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| YEAR 8 AGRICULUTRE  LESSON ACTIVITIES  **Term 2: Week 1 – Week 5** |

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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 1: Introduction |
| Objectives:   1. History of goat – State the year goats first set foot in Vanuatu and by whom 2. List the importance of raising goat 3. List the factors to consider when starting a goat project 4. Explain why the factors must be considered | |

**Term 2; Week 1 Lesson 1**

1. Copy notes on Unit 1(GOAT notes. Pdf) to your exercise book (page 5 - 6)
2. Read and highlight important points
3. Do Exercise below

Exercise 1

1. Fill in the gaps
   1. In what year did goats first set foot in Vanuatu? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. De Quiros took them ashore at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; however all were taken away again and were later brought back by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in 1840.
2. List down 3 importance of raising goats in Vanuatu.
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List down 5 factors to consider when starting a goat project.
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

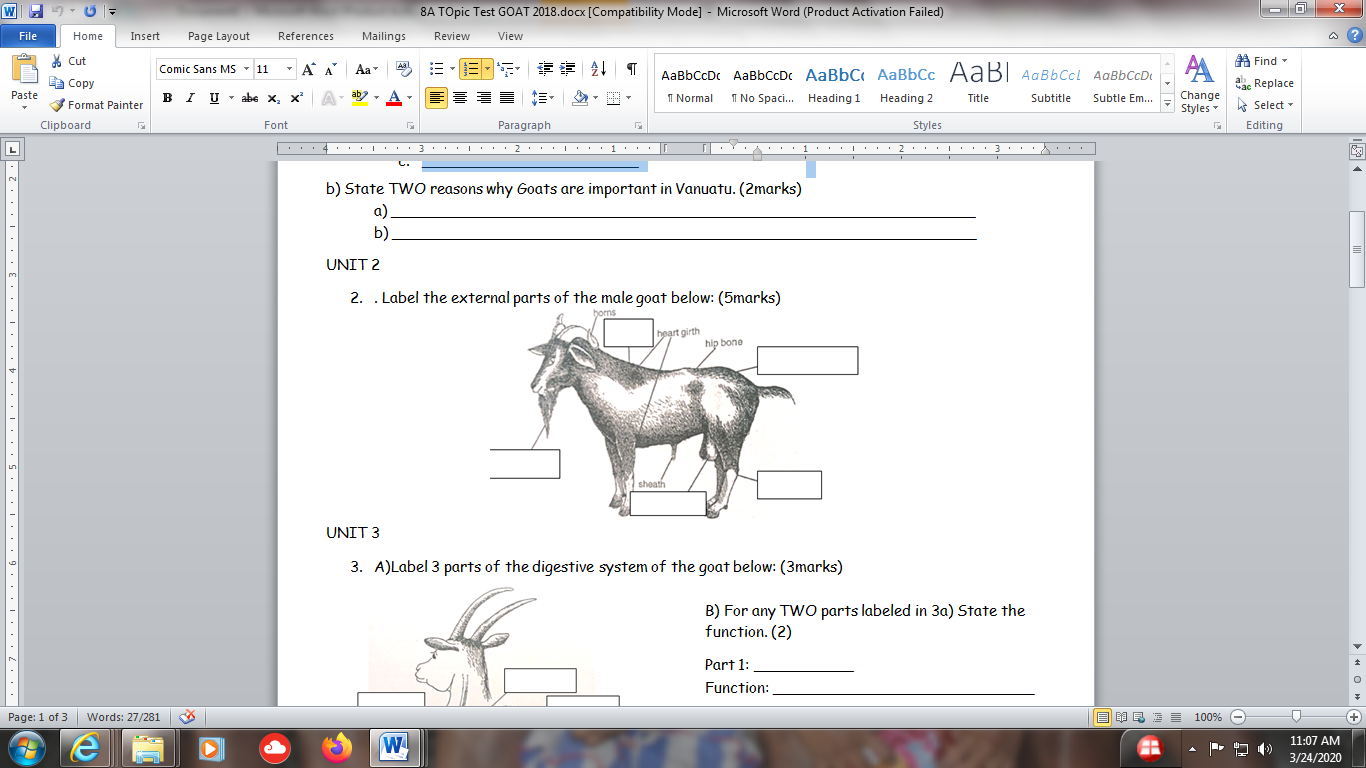
|  |  |
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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 2: External Parts |
| Objectives:   1. Label the external parts of the goat 2. State differences between male and female goat 3. State names given to different categories of goats 4. List down characteristics to look for when selecting an animal for breeding | |

