING

4. Prepare a short oral presentation (3-5 minutes) to explain the weather and the water cycle.

Fila B

COMPREHENSION

1. Match the two parts of the sentences.

1. Humid subtropical climate
2. Humid continental climate
3. Tundra climate
4. Highland climate
5. Tropical wet climate
6. Arid climate

- a. is typical of high mountain areas.
- b. has a very harsh winter and a cool summer.
- c. is generally characterized by the lack of regular seasons and very little or no rain.
- d. has one warm season and regular rainfall throughout the year.
- e. has four seasons, including a cold harsh winter.
- f. has a hot, humid summer which is longer than the mild winter.

1.; 2.; 3.; 4.; 5.; 6.

COMPREHENSION

2. Answer the questions.

1. What is meteorology a study of?
2. Why can intensive farming lead to desertification?
3. What are greenhouse gases considered to be responsible for?
4. Why does deforestation contribute to climate change?
5. What does the term desertification refer to?
6. On whom does the Kyoto protocol place the main obligations?

COMPREHENSION

3. Circle the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. condensation ☐ b. evaporation ☐ c. insulation ☐ d. precipitation
.....
2. ☐ a. coal ☐ b. oil ☐ c. natural gas ☐ d. wind
.....
3. ☐ a. afforestation ☐ b. sea level rising ☐ c. glacier melting ☐ d. stronger hurricanes
.....
4. ☐ a. biking ☐ b. buying seasonal food ☐ c. increasing waste ☐ d. recycling
.....
5. ☐ a. over-farming ☐ b. overhearing ☐ c. overgrazing ☐ d. overpopulation
.....
6. ☐ a. mining ☐ b. wildfires ☐ c. tree canopy loss ☐ d. CCS
.....

SPEAKING

4. Prepare a short speech (3-5 minutes) to explain the impact of weather on agriculture. Detail ways in which farmers can protect their crops.

MODULE 1 OUR WORLD'S HEALTH

Unit B – Pollution

Fila A

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. Air pollution may lead to crop depletion. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Fish kills are caused by the accumulation of salts in the soil. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Dry deposition occurs when the sun's heat increases the temperature of bodies of water. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. The use of pesticides and other farming chemicals can cause soil pollution. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Only authorized facilities can recycle or dispose of hazardous waste. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Light pollution is caused by the sun's UV rays. | <input type="checkbox"/> | <input type="checkbox"/> |

COMPREHENSION

2. Write the word or words matching each definition.

1. Oxygen in water that is sustaining the lives of fish or other aquatic organisms.
.....
2. It may affect human health and sleep cycles.
.....
3. Used, impure water discharged from homes, farms and industries.
.....
4. Incineration or other high temperature waste treatment.
.....
5. It causes burning eyes, allergies and asthma.
.....
6. It occurs when precipitation moves acids from the atmosphere to the ground.
.....

VOCABULARY

3. Translate the following words into Italian.

1. Oil tanker
2. Separate waste collection
3. Pasture
4. Survival
5. Sulphur dioxide.....
6. Electric power

WRITING

4. Write a short essay (150 words) to explain the process of eutrophication.

Fila B

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. Lichens grow in areas where the air is clean. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Excessive nutrients in food can cause a phenomenon called eutrophication. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Volcanic eruptions are a natural cause of water pollution. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. MSW refers to waste produced by poor land management in developing countries. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. When a nuclear disaster occurs, radioactive pollution spreads. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Noise pollution can be dangerous to wildlife. | <input type="checkbox"/> | <input type="checkbox"/> |

COMPREHENSION

2. Write the word or words matching each definition.

1. Loud sounds that are harmful or annoying to humans and animals.

.....

2. It can corrode metals and deteriorate monuments.

.....

3. Water pollution decreases the quantity of this available to humans and animals.

.....

4. It is due to wide-scale agricultural practices, mainly irrigation.

.....

5. A person who works to protect the natural world from pollution.

.....

6. Accidental presence of pollutants in an environment.

.....

VOCABULARY

3. Translate the following words into Italian.

1. Railroad tracks
2. Illegal dumping
3. Leakage
4. Hearing loss
5. Degradation
6. Disruption

WRITING

4. Write a short essay (150 words) to explain what happened in Fukushima in 2011, detailing the effects of the event.

MODULE 2 THE PLANT WORLD

Unit A – Botany

Fila A

COMPREHENSION

1. Answer these questions about the history of botany.

1. Who coined the term “taxonomy”?
2. What is botany also called?
3. What happened during the Renaissance?
4. Regarding plants, what was Pliny the Elder’s main interest?
5. What is the name of the scientist who devised the concept of evolution?
6. Why is the type of plant classification introduced by Carl Linnaeus still famous today?

GRAMMAR

2. Translate the following sentences into English.

1. La botanica comprende anche lo studio di muschi, licheni, alghe, felci e funghi.
.....
2. Nehemiah Grew e Marcello Malpighi posero le basi dell’anatomia vegetale.
.....
3. L’invenzione della stampa nel XV secolo e l’uso diffuso del microscopio nel XVII secolo furono fondamentali per lo sviluppo della botanica.
.....
4. La fisiologia vegetale studia i processi vitali della pianta come la fotosintesi e la respirazione.
.....
5. La struttura e il comportamento dei geni e l’ereditarietà nelle piante sono studiate dalla genetica vegetale.
.....

VOCABULARY

3. Translate the following words into English.

1. Costitutore di varietà vegetali.....
2. Abbigliamento
3. Fitopatia.....
4. Batterio
5. Chimica
6. Gestione ambientale

WRITING

4. Write a short essay (200 words) using the following guidelines.

- Describe the branch of botany that you like most.
- Explain why you like it.
- Illustrate what you would do if you became a researcher in that field.

Fila B

COMPREHENSION

1. Answer these questions about the history of botany.

1. What is botany?
2. What does the term "taxonomy" refer to?
3. What is Pliny the Elder famous for?
4. Regarding plants, what did primitive men do?
5. When was progress in plant diseases made?
6. Who made the first steps in the studies of plant genetics?

GRAMMAR

2. Translate the following sentences into English.

1. Sfamare il mondo è uno degli obiettivi della botanica moderna.
.....
2. I ricercatori lavorano per sviluppare piante resistenti a fitopatie, parassiti e malerbe.
.....
3. Le piante possono aiutarci a far fronte ai cambiamenti ambientali e climatici?
.....
4. Si prevede che entro il 2050 la popolazione mondiale raggiungerà i 9 miliardi di persone.
.....
5. L'invenzione della stampa nel XV secolo e l'uso diffuso del microscopio nel XVII secolo furono fondamentali per lo sviluppo della botanica.
.....

VOCABULARY

3. Translate the following words into English.

1. Tessuto vegetale
2. Materia prima
3. Azoto
4. Sintomo
5. Raccolto.....
6. Utensile

WRITING

4. Write a short essay (200 words) using the following guidelines.

- Describe the challenges botany is facing today.
- Illustrate how botany can be used to deal with climate change.
- Explain what researchers are doing, or should do, in your opinion, to feed our hungry world.

MODULE 2 THE PLANT WORLD

Unit B – Plants

Fila A

COMPREHENSION

1. Choose the correct option to complete the sentences.

1. Mosses
 - ☐ a. are the only plants that move.
 - ☐ b. grow only if the air is clean.
 - ☐ c. depend on direct contact with surface water to live.
 - ☐ d. have underwater roots.
2. Vascular plants
 - ☐ a. have xylem and phloem.
 - ☐ b. include liverworts.
 - ☐ c. are also known as succulent plants.
 - ☐ d. are famous for their medicinal properties.
3. The term germination refers to
 - ☐ a. the emergence of weeds in a field.
 - ☐ b. the sprouting of a seedling from a seed.
 - ☐ c. the sprouting of a bud on a branch.
 - ☐ d. the process by which a flower develops into a seed.
4. The style is
 - ☐ a. a method to ensure that trees grow upright.
 - ☐ b. a long, tube-like structure leading from the stigma to the ovary in a flower.
 - ☐ c. the first root in the taproot system.
 - ☐ d. the portion of the ovary where seeds develop.
5. A cuticle is
 - ☐ a. a stem-like appendant attached to the stem at the node.
 - ☐ b. the water-conduction tissue in a stem.
 - ☐ c. the term used to refer to needle-like leaves in Gymnosperms.
 - ☐ d. a waxy coating which protects the leaf.
6. The species is characterized by
 - ☐ a. the “-aceae” ending.
 - ☐ b. the “phyta” ending.
 - ☐ c. two Latin names.
 - ☐ d. the “spermae” ending.

