Full name: ..... **READING HOMEWORK – PART 1**

Worksheet 9	**Topic: Education System**		**WID:** IELTS5.5_09_R
Skills	**IELTS Reading:** - skim a text to locate information quickly - complete a flow-chart - Flow-chart - Diagram - Table completion	**..... pts/10**	**QR code:**

Exercise 1. [IELTS Reading: Flow chart completion] Read the passage and complete the flow chart below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

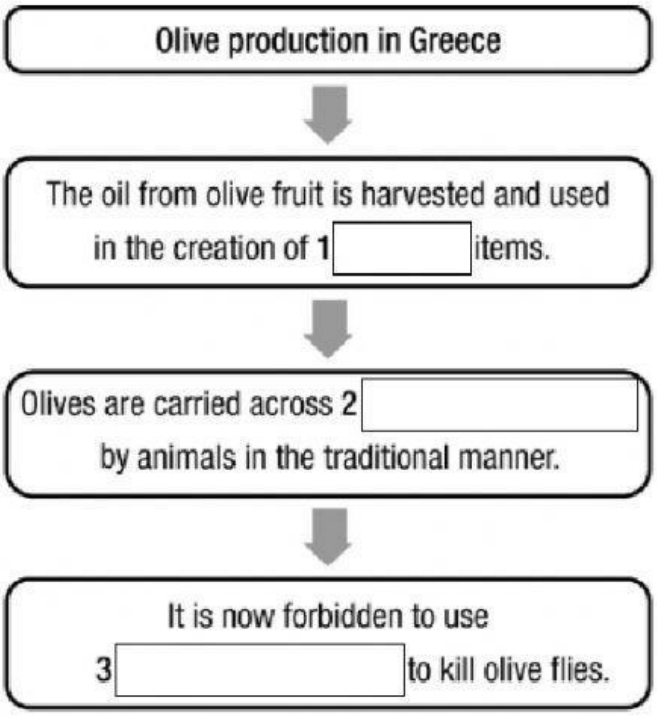
Olive production in Greece

The olive tree typically grows in areas with hot, dry summers and wet winters, often near the sea. Greece is an ideal location for cultivating olive trees, and indeed olives have been an integral part of life there for thousands of years. The fruit from these trees has long been eaten as a food, but around 90% of olives are actually used to make oil after they have been picked. Not only is this used as a healthy alternative to cooking fat, but it can also be used in the production of cosmetic products such as soap and shampoo. In addition, the wood from the olive trees can be used to make high-quality furniture and kitchen equipment like bowls or chopping boards.

On Corfu alone, there are an estimated three million olive trees. As a result, olives have long been an important part of this island's economy. Despite modern technology, some people there still collect olives in a very traditional way. For instance, nets are laid under each olive tree during the winter months. The grass and weeds on the ground beneath each one are cleared by hand. By April, the olives drop naturally into the nets, where they wait to be collected. They are then loaded into sacks, and transported long distances over mountainous terrain. Because of this, donkeys are often used. One benefit of using these methods to harvest olives, even though machines are available, is that the fruit is not bruised. Consequently, the quality is often higher.

One problem affecting these trees is the olive fly. This creature thrives in cool and wet summers, and, in large numbers, it can consume vast quantities of olives. Moreover, with enough food to eat, the flies multiply quickly. Therefore, in one summer, several generations of these insects can cause severe damage to olive crops. Attempts have been made using modern

solutions to reduce the number of flies. For example, poisonous chemicals were once sprayed on olive trees, but these have now been banned.



<u>Exercise 2.</u> [IELTS Reading: Flow chart completion] Read the information. Then complete the flow chart below.

Olive trees can live to be hundreds of years old and produce large amounts of fruit in their lifetime. People have been making olive oil in countries around the Mediterranean Sea for many centuries, and this can be done by simply crushing the olives. Modern commercial extraction is a more complex process, although the same basic principle of crushing the fruit to release the oil is in play.