**Term 2; Week 1 Lesson 2**

1. Copy notes on Unit 2(GOAT notes. Pdf) to your exercise book (page 7 - 8)
2. Read and highlight important points
3. Do Exercise below

Exercise 2

1. Label the external parts of the animal below



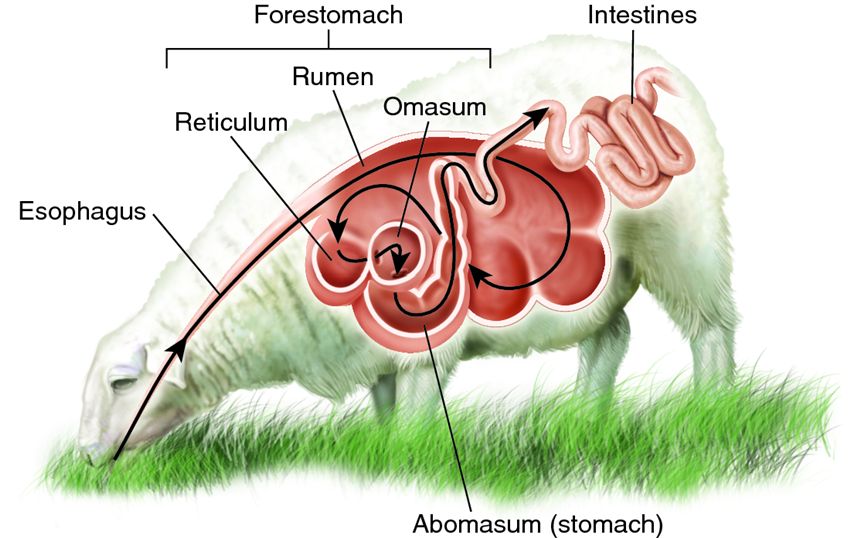
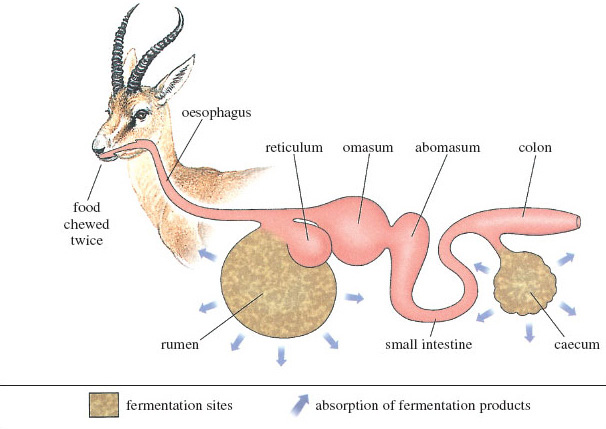
1. What is the name given to a mature female goat? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. When selecting an animal for breeding, list 3 characteristics to look for:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 3: Physiology |
| Objectives:   1. Label the digestive system of the goat 2. State the functions of the digestive parts 3. Label the male and female reproductive system 4. State the functions of the reproductive organs | |

**Term 2; Week 1 Lesson 3 – Week 2 Lesson 4 & 5**

1. Copy notes on Unit 3(GOAT notes. Pdf) to your exercise book (page 9 - 13)
2. Read and highlight important points and practice labelling parts

*Additional notes:*



4 compartments to the stomach

**1st – Rumen** – biggest of the 4 stomachs, it is a zone of storage, absorption and of huge churning actions. The food is digested by millions of microbes

**2nd – Reticulum** – sorts out between the big particles which return in the rumen and cause rumination and small particles which pass directly to the omasum

**3rd – Omasum** – site of concentration of dry matter and water absorption, removes large amount of water from the food

**4th – Abomasum** – true stomach, saliva (gastric juice) added during chewing aids in the process in order to be absorbed in the intestine

1. Do Exercise below

Exercise 3

1. Label the digestive system of the animal below



1. List the 4 stomachs (in the correct order) below
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Label the male reproductive organs below:



4. State the function of the following:

a) Ovary - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Uterus - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Cervix - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Urethra - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 4: Nutrition |
| Objectives:   1. Define digestion 2. Explain the purpose of feeding and dietary requirements 3. List examples of grazing plants for animals | |