VOCABULARY

2. Translate the following words into Italian.

1. Pine cone.....
2. Coating.....
3. Shoot
4. Net-like.....
5. Short-lived
6. Celery

VOCABULARY

3. Fill in the table indicating the noun/nouns deriving from the verb, then translate it/them into Italian.

Verb	Noun/nouns	Italian translation
1. To synthesize		
2. To reduce (two nouns)		
3. To pollinate		
4. To develop		

VOCABULARY

4. Fill in the blanks.

The female part of a flower is called the **1.** It is made up of **2.**, style and ovary. The male parts are the **3.**, which are made up of the **4.** and the filament. The male reproductive cells are called **5.** They fertilize the **6.** inside the ovary. The ovary then becomes the **7.** while the fertilized **8.** becomes the **9.** The function of **10.** is to attract pollinators, while the **11.** at the base of the flower help protect the developing **12.**

Fila B

COMPREHENSION

1. Choose the correct option.

1. The floral parts of dicots are
 - ☐ a. in multiples of two.
 - ☐ b. in multiples of three.
 - ☐ c. in multiples of four or five.
 - ☐ d. in multiples of seven.
2. The term "Gymnosperm" comes from the Greek word *gymnospermos* and means
 - ☐ a. seedless.
 - ☐ b. seeded.
 - ☐ c. having seedlings.
 - ☐ d. naked seed.
3. An important function of plant roots is
 - ☐ a. to ensure the stem will receive more sunlight.
 - ☐ b. to attract underground pollinators.
 - ☐ c. to help prevent the plant being washed away.
 - ☐ d. to increase the surface woody tissue in a plant.
4. Photosynthesis takes advantage of
 - ☐ a. pollinators that help fertilize the plant.
 - ☐ b. the energy from the sun and the chlorophyll present in the plant.
 - ☐ c. the oxygen breathed in by the plant during the day.
 - ☐ d. glucose the plant finds in the ground.
5. Germination is affected by
 - ☐ a. light, water, oxygen and temperature.
 - ☐ b. dormancy, water, light and oxygen.
 - ☐ c. seed dispersal, oxygen, water and light.
 - ☐ d. glucose, oxygen, light and water.
6. The fruit is
 - ☐ a. the only edible part of the plant.
 - ☐ b. the part of the plant that produces glucose.
 - ☐ c. the part of the plant that germinates, creating a new plant.
 - ☐ d. the ripened ovary of the plant which contains the seeds.

VOCABULARY

3. Translate the following words into Italian.

- | | |
|--------------------|-----------------------|
| 1. Bundle | 4. Cucumber |
| 2. Waxy | 5. Aerial |
| 3. Leaf-like | 6. Breakthrough |

VOCABULARY

3. Fill in the table indicating the noun/nouns deriving from the verb, then translate it/them into Italian.

Verb	Noun/nouns	Italian translation
1. To breathe		
2. To enlarge		
3. To appear		
4. To absorb		

VOCABULARY

4. Fill in the blanks.

The **1.** is the first root produced from a seed in the **2.** system. When it is replaced by numerous roots of more or less **3.** size, we have a **4.** root system. A **5.** root, or prop root, develops on the **6.**

Typically stems have a cylindrical shape. The **7.** joins the stem at the **8.** The part of the stem between two **9.** is called an **10.** The stem-like appendage supporting the leaf is called a **11.** The pores on the leaf surface are called **12.**

MODULE 3 CARING FOR PLANTS

Unit A – Plant Nutrition

Fila A

COMPREHENSION

1. Fill in the table naming:

1. the types of sand textures			
2. the types of surface irrigation			
3. the types of crops which sprinkler irrigation is normally suitable for			
4. what can be applied to crops through fertigation			
5. fertilizers' primary micronutrients			
6. the most readily available types of manure			

COMPREHENSION

2. Answer the questions below.

1. What type of soil normally has adequate air infiltration and water movement?
2. How is water applied to crops in furrow irrigation?
3. Why are legumes used as green manure?
4. Why are mulches placed around plants?
5. What is chemigation?
6. What is sprinkler irrigation not recommended for? Why?
7. What are the main features of clayey soils?
8. What is the best soil texture for the growth of most agricultural crops?

VOCABULARY

3. Translate the following words into English.

- | | |
|-------------------------------------|---------------------|
| 1. Rame | 5. Zinco |
| 2. Architettura del paesaggio | 6. Ruota |
| | 7. Ammendante |
| 3. Molibdeno | 8. Duraturo |
| 4. Guscio..... | 9. Interrato |

SPEAKING

- #### 4. Prepare a short speech (3-5 minutes) describing what mulching is. Detail the advantages and disadvantages of plastic mulching.

Fila B

COMPREHENSION

1. Fill in the table naming:

1. fertilizers' secondary micronutrients			
2. the main types of crops which basin irrigation is suitable for			
3. the three classes of soil mineral portion			
4. the main types of organic fertilizers			
5. the other names for drip irrigation			
6. the main types of crops which furrow irrigation is suitable for			

COMPREHENSION

2. Answer the questions below.

1. What is water applied through in drip irrigation?
2. What is the main objective of sprinkler irrigation?
3. What is the best soil texture for the growth of most agricultural crops?
4. What is flood irrigation? What is it also called?
5. What do organic mulches turn into upon decomposition?
6. What are the main features of sandy soils?
7. What is soil organic matter made up of?
8. What are non-leguminous crops mainly used for?

VOCABULARY

3. Translate the following words into English.

- | | |
|-------------------|-------------------------------------|
| 1. Ghiaia..... | 6. Silicio |
| 2. Rame | 7. Architettura del paesaggio |
| 3. Cloro | |
| 4. Melanzana..... | 8. Sistema di tubazioni |
| 5. Ferro | 9. Corteccia |

SPEAKING

4. Prepare a short speech (3-5 minutes) about organic fertilizers.

MODULE 3 CARING FOR PLANTS

Unit B – Plant Protection

Fila A

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. Pesticides are synthetic products protecting crops from unwanted or noxious insects, rodents, or weeds. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Biological control agents are inspectors that control the correct application of pesticides. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Some researchers believe that the colony collapse disorder is caused by the use of certain pesticides. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. IPM programmes do not allow the use of chemical pesticides. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Pests that survive exposure to pesticides may develop pesticide resistance. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Non-selective herbicides are used by farmers who do not have specific application needs. | <input type="checkbox"/> | <input type="checkbox"/> |

VOCABULARY

2. Mention the items of clothing that must be worn when handling pesticides to protect the below body parts:

- head
- hands
- nose and lungs

VOCABULARY

3. What type of pesticide would you use to kill the following?

- mice.....
- moulds
- slugs
- viruses
- nematodes

VOCABULARY

4. Translate the following words into Italian.

- Safety
- To dispose of
- Shrinking
- Targeted spraying
- Leaflet.....
- Storage

WRITING

5. Write a short essay (200 words) to explain how integrated pest management works.

Fila B

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. Contact herbicides are more effective than systemic herbicides. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. It is said that systemic fungicides may cause plants to develop a resistance to their active principles. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Herbicides are typically used to kill monocot weeds only. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Biological control agents are inspectors that ensure that there are no pesticide spillages at the storage facility. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Seed treatments typically consist of chemicals which have antimicrobial or fungicidal properties. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Synthetic pesticides are used in both conventional and organic agriculture. | <input type="checkbox"/> | <input type="checkbox"/> |

