AGRICULTURAL SCIENCES

Dear Grade 12 Agricultural Sciences learner

Agricultural Sciences seeks to develop your scientific knowledge and approach to relevant agricultural concepts. In Grade 12 the main content topics are Animal Sciences, Agricultural Management and Basic Agricultural Genetics. The content checklist gives a breakdown of these main content topics.

Subject Requirements

- Make sure that you have a textbook, exercise books, calculator, ruler, eraser, pen and pencil.

Content Checklist

Below is a checklist you should use to ensure that you have covered the Grade 12 content in full.

Animal Sciences:

- Animal Nutrition
- The Alimentary canals of farm animals: General structures
- Digestion and absorption of feeds in farm animals
- Components of a feed
- Digestibility of feeds
- Biological value of feeds
- Energy value of feeds
- Supplements
- Types of feeds
- Planning a feeding programme

Animal Production

- Increasing production
- Shelter
- Handling of farm animals
- Behaviour of farm animals

Animal Reproduction, Protection, and Control

- Reproductive organs (male and female)
- Artificial insemination
- Pregnancy and birth
- Milk production
- Diseases and pests

Agricultural Management and Genetics:

- Agricultural Management
- The market
- Methods of marketing
- Pricing, pricing strategies and price determination
- Entrepreneurship
- Business planning

Production Factors and Management

- Land (soil)
- Labour
- The management process
- Capital

Basic Agricultural Genetics

- Heredity, selection and breeding
- Variation
- Mendel's laws
- Mechanisms
- Breeding and selection in plants and animals
- Traditional methods of genetic improvement
- GMO and their purpose

Assessment

School Based Assessments (SBA)

- Task-based assessment includes: a Research Task, Practical Investigation and an Assignment – 60% of your final mark
- Two control tests
- A June examination and a trial examination. The trial examination consists of two papers which have exactly the same content distribution and format as your final examination.

The Final Examination paper at the end of the year (Paper 1 and Paper 2) will amount to 75% of your final mark for the subject and is structured as follows:

Paper 1: Animal Sciences	**150 marks**
Animal Nutrition:	**50 marks**
Animal Production:	**50 marks**
Animal Reproduction, Protection and Control:	**50 marks**

Paper 2: Agricultural Management and Genetics	**150 marks**
Agricultural Management:	**50 marks**
Production Factors and Management:	**50 marks**
Basic Agricultural Genetics:	**50 marks**

Tips for Success

- Ask your teacher for the content framework for Grade 12. This will give you the detailed content. Paste it in your exercise book. Tick off every topic as it is taught in class, and write the relevant textbook page numbers next to the topic.
- Make sure that you prepare the relevant and correct content topics for each of the Agricultural Sciences papers on the day of the examination.
- Prepare yourself to draw and interpret graphs, do calculations (e.g. the coeffiecent of digestibility or nutritive ratio), read case studies or scenarios very carefully, interpret diagrams (also the labeling) and apply your knowledge.
- Use as many past Agricultural Sciences papers as possible to prepare for the examinations.