The olive harvest is the first step in making olive oil. Traditional producers use a number of low-tech means to gather the olive crop. One common method is for workers on ladders to simply pick the olives by hand and put them into baskets tied around their waists. Or workers may beat the branches with broomsticks, collecting the olives on the ground. Commercial processors use electronic tongs to strip olives off the branches and drop them into large nets spread out below the trees. It is then important to get the olives to the mill as quickly as possible, before the level of acidity becomes too great, as this can spoil the flavour of the oil.

After the harvested olives have been brought to the mill, traditional producers pick through the olives by hand to remove dirt, leaves and twigs. Commercial producers use cleaning machines to accomplish the same goal. Fans blow away the majority of smaller particles and another machine picks out any remaining larger bits. The olives are then turned into a paste as they pass through the mill. Large 'millstones' are used for this purpose by traditional makers, whereas commercial production involves the use of a mechanised alternative, known as a hammermill. Once milled, the olive paste is ready for a process called malaxation. In this stage of the process, the milled paste is stirred and mixed for 20 to 40 minutes. This is done with wooden spoons by traditional producers, while commercial producers use a mixing machine with a metal spiral blade. The stirring causes the smaller droplets of oil released by the milling process to form larger drops. The larger drops can be separated from the paste more easily. Heating the paste during the malaxation stage increases the yield of oil. However, the use of higher heat affects the taste and decreases shelf life. To compromise, commercial producers usually heat the paste to only about 27 degrees Centigrade. Oxidation also reduces the flavour, so commercial producers may fill the malaxation chamber with an inert gas such as nitrogen so the paste avoids contact with oxygen.

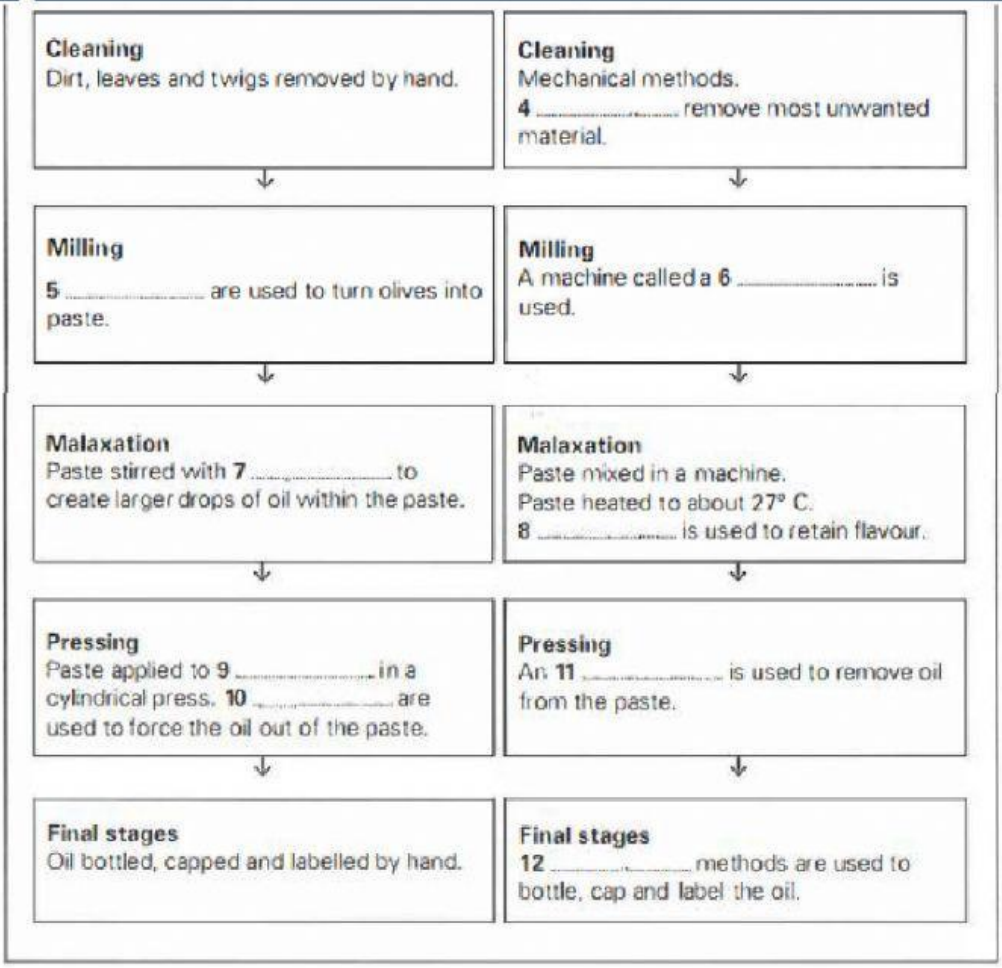
Next, the oil must be separated from the paste. Traditionally, the paste is spread onto fibre discs that are stacked on top of each other in a cylindrical press. Heavy stones are placed on top of the discs, squeezing out the liquid. The oil thus produced is called first press or cold press oil. The paste is then mixed with hot water or steam and pressed once more. The second press oil doesn't have such an intense flavour. The modern commercial method of olive oil extraction uses a machine called an industrial decanter to separate the oil from the paste. This machine spins at approximately 3000 revolutions per minute. The paste and oil are easily separated because of their different densities. This is essentially the same method that is used to separate milk from cream.