VOCABULARY

2. Mention the items of clothing that must be worn when handling pesticides to protect the below body parts:

1. face
2. legs and feet
3. eyes

VOCABULARY

3. What type of pesticide would you use to kill the following?

1. mites.....
2. arthropods
3. weeds
4. snails
5. bacteria

VOCABULARY

4. Translate the following words into Italian.

1. Strictly
2. Safety data sheet
3. Prior to
4. Poisoning
5. Last resort
6. Spray drift

WRITING

5. Write a short essay (200 words) to explain how the biological control of pests works.

MODULE 4 HEALTHY EATING

Unit A – Life-sustaining Nutrients

Fila A

VOCABULARY

1. Translate the following words related to nutrition into English.

1. Sostanza nutriente
2. Integrale
3. Carboidrati
4. Tabella nutrizionale
5. Dose giornaliera consigliata
6. Colesterolo
7. Aminoacidi
8. Latticini

COMPREHENSION

2. Match the food with the main nutrient it contains.

1. Table salt
2. Potatoes
3. Broccoli
4. Trout
5. Nuts
6. Yellow peppers

- a. Vitamin K
- b. Vitamin A
- c. Proteins
- d. Complex carbohydrates
- e. Lipids
- f. Sodium

1.; 2.; 3.; 4.; 5.; 6.

COMPREHENSION

3. Tick the odd one out among a, b, c, or d, and give reasons why.

1. ☐ a. leucine ☐ b. methionine ☐ c. valine ☐ d. melatonin
.....
2. ☐ a. calories ☐ b. flavour ☐ c. servings per container ☐ d. total fat
.....
3. ☐ a. cotton candy ☐ b. lemon soda ☐ c. dried fruit ☐ d. chocolate chip cookies
.....
4. ☐ a. manganese ☐ b. sodium ☐ c. copper ☐ d. toxins
.....

COMPREHENSION

4. Answer the following questions:

1. What is the study of nutrition concerned with?
2. What are the major food groups?
3. What are the proportions of a balanced diet?
4. What are the benefits of a healthy diet?
5. What elements of your daily diet do you think you should replace with more healthy options? Explain the changes you would make.

Fila B

VOCABULARY

1. Translate the following words related to nutrition into English.

1. Composto organico
2. Liposolubile
3. Requisito dietetico
4. Grassi saturi
5. Potassio
6. Fibra alimentare.....
7. Digestione
8. Aumento di peso

COMPREHENSION

2. Match the food with the main nutrient it contains.

1. Barley
2. Salmon
3. Cod liver oil
4. Cabbage
5. Honey
6. Lentils

- a. Vitamin K
- b. Simple carbohydrates
- c. Proteins
- d. Vitamin A
- e. Fibre
- f. Unsaturated fats

1.; 2.; 3.; 4.; 5.; 6.

COMPREHENSION

3. Tick the odd one out among a, b, c, or d, giving reasons for your choice.

1. ☐ a. hydrogenation ☐ b. blood clotting ☐ c. energy production ☐ d. bone growth
.....
2. ☐ a. spinach ☐ b. margarine ☐ c. yogurt ☐ d. sardines
.....
3. ☐ a. dietary fibre ☐ b. water ☐ c. carbohydrates ☐ d. alcohol
.....
4. ☐ a. whole fruit ☐ b. oats ☐ c. white bread ☐ d. vegetable sticks
.....

COMPREHENSION

4. Answer the following questions:

1. How can proteins be included in one's diet?
2. What categories of nutrients are also referred to as "micronutrients" and why?
3. What are the functions performed by lipids and the advantages of a limited intake of these?
4. What are calories and why are they important for nutrition?
5. What elements of your daily diet do you think you should replace with more healthy options? Explain your changes.

MODULE 4 HEALTHY EATING

Unit B – From Farm to Fork

Fila A

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|---|--------------------------|--------------------------|
| 1. Nutritionists recommend the consumption of more butter. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Low-fat yogurt contains the same amounts of proteins, calcium, magnesium and vitamin B as full-fat yogurt. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. The cheesemaker must separate the milk solids from rennin. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Only processed foods can be fortified. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Dehydration allows the preservation of food for a very short time. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Eating chicken and vegetables increases an individual's carbon footprint. | <input type="checkbox"/> | <input type="checkbox"/> |

COMPREHENSION

2. Fill in the blanks.

1. implies heating foods at temperatures from 2. to 80° C for a set 3. of time.
- The three classes of chemical 4. used in foods are benzoates, 5. and 6.
- The principle of “one step 7. and one step back” applies to food 8.
9. programs such as HACCP mainly focus on 10. reduction.
- The fat in milk is 11. and can raise 12. levels in 13.

VOCABULARY

3. What do the following terms mean?

- UHT
- BHA
- HACCP

VOCABULARY

4. Write a definition for the following words:

- Food processing
.....
- Nutrition claim
.....
- Fortified food
.....
- Dairy food
.....
- Carbon footprint
.....
- Skimmed milk
.....

Fila B

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|---|--------------------------|--------------------------|
| 1. Small curds cooked at high temperatures yield soft cheeses. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Organic food production requires less energy and less labour during production than conventional food. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Food fortification means that nutrients such as fibre, calcium or vitamins are added to foods. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Minimally processed foods include breakfast cereal, nut butter, ice cream and garlic bread. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Olive oil is extracted with the aid of chemical solvents. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Food traceability is essential to protect public health. | <input type="checkbox"/> | <input type="checkbox"/> |

COMPREHENSION

2. Fill in the blanks.

In canning, a food is first **1.** and then the can is **2.** Ripening, or **3.**, makes some cheeses fully develop their tastes and **4.** Food safety encompasses food **5.**, preparation and storage so as to prevent the **6.** of food-borne **7.** Food **8.** may occur at any point **9.** the production **10.** The carbon **11.** sums up the GHG **12.** of the whole **13.** chain.

VOCABULARY

3. What do these terms mean?

1. CO₂eq.....
2. BHT
3. GWP

VOCABULARY

4. Write a definition for the following words:

1. Sinolea method
.....
2. Allergen
.....
3. Traceability
.....
4. Carbon footprint
.....
5. Nutrition claim
.....
6. Lactose
.....

MODULE 5 MODERN AGRICULTURE

Unit A – Cultivation Methods

Fila A

COMPREHENSION

1. Answer these questions.

1. Why is the demand for sustainable agriculture increasing?
2. What is the purpose of greenhouse farming?
3. What type of agriculture is gaining popularity in cities? Why?
4. What is industrial agriculture?
5. What are the advantages of urban agriculture?
6. What is a hot bed? How does it work?

GRAMMAR

2. Fill in the blanks with the comparative and superlative forms.

	Comparative	Superlative
1. bad		
2. far (two forms)		
3. complex		
4. noisy		
5. interesting		
6. crowded		
7. dirty		
8. ruthless		
9. nice		

GRAMMAR

3. Translate the following sentences into English.

1. Se le aziende agricole non contribuiranno alla riduzione dei gas serra, mitigare il riscaldamento globale sarà impossibile.
2. Lo scorso anno nell'azienda agricola di mio nonno la produzione di mele è aumentata del 20% rispetto all'anno prima.
3. L'uso di antibiotici a scopi non terapeutici nell'allevamento intensivo degli animali a lungo andare può causare problemi di salute ai consumatori.
4. Gli animali che pascolano e si muovono liberi nel proprio ambiente naturale producono una carne più saporita di quella prodotta nei sovraffollati allevamenti intensivi.

SPEAKING

4. Prepare a short speech (3-5 minutes) giving examples of non-sustainable and sustainable farming practices in the area where you live.