**Term 2; Week 2 Lesson 6 – Week 3 Lesson 7/8/9**

1. Copy notes on Unit 4(GOAT notes. Pdf) to your exercise book (page 14 - 16)

*Additional notes*

|  |  |
| --- | --- |
| See the source image | **T – grass** – sugar proteins, fats, minerals and other compounds |
| See the source image | **Signal grass** - sugar proteins, fats, minerals and other compounds  Protein in grass varies from 16 – 28% |
| See the source image | **Pinto peanut** – contains a significant amount of protein, dietary fibre, carboydrates and dietary minerals  Very good source of protein |
| See the source image | **Leucaena** - contains a significant amount of protein, dietary fibre, carboydrates and dietary minerals  Very good source of protein |

1. Read and highlight important points
2. Do Exercise below

Exercise 4

1. Define digestion

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List 2 examples of pasture grass/ legume for goats to graze on
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Energy and protein food are necessary for regular growth of animal. However, at different stages of growth, the amount of energy and protein may differ. Study the table below and answer the questions that follow:

|  |  |  |
| --- | --- | --- |
| Animal | Energy (Kg) | Protein (Kg) |
| Kid | 10 – 20 | 15 – 30 |
| Buck | 15 – 30 | 10 – 20 |
| Doe | 15 – 30 | 10 – 20 |
| Pregnant | 15 - 30 | 15 – 20 |

1. Briefly explain why a Kid will require more protein compare to other animals (2).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Explain why a pregnant animal will need the most energy during the last month of pregnancy (2). \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 5: Breeding |
| Objectives:   1. Identify local goat breeds in Vanuatu 2. Differentiate between local and exotic breeds 3. Describe characteristics to look for when selecting breeding stock 4. State breeding methods 5. Discuss breeding and reproduction in goats (heat periods/ gestation/kidding) | |

**Term 2; Week 4 Lesson 10/11/12**

1. Copy notes on Unit 5(GOAT notes. Pdf) to your exercise book (page 17 - 20)

*Additional notes*

|  |  |
| --- | --- |
| See the source image | **Anglo-Nubian goat**   * large, pendulous ears * result of crossbreeding of British and Indian goat breeds * suitable for all types of domestic/commercial meat, milk and fur production purpose * known for its high butterfat content in milk and prized by producers of fine cheese |
| See the source image | **White sanen goat**   * The hair of the Saanen goat is short and **white** and the skin color should be tan or **white**. * straight or dished face, and erect ears * raised for milk |
| C:\Users\SSAB MEGASTORE\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\download (4).jpeg | **Bristish Alpine goat**   * black all over with white 'Swiss' markings * primarily used for milk production |
| See the source image | **Galla goat**   * breed for small and large-scale farmers * long and tall body, typical of most meat-producing animals is advantageous |
| See the source image | **Boer goat**   * newly introduced breed by the agriculture department * very good for producing meat and mainly used for meat production purpose are called meat goat breeds |

1. Read and highlight important points
2. Do Exercise below

Exercise 5

1. Identify the goat breeds below: (2)

   
\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. State 2 advantages of raising local breeds instead of exotic breeds. (2)

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*3. The oestrus period is every 21 days. When female animal is “on-heat” farmers must artificially inseminate animal for that fertilization can take place. If fertilization is successful, gestation period (period from fertilization to birth/ kidding) is 155 days.*

***Use the calendar below to answer the questions***



A) A female goat will be artificially inseminated on (10th April 2018). If fertilization was successful, when will the female animal give birth? (Date) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (2)

B) If fertilization was not successful, when (date) will the female goat be artificially inseminated again? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (1) – oestrus period

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| **AGRICULTURE** | |
| TOPIC: GOAT | Unit 6: Housing and Fencing |
| Objectives:   1. State importance of proving houses for goats 2. List types of fences and post 3. State importance of fences 4. What is tethering 5. Importance of tethering | |

**Term 2; Week 5 Lesson 13/14/15**

1. Copy notes on Unit 6(GOAT notes. Pdf) to your exercise book (page 21 - 22)
2. Read and highlight important points and practice labelling parts
3. Do exercise below

Exercise 6

1. State 1 importance of proving a house for goats

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1. What is the purpose of proving a fence?

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1. What does “tethering” mean?

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1. Explain why a lot of farmers in the rural areas are using “tethering” method instead of keeping the animals in a fenced area.

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