After the separation process, the oil is bottled, and the bottle is capped and labelled. Small, traditional producers often do this by hand, while commercial producers use assembly line techniques. The leftover paste is sometimes used for animal feed or it can be further chemically processed to extract more olive oil, which is usually blended with other oils or used for processes such as soap making.

*Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

HOW OLIVE OIL IS MADE

TRADITIONAL METHOD	COMMERCIAL METHOD
Harvesting Manual labourers climb 1 _____ to reach the olives. Picked by hand.	**Harvesting** 2 _____ are used to remove olives from the trees. Collected in 3 _____ on the ground.



<u>Exercise 3.</u> [IELTS Reading: Diagram completion- Table completion] Read the passage and answer the questions.

A Remarkable Beetle

Some of the most remarkable beetles are the dung beetles, which spend almost their whole lives eating and breeding in dung'.

More than 4,000 species of these remarkable creatures have evolved and adapted to the world's different climates and the dung of its many animals. Australia's native dung beetles are scrub and woodland dwellers, specialising in coarse marsupial droppings and avoiding the soft cattle dung in which bush flies and buffalo flies breed.

In the early 1960s George Bornemissza, then a scientist at the Australian Government's premier research organisation, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), suggested that dung beetles should be introduced to Australia to control dung-breeding flies. Between 1968 and 1982, the CSIRO imported insects from about 50 different species of dung beetle, from Asia, Europe and Africa, aiming to match them to different climatic zones in Australia. Of the 26 species that are known to have become successfully integrated into the local environment, only one, an African species released in northern Australia, has reached its natural boundary.

Introducing dung beetles into a pasture is a simple process: approximately 1,500 beetles are released; a handful at a time, into fresh cow pats 2 in the cow pasture. The beetles immediately disappear beneath the pats digging and tunnelling and, if they successfully adapt to their new environment, soon become a permanent, self-sustaining part of the local ecology. In time they multiply and within three or four years the benefits to the pasture are obvious.

Dung beetles work from the inside of the pat so they are sheltered from predators such as birds and foxes. Most species burrow into the soil and bury dung in tunnels directly underneath the pats, which are hollowed out from within. Some large species originating from France excavate tunnels to a depth of approximately 30 cm below the dung pat. These beetles make sausage-shaped brood chambers along the tunnels. The shallowest tunnels belong to a much smaller Spanish species that buries dung in chambers that hang like fruit from the branches of a pear tree. South African beetles dig narrow tunnels of approximately 20 cm below the surface of the pat. Some surface-dwelling beetles, including a South African species, cut perfectly-shaped balls from the pat, which are rolled away and attached to the bases of plants.