Fila B

COMPREHENSION

1. Answer these questions.

1. Why does monoculture farming resort to chemical inputs?
2. What is a cold frame? How does it work?
3. Why are sustainable farms considered to be environmentally-friendly?
4. What is the difference between hydroponics and aeroponics?
5. What are the three main areas of action, which may help reduce emissions from agriculture?
6. What are the disadvantages of urban agriculture?

GRAMMAR

2. Fill in the blanks with the comparative and superlative forms.

	Comparative	Superlative
1. careful		
2. clear		
3. good		
4. far (two forms)		
5. tasteless		
6. cruel		
7. heavy		
8. crowded		
9. fast		

GRAMMAR

3. Translate the following sentences into English.

1. Il logo dei prodotti biologici certifica che gli agricoltori rispettano le norme di produzione biologica.
2. In una serra è possibile creare l'ambiente adatto alla coltivazione di una determinata coltura. Questo permette di offrire più colture a livello locale e di diminuire di conseguenza i costi di trasporto.
3. Nella coltura aeroponica l'assenza di terreno riduce il rischio di malattie, perché le radici sono ben aerate e si mantengono asciutte.
4. Nella monocoltura, è necessario reintegrare nel terreno le sostanze nutrienti consumate dalla coltivazione dello stesso tipo di coltura anno dopo anno.

SPEAKING

4. Prepare a short speech (3-5 minutes) describing sustainable agriculture.

MODULE 5 MODERN AGRICULTURE

Unit B – Genetics in Agriculture

Fila A

COMPREHENSION

1. Ask the appropriate questions for the following answers.

1.? He did experiments with pea plants.
2.? It is *Pisum Sativum*.
3.? It means first filial generation.
4.? They are produced by crossing pure lines.
5.? It is called selection.
6.? It is added to field corn to make ethanol production easier.

COMPREHENSION

2. Decide if the characteristics mentioned in the table are obtained using biotechnologies or nanotechnologies.

Characteristics	Biotechnologies	Nanotechnologies
1. Resistance to herbicides		
2. Addition of vitamins and minerals		
3. Consumer alert that a food is not safe		
4. Development of vaccines		
5. Control of fertilizer release		
6. Pest killing inside the targeted insect		

VOCABULARY

3. Write the noun/nouns deriving from the verb, then translate them into Italian.

Verb	Noun/Nouns	Italian translation
1. to inherit		
2. to breed (two nouns)		
3. to blend		
4. to resemble		
5. to add		
6. to approve		
7. to expect		

SEQUENCING SENTENCES

4. Rearrange sentences to form the process of genetic modification.

- ☐ a. The single gene of interest is separated from the rest of the extracted genes.
- ☐ b. After insertion, the receiver plant becomes genetically modified and shows the desired trait.
- ☐ c. DNA extraction is carried out by taking a sample of bacteria containing the gene of interest.
- ☐ d. Genetic engineers design the gene to work inside a different organism.
- ☐ e. Scientists discover a living organism that exhibits the desired trait.
- ☐ f. The modified gene is ready to be inserted into a plant DNA using molecular techniques.

Fila B

COMPREHENSION

1. Ask the appropriate questions for the following answers.

1.?
It is because he discovered the basic principles of genetics.
2.?
They carry out their experiments with species that reproduce much more rapidly than peas.
3.?
You obtain a uniform population of F1 hybrid seeds.
4.?
They are also called biotech crops.
5.?
It is a bacterium used to make some crops insect resistant.
6.?
It is called nanotechnology.

COMPREHENSION

2. Decide if the characteristics mentioned in the table are obtained using biotechnologies or nanotechnologies.

Characteristics	Biotechnologies	Nanotechnologies
1. Resistance to pests		
2. Disease treatment		
3. Efficient administration of herbicides		
4. Neutralizing animal pathogens in livestock		
5. Resistance to diseases		
6. Addition of vitamins and minerals		

VOCABULARY

3. Write the noun/nouns deriving from the verb, then translate them into Italian.

Verb	Noun/Nouns	Italian translation
1. to detect		
2. to cut		
3. to treat		
4. to develop		
5. to differ		
6. to weaken		
7. to perform		

SEQUENCING SENTENCES

4. Rearrange sentences to form the process of genetic modification.

- ☐ a. Genetic engineers carry out some steps to separate the single gene of interest from the other genes.
- ☐ b. The living organism having the desired trait must be chosen.
- ☐ c. The desired trait can be found in the receiver plant once insertion is completed.
- ☐ d. The gene is designed to work inside a different organism.
- ☐ e. After modification, the gene can be inserted into the DNA of the receiver plant.
- ☐ f. DNA is extracted by taking a sample of bacteria that contains the gene of interest.

MODULE 6 WHERE DOES THE FOOD WE EAT COME FROM?

Unit A – Herbaceous Crops

Fila A

COMPREHENSION

1. Match the two parts of the sentences.

1. Oats
2. Mint
3. Barley
4. Vegetables
5. Sunflower seeds
6. Carrots
7. Maize
8. Rapeseed
9. Tomatoes

- a. can be consumed either raw or cooked and contain a low amount of protein and fat.
- b. is successfully grown in North-Western Europe and is used both as feed and for human consumption.
- c. as become the main feedstock for biodiesel in the European Union.
- d. are rich in beta-carotene and have cardiovascular and anti-cancer benefits.
- e. is used to add flavour to dishes and also for its medicinal properties.
- f. have a high lycopene content and can be consumed both fresh and processed.
- g. is also called corn and is one of the three staple plant foods eaten by Native Americans.
- h. is used to produce beer and whisky.
- i. are a popular snack food in some countries.

1.; 2.; 3.; 4.; 5.; 6.; 7.; 8.; 9.....

COMPREHENSION

2. Answer the questions.

1. What happens if potatoes are not properly stored?
2. What is durum wheat mainly used for?
3. What are the characteristics of peanut oil?
4. What are whole grains?
5. What are culinary herbs?
6. According to the FAO definition, what are cereal crops?

VOCABULARY

3. Translate the following words into English.

- | | |
|-----------------------------|----------------------|
| 1. Dea | 7. Pasticcino |
| 2. Pannocchia di mais | 8. Lenticchia |
| 3. Erba cipollina | 9. Antipasto |
| 4. Amido | 10. Finocchio |
| 5. Sensibile | 11. Prezzemolo |
| 6. Bevanda | 12. Affettato |

SPEAKING

4. Prepare a short speech (3-5 minutes) about tomatoes, carrots, pumpkins and courgettes.

Fila B

COMPREHENSION

1. Match the two parts of the sentences.

1. Soya bean
2. Sorghum
3. Pumpkins
4. Legumes
5. Cotton
6. Rice
7. Potatoes
8. Peanuts
9. Wheat

- a. is tolerant to drought and can be grown in very hot and dry conditions.
- b. yields an oil used in industrial food processing and fibres which are used in the textile industry.
- c. have nitrogen-fixing abilities and increase soil fertility.
- d. must be stored in dark places to avoid them becoming toxic to humans.
- e. is an oil crop and a source of protein for both animals and humans.
- f. is the most important food crop in the world.
- g. are legumes whose fruits develop underground.
- h. are low in sodium and calories and rich in fibre and beta-carotene.
- i. needs plenty of water during the growing season.

1.; 2.; 3.; 4.; 5.; 6.; 7.; 8.; 9.....

COMPREHENSION

2. Answer the following questions:

1. According to the FAO definition, what are fodder crops?
2. What is soft wheat mainly used for?
3. What is the difference between winter squash and summer squash?
4. How should leafy vegetables be stored? Why?
5. What is linseed oil used for?
6. How does the FAO define cereals?

VOCABULARY

3. Translate the following words into English.

- | | |
|-------------------------|-----------------------------|
| 1. Anguria | 7. Aglio |
| 2. Commestibilità | 8. Cariosside |
| 3. Salvia | 9. Cucina mediterranea..... |
| 4. Basilico | 10. Contorno |
| 5. Succo | 11. Grano saraceno |
| 6. Carciofo | 12. Alimento base |

SPEAKING

4. Prepare a short speech (3-5 minutes) about oil crops.

MODULE 6 WHERE DOES THE FOOD WE EAT COME FROM?**Unit B – Tree Crops****Fila A****COMPREHENSION****1. Fill in the table indicating three fruits belonging to each of the following fruit groups:**

1. Pepo fruits	
2. Hesperidiums	
3. Drupes	
4. Pome fruits	
5. Nuts	
6. Fleshy multiple fruits	

COMPREHENSION**2. Give examples of four dry dehiscent fruit types.**

.....

.....

.....

.....

COMPREHENSION**3. Tick true (T) or false (F) at the end of each sentence and correct the false ones.**

	T	F
1. The best time for grafting is autumn, about six months before blossom time.	<input type="checkbox"/>	<input type="checkbox"/>
2. Bramble fruits, like redcurrant and blueberry, are used to produce tasty jellies.	<input type="checkbox"/>	<input type="checkbox"/>
3. Apples can be used to produce a beverage called cider.	<input type="checkbox"/>	<input type="checkbox"/>
4. Nutritionists recommend eating dried pears to get the most benefit from them.	<input type="checkbox"/>	<input type="checkbox"/>
5. Thinning should be done to allow a fruit tree to produce larger fruits.	<input type="checkbox"/>	<input type="checkbox"/>
6. Fresh plums can be stored for a few weeks at room temperature.	<input type="checkbox"/>	<input type="checkbox"/>
7. Apricots are picked during the summer in Northern European countries.	<input type="checkbox"/>	<input type="checkbox"/>
8. Oleuropein gives grapefruits their slightly bitter taste.	<input type="checkbox"/>	<input type="checkbox"/>

VOCABULARY**4. Write a definition for the following fruit types:**

- Aggregate fruits
- Multiple fruits
- Dry dehiscent fruits
- Berries

WRITING**5. Write a short essay (about 200 words) describing what grafting is and how it works.**

Fila B

COMPREHENSION

1. Fill in the table indicating three fruits belonging to the following fruit groups:

1. Polidrupes	
2. Pome fruits	
3. Legumes	
4. Caryopses	
5. Capsules	
6. Berries	

COMPREHENSION

2. Give examples of four dry indehiscent fruit types.

.....

.....

.....

.....

COMPREHENSION

3. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

	T	F
1. Olives are said to ward off diabetes, metabolic syndrome and cardiovascular disease.	<input type="checkbox"/>	<input type="checkbox"/>
2. Citrus peel oil contains healthy fats and should be consumed daily.	<input type="checkbox"/>	<input type="checkbox"/>
3. Apricots are renowned as a good source of beta-carotene (Vitamin A) and Vitamin C.	<input type="checkbox"/>	<input type="checkbox"/>
4. Citrus fruits have medicinal properties and are rich in Vitamin C.	<input type="checkbox"/>	<input type="checkbox"/>
5. The stone cells contained in pear pulp are called pebbles.	<input type="checkbox"/>	<input type="checkbox"/>
6. Fruit trees require soils which drain slowly to best grow.	<input type="checkbox"/>	<input type="checkbox"/>
7. Grafting refers to the joining of two plants of the same species.	<input type="checkbox"/>	<input type="checkbox"/>
8. The pulps of apples and pears turn brown when the fruits are canned.	<input type="checkbox"/>	<input type="checkbox"/>

VOCABULARY

4. Write a definition for the following fruit types:

- Simple fruits
- Berries
- Accessory fruits
- Dry indehiscent fruits

WRITING

5. Write a short essay (about 200 words) about growing fruit trees.

MODULE 6 WHERE DOES THE FOOD WE EAT COME FROM?

Unit C – Viticulture

Fila A

COMPREHENSION

1. Choose the correct option.

1. The grape species accounting for over 90% of world grape production is called

- ☐ a. *Vitis labrusca*.
- ☐ b. *Vitis vinifera*.
- ☐ c. *Vitis rupestri*.
- ☐ d. *Vitis riparia*.

2. The grape root louse, which devastated European vineyards in the 1860s was called

- ☐ a. *Plasmopara viticola*.
- ☐ b. *Uncinula necator*.
- ☐ c. *Erysiphe necator*.
- ☐ d. *Phylloxera vastatrix*.

3. Grapes are

- ☐ a. drupes that grow in bunches.
- ☐ b. fleshy aggregate fruits.
- ☐ c. berries that grow in bunches.
- ☐ d. fleshy multiple fruits.

4. In order to make white wine

- ☐ a. the juice must be separated from skins and seeds as quickly as possible.
- ☐ b. grapes must be harvested before they reach maturity.
- ☐ c. destemming is done by hand.
- ☐ d. *Botrytis cinerea* is added during the winemaking process.

5. Warmer microclimates and proper drainage in nearby areas allow grapes to be grown

- ☐ a. along the slopes of alpine woods.
- ☐ b. in terraces along sandy shores.
- ☐ c. along the slopes of rivers and lake valleys.
- ☐ d. along the banks of mountain rivers.

6. Grapes infected by powdery mildew

- ☐ a. are excellent for the production of particularly fine and concentrated sweet wine.
- ☐ b. develop yellowish discolorations which turn brown.
- ☐ c. are more attractive to birds.
- ☐ d. are susceptible to infection by *Botrytis*.

VOCABULARY

2. Translate the following words into Italian.

1. Oidium
2. Grey mould
3. Prone to
4. Rootstock
5. Veraison
6. Poor-quality
7. Key factor
8. Individual
9. Crushing
10. Stainless steel
11. Marc
12. Bottling
13. Yeast

GRAMMAR

3. Translate the following sentences into English.

1. Western Winery produce vino da più di un secolo.
.....
2. I Romani diffusero l'uva in tutta l'Europa.
.....
3. L'Italia e la Francia sono i maggiori produttori di vino nel mondo.
.....
4. Vendemmieremo tra poche settimane!
.....
5. Nella vinificazione in rosso i tannini contribuiscono alla struttura ed al corpo del vino.
.....

SPEAKING

4. Prepare a short speech (3-5 minutes) about grape cultivation and grape cultivation practices.

MODULE 6 WHERE DOES THE FOOD WE EAT COME FROM?

Unit C – Viticulture

Fila B

COMPREHENSION

1. Choose the correct option.

1. To be alerted about the presence of pests and diseases in their vineyards, grape growers
 - ☐ a. plant rose bushes at the ends of vine rows.
 - ☐ b. use randomly-firing auto cannons at the edges of rows.
 - ☐ c. use special rootstocks attractive to pests and diseases.
 - ☐ d. utilize specially trained dogs.
2. When deciding to use the trellising method, the grape grower should consider
 - ☐ a. the moisture content of the growing area.
 - ☐ b. exposure to sun, wind and the accessibility of fruit clusters to make harvest procedures easier.
 - ☐ c. grey mould infections in the previous five years.
 - ☐ d. the presence of mammals in nearby areas.
3. The decision whether to de-stem the grapes upon arrival at the winery or after crushing depends on
 - ☐ a. the operating schedule of the winery.
 - ☐ b. the availability of expert workers in destemming practices.
 - ☐ c. the type of wine which is being made.
 - ☐ d. the proper functioning of the destemmer.
4. Grapes contain
 - ☐ a. glucose and lactose.
 - ☐ b. lactose and maltose.
 - ☐ c. glucose and fructose.
 - ☐ d. sucrose and glucose.
5. Grapes grown in highly fertile soils
 - ☐ a. are not suitable for the production of high quality wines.
 - ☐ b. are attacked by pests more easily.
 - ☐ c. yield wines which have more concentrated flavours.
 - ☐ d. are in greater demand on the table grapes market .
6. The Bordeaux mixture is used
 - ☐ a. to add tannins to red wine.
 - ☐ b. to prevent moulds from attacking grapes.
 - ☐ c. to deter moles from destroying vineyards.
 - ☐ d. to keep birds at bay.