For maximum dung burial in spring, summer and autumn, farmers require a variety of species with overlapping periods of activity. In the cooler environments of the state of Victoria, the large French species (2.5 cms long) is matched with smaller (half this size), temperate-climate Spanish species. The former are slow to recover from the winter cold and produce only one or two generations of offspring from late spring until autumn. The latter, which multiplies rapidly in early spring, produce two to five generations annually. The South African ball-rolling species, being a subtropical beetle, prefers the climate of northern and coastal New South Wales where it commonly works with the South African tunnelling species. In warmer climates, many species are active for longer periods of the year.

Dung beetles were initially introduced in the late 1960s with a view to controlling buffalo flies by removing the dung within a day or two and so preventing flies from breeding. However, other benefits have become evident. Once the beetle larvae have finished pupation, the residue is a first-rate source of fertiliser. The tunnels abandoned by the beetles provide excellent aeration and water channels for root systems. In addition, when the new generation of beetles has left the nest the abandoned burrows are an attractive habitat for soil-enriching earthworms. The digested dung in these burrows is an excellent food supply for the earthworms, which decompose it further to provide essential soil nutrients. If it were not for the dung beetle, chemical fertiliser and dung would be washed by rain into streams and rivers before it could be absorbed into the hard earth, polluting water courses and causing blooms of blue-green algae. Without the beetles to dispose of the dung, cow pats would litter pastures making grass inedible to cattle and depriving the soil of sunlight. Australia's 30 million cattle each produce 10-12 cow pats a day. This amounts to 1.7 billion tonnes a year, enough to smother about 110,000 sq km of pasture, half the area of Victoria.

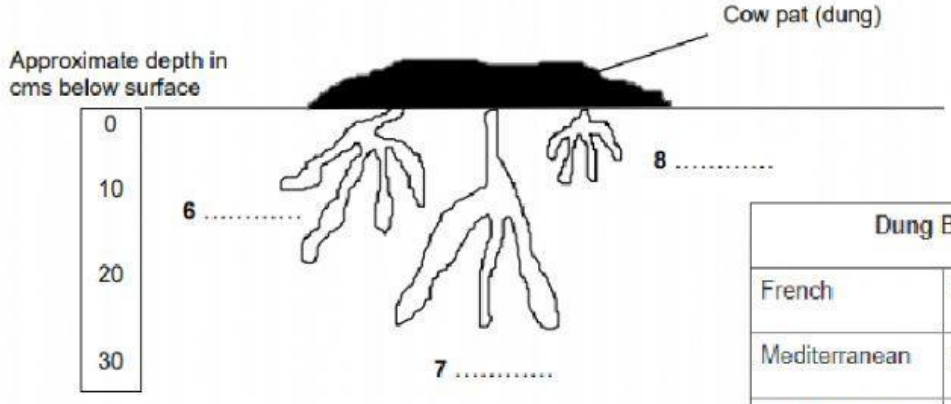
Dung beetles have become an integral part of the successful management of dairy farms in Australia over the past few decades. A number of species are available from the CSIRO or through a small number of private breeders, most of whom were entomologists with the CSIRO's dung beetle unit who have taken their specialised knowledge of the insect and opened small businesses in direct competition with their former employer.

Glossary

1. *dung:- the droppings or excreta of animals*
2. *cow pats:- droppings of cows*

Questions 6-8: Label the tunnels on the diagram below using words from the box.

Write your answers in boxes 6-8 on your answer sheet.



Dung Beetle Types	
French	Spanish
Mediterranean	South African
Australian native	South African ball roller

Question 9-13: Complete the table below.

Choose **NO MORE THAN THREE WORDS OR A NUMBER** for each answer.

Species	Size	Preferred climate	Complementary species	Start of active period	Number of generations per year
French	2.5 cm	cool	Spanish	late spring	1-2
Spanish	1.25 cm	9		10	11
South African ball roller		12	13		