VOCABULARY

2. Translate the following words into Italian.

1. Preservative
2. Winemaking
3. Fencing
4. Felt
5. Grape root louse
6. Concrete
7. Equipment
8. Vat
9. Grey mould
10. Climbing
11. Veraison
12. Must
13. Aging

GRAMMAR

3. Translate the following sentences into English.

- 1 Per il vino rosso è opportuna una seconda fermentazione.
.....
2. Lo studio scientifico dei vini e della vinificazione si chiama enologia.
.....
3. Prenderò un bicchiere di vino moffato.
.....
4. I vinaccioli si trovano all'interno degli acini d'uva.
.....
5. Per assicurarsi che le viti mantengano la forma desiderata, è necessario potarle.
.....

SPEAKING

4. Prepare a short speech (3-5 minutes) explaining the winemaking process.

MODULE 7 CARING FOR ANIMALS

Unit A – Livestock and Aquaculture

Fila A

GRAMMAR

1. Write the plural of the following words.

- | | |
|------------------|-----------------|
| 1. Ox | 5. Goose |
| 2. Sheep..... | 6. Virus |
| 3. Pig | 7. Hoof |
| 4. Chicken | 8. Turkey |

VOCABULARY

2. What are they called?

- | | |
|---|---|
| 1. A young non-lactating female bovine..... | 8. A mature female chicken |
| | 9. A chicken raised for eggs |
| 2. A castrated male bovine | |
| 3. A baby bovine | 10. An adult female sheep |
| 4. A male pig used for breeding | 11. A baby sheep |
| 5. A female pig that has had a litter | 12. An adult male rabbit |
| | 13. An adult female goat |
| 6. A newly hatched chicken | 14. A baby goat |
| 7. An immature female chicken | 15. A large group of bovines producing milk ... |
| | |

COMPREHENSION

3. Answer the following questions:

1. In aquaculture, why is the recirculation technique named that way ?
2. Which fish farming type utilizes ponds?
3. How are piglets nourished after birth in farming systems?
4. Why are computers used in milking facilities?
5. What do farmed animals provide humans with?
6. What is beef from older animals used for?
7. What does the word ruminant refer to?

COMPREHENSION

4. Fill in the blanks.

The **1.** parlour must be clear of **2.** and allow the dairyman to have comfortable **3.** to the cows' udders. Sometimes piglets' teeth are **4.** to make sure they can't cause other piglets or the **5.** udders any **6.**

7. are very fast-growing animals. They can be raised using the deep **8.** method or the **9.** method.

10. houses are normally equipped with **11.** systems and heaters.

In marine cage aquaculture fish are kept in **12.** cages anchored to the **13.**

Fila B

GRAMMAR

1. Write the plural of the following words.

- | | |
|--------------------|-----------------|
| 1. Calf | 5. Deer |
| 2. Goose | 6. Fungus |
| 3. Tooth | 7. Mouse |
| 4. Bacterium | 8. Steer |

VOCABULARY

2. What are they called?

- | | |
|---|---|
| 1. A lactating female bovine | 9. Raised birds that roam freely |
| 2. An intact male bovine | |
| 3. A baby pig | 10. An adult male sheep |
| 4. A female pig that has not had a litter yet | 11. An adult female rabbit |
| | 12. A baby rabbit |
| 5. A castrated male pig | 13. An adult male goat |
| 6. An immature male chicken | 14. A milk goat |
| 7. A mature male chicken | 15. A bovine used as draught animal |
| 8. A chicken raised for meat | |

COMPREHENSION

3. Answer the following questions:

- Which aquaculture farming type/s can use the recirculation technique?
- Which fish farming type utilizes lagoons near the coast?
- What happens when piglets reach a weight of 15 kg?
- Why is cow identification important in milking facilities?
- What is beef?
- Regarding poultry farming, what has been banned in the European Union?
- Referring to animals, what is a browser?

COMPREHENSION

4. Fill in the blanks.

- are floor-raised in large open structures called grow-out
 -
- Sheep provide 3., Mohair is provided by Angora 4., rabbits provide high quality 5.
- Pigs consume the 6. of the food processing industry such as brewer's 7., cereals and dairy products.
8. include filter-feeding animals such as 9., mussels, 10. and abalones.
- In the US livestock are raised in the so-called 11. Animal Feeding 12., or 13.

MODULE 7 CARING FOR ANIMALS

Unit B – Apiculture

Fila A

COMPREHENSION

1. Choose the correct option.

1. Worker bees
 - ☐ a. live from 6 to 16 weeks.
 - ☐ b. die after mating.
 - ☐ c. can be driven out of the hive after performing their functions.
 - ☐ d. produce about 100,000 eggs each during their lifetime.
2. Movable frame hives allow the beekeeper
 - ☐ a. to clean the beehive at least once a day.
 - ☐ b. to check how many eggs there are in the beehive.
 - ☐ c. to collect the products produced by bees without damaging the combs.
 - ☐ d. to check if the bees in the beehive have swarmed away.
3. The hair covering the bees' bodies may
 - ☐ a. clean the honeycombs.
 - ☐ b. hold the substances the bees come in contact with.
 - ☐ c. sting a beekeeper who does not wear protective clothes.
 - ☐ d. allow bees to extend their flight range.
4. To decrease levels of free radicals, people should
 - ☐ a. consume royal jelly.
 - ☐ b. add honey to beverages.
 - ☐ c. eat propolis in winter.
 - ☐ d. consume pollen in the summer.
5. A queen bee
 - ☐ a. dies when she's no longer able to lay eggs.
 - ☐ b. produces pheromones suppressing sexual maturity in drones.
 - ☐ c. feeds on larvae.
 - ☐ d. may lay more than 500,000 eggs during her lifetime.
6. Swarming may result
 - ☐ a. in the loss of worker bees for the queen.
 - ☐ b. in a decrease in pollen available for feeding larvae.
 - ☐ c. in an economic loss for the beekeeper.
 - ☐ d. in the death of drones in warmer climates.

VOCABULARY

2. Translate the following words into English.

1. Apicoltore
2. Telaio
3. Ago di pino
4. Pappa reale
5. Marcio
6. Arnia
7. Cera
8. Indumento

WRITING

3. Write a short essay (200 words) using the following guidelines:

- List the main tasks of the beekeeper.
- Indicate how he/she should be dressed when working in the bee yard.
- Explain how he/she can inhibit the bees' ability to sting.

Fila B

COMPREHENSION

1. Choose the correct option.

1. In the bee yard, the maximum population of harvester bees must be reached when
 - ☐ a. crops are ready for harvesting in the fields.
 - ☐ b. nectar is available in nearby areas.
 - ☐ c. systemic pesticides are sprayed on crops.
 - ☐ d. the colony is ready to swarm away.
2. Some researchers believe that CCD is due to
 - ☐ a. certain pesticides attacking insects that are also beneficial.
 - ☐ b. systemic herbicides killing plants whose flowers the bees collect the nectar from.
 - ☐ c. the sudden death of the queen bees.
 - ☐ d. beekeepers smoking cigarettes in the bee yards.
3. Residues of heavy metals may be found
 - ☐ a. in systemic pesticides sprayed on crops near beehives.
 - ☐ b. in bee stings causing allergic reactions in humans.
 - ☐ c. in removable frames in modern beehives.
 - ☐ d. in beehive products even decades after industry closure.
4. Bees
 - ☐ a. provide essential products for the Royal Family.
 - ☐ b. sustain life on our planet.
 - ☐ c. provide synthetic sweeteners for the food industry.
 - ☐ d. make our lives sustainable.
5. Drones are male bees and
 - ☐ a. are larger than the queen.
 - ☐ b. are smaller than worker bees.
 - ☐ c. are smaller than the queen.
 - ☐ d. are the largest bees in the hive.
6. Propolis
 - ☐ a. has medicinal and nutritional properties.
 - ☐ b. is used in candle-making and cosmetics.
 - ☐ c. can be found on the top bars of removable combs.
 - ☐ d. is made from the nectar of yellow flowers.

VOCABULARY

2. Translate the following words into English.

1. Potente
2. Accoppiarsi (di animali)
3. Ago di pino
4. Tessuto
5. Bando, divieto
6. Affidabile
7. Chiusura
8. Inesperto

WRITING

3. Write a short essay (200 words) using the following guidelines:

- Describe what a bee colony is.
- Illustrate its components and their functions.
- Explain what swarming is and when it may happen.

MODULE 8 TECHNOLOGY IN AGRICULTURE

Unit A – Farm Machinery and Robots

Fila A

COMPREHENSION

1. Answer these questions.

1. What does GPS stand for?
2. What is a Geographic Information System?
3. What is precision agriculture?
4. In precision agriculture, what allows for the adjustment of application rates of PPPs?
5. What is a grain elevator?
6. What is the main feature of an unmanned tractor?
7. What tasks can be performed by unmanned tractors?
8. How does a robotic device keep birds at bay from vineyards?

VOCABULARY

2. Fill in the table indicating the agricultural tool matching the definition and translate its name into Italian.

Definition	Tool	Italian translation
It has three or four prongs.		
It is suitable for lifting and carrying materials.		
It has a row of teeth.		
Its blade is 60 to 90 cm long.		

COMPREHENSION

3. Tick the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. shears ☐ b. scythe ☐ c. sickle ☐ d. sprayer
.....
2. ☐ a. soil sampling ☐ b. crop scouting ☐ c. healthy eating ☐ d. yield mapping
.....
3. ☐ a. wheelbarrow ☐ b. combine ☐ c. seed drill ☐ d. tractor
.....
4. ☐ a. milking cows ☐ b. fruit picking ☐ c. grape pruning ☐ d. tasting wines
.....
5. ☐ a. stereoscopic cameras ☐ b. gripper units ☐ c. stroboscopic lights ☐ d. vacuum suction cups
.....

SPEAKING

4. Prepare a short speech (3-5 minutes) to describe how robotic milking works.

Fila B

COMPREHENSION

1. Answer these following questions:

1. What does GIS stand for?
2. What does GPS enable its users to do?
3. What is a tractor?
4. Regarding tractors, what is an important innovation that has been introduced in recent years?
5. What allows these tractors to perform their tasks?
6. In a robot vineyard pruner, what are the cuts performed by?
7. What is precision agriculture?
8. What ensures that a shearing robot will not harm either the sheep or the sheep's wool?

VOCABULARY

2. Fill in the table indicating the agricultural tool matching the definition and translate its name into Italian.

Definition	Tool	Italian translation
Its thin, flat blade is used to break up the soil or destroy weeds.		
It has three tines.		
It is used to cut grain or tall grass.		
Its blade can be pressed into the ground with the foot.		

COMPREHENSION

3. Tick the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. reaping ☐ b. planting ☐ c. threshing ☐ d. winnowing
.....
2. ☐ a. planting drill ☐ b. potato planter ☐ c. cotton picker ☐ d. rice transplanter
.....
3. ☐ a. robot arm ☐ b. compressed air ☐ c. brushes ☐ d. prongs
.....
4. ☐ a. driverless tractor ☐ b. manned harvester ☐ c. driverless harvester ☐ d. self-guided tractor
.....
5. ☐ a. knife ☐ b. fork ☐ c. rake ☐ d. hand cultivator
.....

SPEAKING

4. Prepare a short speech (3-5 minutes) to illustrate how a robotic fruit harvester works.

MODULE 8 TECHNOLOGY IN AGRICULTURE

Unit B – Renewable Energy in Agriculture

Fila A

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

	T	F
1. Hydrogen is a natural gas that when combined with other elements produces electricity.	<input type="checkbox"/>	<input type="checkbox"/>
2. Anaerobic digestion in tanks called digesters and manure ponds called lagoons allow farmers to produce biomass.	<input type="checkbox"/>	<input type="checkbox"/>
3. Growing crops for biofuel production reduces areas available for food crops.	<input type="checkbox"/>	<input type="checkbox"/>
4. Net metering enables farmers to sell the surplus energy they produce to the electric company.	<input type="checkbox"/>	<input type="checkbox"/>
5. Photovoltaic panels are located close to power lines as they need to be recharged regularly.	<input type="checkbox"/>	<input type="checkbox"/>
6. A disadvantage of wind turbines is that they are very expensive to maintain and operate.	<input type="checkbox"/>	<input type="checkbox"/>
7. Biomass and fuel additives from biomass include ethanol, biodiesel, methanol and reformulated gasoline components.	<input type="checkbox"/>	<input type="checkbox"/>
8. As a source of energy, biomass helps reduce waste and GHG emissions.	<input type="checkbox"/>	<input type="checkbox"/>

COMPREHENSION

2. Answer the following questions:

1. What happens when farmers allow energy developers to install wind turbines on their land?
2. What type of energy do hydroelectric power plants capture?
3. What are four types of technologies that capture the sun's energy called?
4. What does a wind turbine consist of?

VOCABULARY

3. Translate the following words into Italian.

1. Sunlit
2. Maintenance
3. To mimic
4. Blade
5. To spin
6. To exploit
7. Inconsistent
8. To focus
9. Food scraps

WRITING

4. Write a short essay (200 words) describing the advantages and disadvantages of wind energy.

Fila B

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

	T	F
1. Renewable energy sources include sunlight, geothermal energy, coal, wind and oceans.	<input type="checkbox"/>	<input type="checkbox"/>
2. The digestate deriving from anaerobic digestion can be used as a herbicide.	<input type="checkbox"/>	<input type="checkbox"/>
3. Biofuels are liquid fuels produced from biomass.	<input type="checkbox"/>	<input type="checkbox"/>
4. Biomass and fuel additives from biomass include ethanol, biodiesel, methanol and reformulated gasoline components.	<input type="checkbox"/>	<input type="checkbox"/>
5. Farmers are discouraged from installing wind turbines in their farms, because they produce more energy than their farms need.	<input type="checkbox"/>	<input type="checkbox"/>
6. Anaerobic digestion is used to produce biofuels and biogas.	<input type="checkbox"/>	<input type="checkbox"/>
7. Passive Solar Heating and Daylighting requires the installation of solar hot water systems.	<input type="checkbox"/>	<input type="checkbox"/>
8. Growing crops for biofuel production reduces areas available for food crops.	<input type="checkbox"/>	<input type="checkbox"/>

COMPREHENSION

2. Answer the questions below:

1. What are the types of energy provided by the oceans?
2. What is the advantage of using biomass as an energy source?
3. What is anaerobic digestion?
4. Why are wind turbines 30 meters tall?

VOCABULARY

3. Translate the following words into Italian.

1. To upgrade
2. Bio-digester
3. Bark
4. Engine
5. To pre-heat
6. Cooking grease
7. To break down.....
8. Landfill.....
9. Propeller

WRITING

4. Write a short essay (200 words) describing the advantages and disadvantages biofuels.

MODULE 9 THE FARM

Unit A – Farm Management

Fila A

VOCABULARY

1. Write a definition for the following words:

1. Labour
2. Fixed costs.....
3. Profits
4. Manager.....
5. Capital
6. Subsistence agriculture

COMPREHENSION

2. Tick the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. grain bins ☐ b. consultants
☐ c. pesticides ☐ d. tractors
.....
2. ☐ a. producing more than one crop ☐ b. information about crop diseases
☐ c. insurance ☐ d. providing accommodation
.....
3. ☐ a. mulches ☐ b. moulds
☐ c. organic dusts ☐ d. spores
.....
4. ☐ a. deer ☐ b. bovines
☐ c. llamas ☐ d. wild boar
.....
5. ☐ a. labour ☐ b. capital
☐ c. fixed costs ☐ d. land
.....
6. ☐ a. wearing protective clothes ☐ b. planning finance
☐ c. farm plannin ☐ d. buying supplies
.....

VOCABULARY

3. Translate the following words into English.

1. Farsi male
2. Didattico
3. Addestrato
4. Assegnazione delle risorse
5. Pelle (di animale)
6. Operativo.....
7. Prevenire

Fila B

VOCABULARY

1. Write a definition for the following words:

1. Outputs
2. Organic farming
3. Entrepreneurs
4. Business plan
5. Variable costs
6. Land

COMPREHENSION

2. Tick the odd one out among a, b, c, or d, giving reasons.

1. ☐ a. product diversification ☐ b. new technologies
☐ c. pollution ☐ d. insurance
.....
2. ☐ a. oxygen ☐ b. carbon dioxide
☐ c. methane ☐ d. ammonia
.....
3. ☐ a. wind power generation ☐ b. holiday lets
☐ c. worm farming ☐ d. pig farming
.....
4. ☐ a. manure pits ☐ b. chemicals
☐ c. tractors ☐ d. accountants
.....
5. ☐ a. labour ☐ b. variable costs
☐ c. capital ☐ d. enterprise
.....
6. ☐ a. modern technology ☐ b. subsistence agriculture
☐ c. modern equipment ☐ d. farm diversification
.....

VOCABULARY

3. Translate the following words into English.

1. Carne di cervo
2. Reddito
3. All'avanguardia
4. Soffocamento
5. Cintura di sicurezza
6. Sprofondare
7. Equitazione

MODULE 9 THE FARM

Unit B – Agri-food Economy and Marketing

Fila A

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. The food industry sector is the largest manufacturing industry in Europe. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. By investing huge sums of money in equipment and technology, US agriculture produces high volumes both in crops and in animal production. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. In the European food industry sector, most enterprises are large multinational companies. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. In the EU, the whole value chain must cooperate to improve the market position of farmers from developing countries. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. In Italy, farmers actively contribute to protect the environment and maintain the landscape. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. "Utilised Agricultural Area" indicates the land which is devoted to mono-cropping in Italy. | <input type="checkbox"/> | <input type="checkbox"/> |

VOCABULARY

2. Translate the following words into English.

1. Tempestività
2. Dotato di aria condizionata
3. Commercio equo
4. Salariato (sost.)
5. Reddito
6. Giro d'affari
7. Barbabietola da zucchero
8. Consapevole

SPEAKING

3. Prepare a short speech (3-5 minutes) about agricultural marketing and agricultural target groups.

WRITING

4. Write a short essay (200 words) to describe Italian and UK agriculture. Compare them to agriculture in the USA.

Fila B

COMPREHENSION

1. Tick true (T) or false (F) at the end of each sentence and correct the false ones.

- | | T | F |
|--|--------------------------|--------------------------|
| 1. In the UK, arable farming is mainly practiced in the north-western areas of the country. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. "Utilised Agricultural Area" indicates the land devoted to agriculture in the UK. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. All players involved in agribusiness use marketing techniques to make sure they will sell their products. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Consumers are increasingly conscious about food quality and the ethical aspects related to food production. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. To compete in a globalized world, small farms with no access to international markets must produce organic foods. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. The function of marketing is to create a demand for a product customers do not need. | <input type="checkbox"/> | <input type="checkbox"/> |

VOCABULARY

2. Translate the following words into English.

1. Campagna pubblicitaria
2. Maggioranza
3. Giro d'affari.....
4. Fungo (*commestibile*)
5. Migliaia
6. Tempestività
7. Idrogeologico
8. Attività ricreativa

SPEAKING

3. Prepare a short speech (3-5 minutes) about the agri-food sector in the EU. Explain what it is, the challenges it is facing and detail what CAP is.

WRITING

4. Write a short essay (200 words) to describe agriculture in the USA. Make a comparison between agriculture in the USA and agriculture in Europe.

MODULE 9 THE FARM

Unit C – The Farm in the European Union

Fila A

COMPREHENSION

1. Answer the questions.

1. What are the purposes of the CAP?
2. What does the CAP provide to prevent land abandonment?
3. What is the FAO?
4. How does the EU address biodiversity issues?
5. What are the vital functions performed by biodiversity?
6. What is the CAP's attitude towards the direct sales by farmers to consumers in farmers' markets?

COMPREHENSION

2. What are the three main aspects of agriculture that the CAP focuses on? How?

1.
2.
3.

COMPREHENSION

3. With reference to the CAP's timeline, indicate what happened in the following years:

1. 1957
.....
2. 1970s–1980s
.....
3. mid-1990s
.....
4. 2003
.....
5. mid-2000s
.....

WRITING

4. Write a short essay (200 words) to describe the EU's approach towards food quality.

Fila B

COMPREHENSION

1. Answer the questions below.

1. What is the purpose of the FAO?
2. What is the EU approach towards water resources?
3. What are the vital functions performed by biodiversity?
4. To whom does the FAO devote its efforts?
5. After the 2013 reform, what do farmers have to do to be entitled to support payments? Give examples.
6. What is the EU approach towards soil?

COMPREHENSION

2. Write what the below acronyms stand for and give a definition for each.

1. PDO
2. PGI
3. TSG.....

COMPREHENSION

3. With reference to the CAP's timeline, indicate what happened in the following years:

1. 1957
.....
2. 1962
.....
3. mid-1990s
.....
4. 1992
.....
5. 2011
.....

WRITING

4. Write a short essay (200 words) to describe the approach of the EU towards the environment and environmental issues.

MODULE 10 APPROACHING THE WORLD OF WORK

Unit A – What can I do now?

Fila A

WRITING

1. You are a potato agronomist. Based on the job advertisement below, prepare a suitable CV to apply for the job.

Potato Agronomist

Job Ref: 24962

Due to recent expansion of services and client base, an exciting opportunity has arisen for a qualified agronomist to join the Best Potatoes Ltd. team on a full-time, permanent basis to help deliver and grow our potato consultancy services in Scotland. The Potato Agronomist would be involved in direct agronomy consultancy with growers and grower groups, but will also help drive new business and services across the entire potato growing regions of Scotland.

The ideal candidate would be suitably qualified, with knowledge and experience of potato production and agronomy and may be looking to specialise in this field. The role would suit anyone who is looking to deliver specialised, independent advice to very forward-thinking and progressive farming businesses. The opportunity is available for successful candidates to bring an existing portfolio of customers with them and this would be reflected in the salary.

Package: Competitive salary – Company car – 4X4 – Mobile phone / iPad / laptop – Company health and pension scheme – Bonus opportunities.

WRITING

2. You are a field and machinery technician. Write the cover letter that you would send with your CV to reply to the job advertisement below.

Field and Machinery Technician

Employment Type: Full-time, Permanent

Salary Range: Competitive

Region: East of England

Recruiter: Steward Seed Ltd.

Job Ref: 12116

As a barley breeding and seed company, we are currently seeking a full-time Field and Machinery Technician to join our barley breeding team based in Stowmarket, Suffolk.

The role involves all aspects of fieldwork including the cultivation, drilling, spraying and harvesting of trials and breeding nurseries. The successful candidate will also assist with machinery maintenance and will be involved with various seasonal barley breeding activities.

This position requires a flexible approach and the ability to work as part of a team.

Relevant certificates of competence are requested. The ideal applicant should have practical experience in agriculture, horticulture or similar areas. A full clean driving licence is essential.

Fila B

WRITING

1. You are a field and machinery technician. Based on the job advertisement below, write your CV to apply for the job.

Field and Machinery Technician

Employment Type: Full-time, Permanent

Salary Range: Competitive

Region: East of England

Recruiter: Steward Seed Ltd.

Job Ref: 12116

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WRITING

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