

2020 REVISED CURRICULUM AND ASSESSMENT PLANS

LIFE SCIENCES GRADE 11

Implementation: June 2020



Presentation Outline

1. Purpose

2. Amendments to the Content Overview for the Phase;

3. Amendments to the Annual Teaching Plan;

4. Amendments School Based Assessment (SBA)

5. Conclusion



1. Purpose

- To mediate the amendments of the trimmed and re-organised 2020 Annual Teaching Plan including School Based Assessment for **Life Sciences, Grade 11** for implementation as stipulated in **Circular S2 of 2020**.
- To ensure that **meaningful teaching proceeds** during the remaining teaching time as per the revised school calendar.
- To assist teachers with **guided pacing and sequencing** of curriculum content and assessment.



1. Purpose (continued)

- To enable teachers to **cover the essential core content /skills** in each grade within the available time.
- To assist teachers with **planning** for the different forms of **assessment**.
- To ensure learners are **adequately prepared** for the **subsequent year/s** in terms of content, skills, knowledge, attitudes and values



2. Amendments to the Content Overview for the Phase

Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life at molecular, cellular and tissue level	Organs: Leaf structure - reorganised (will be taught when transpiration is taught in Strand 2)	Organs: Leaf structure - reorganised (will be taught when transpiration is taught in Strand 2)	This strand is not covered in Grade 11	No amendments



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life at molecular, cellular and tissue level		The chemistry of life: removed the need for fertilisers in over- utilised soils, eutrophication Cell division (mitosis): Remove cancer	This strand is not covered in Grade 11	No amendments

Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life at molecular, cellular and tissue level		Plant tissues: Re-organised (Change the sequence- start with animal tissues, then go to anatomy of dicotyledonous plants- where plant tissues will be covered in context)	This strand is not covered in Grade 11	No amendments



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life at molecular, cellular and tissue level	Animal tissues: Removed application of IKS and Biotechnology Medical biotechnology Cloning Stem cell research	Animal tissues: Removed application of IKS and Biotechnology Medical biotechnology Cloning Stem cell research	This strand is not covered in Grade 11	No amendments

Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life processes in plants and animals	Support and transport systems in plants: Secondary growth, wilting and guttation removed	Support and transport systems in plants: Secondary growth, wilting and guttation removed	Photosynthesis: Topic time reduced to 2 weeks Removed all practical experiments except ONE basic experiment i.e. to show that light is necessary for photosynthesis	Responding to the environment (plants): moved from term 3 to term 4



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life processes in plants and animals	Support systems in animals: Voluntary skeletal muscles (structure) – reduced. Only cover briefly that together with tendons and bones, brings about movement – no need for actual mode of contraction relaxation etc.	Support systems in animals: Voluntary skeletal muscles (structure) – reduced. Only cover briefly that together with tendons and bones, brings about movement – no need for actual mode of contraction relaxation etc.	Animal nutrition: Topic time reduced to 2 weeks. Removed different diets, dietary supplements, malnutrition. tooth decay, effects of alcohol and drug abuse	



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life processes in plants and animals	Transport systems in mammals: Removed mechanisms for controlling cardiac cycle and heart rate(pulse). Removed lymph and diseases of heart and circulatory system	Transport systems in mammals: Removed mechanisms for controlling cardiac cycle and heart rate(pulse). Removed lymph and diseases of heart and circulatory system	Cellular respiration: Topic time reduced to 1 week. Removed all practical experiments except ONE basic experiment i.e. to show that carbon dioxide is produced by living organisms during respiration	

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Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life processes in plants and animals			Gaseous exchange: Removed gaseous exchange requirements, respiratory diseases, effects of smoking and altitude on gaseous exchange, artificial respiration and practical work	

Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Life processes in plants and animals			Excretion: Removed diseases affecting kidney function and practical work	



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Diversity, change and continuity	History of life on earth: Removed fossil tourism and key events in life's history	History of life on earth: Removed fossil tourism and key events in life's history	No amendments	No amendments



Summary: Amendments to the Content Overview for the Phase

Strand	Grade 10 (if started with strand: Life at molecular level)	Grade 10 (if started with strand: Environmental studies)	Grade 11	Grade 12
Environmental studies	Biosphere to ecosystems: Detail on biomes removed	No amendments	Population ecology: Topic time can be reduced to 3 weeks. Removed social organisation and succession	Human impact on the environment (Grade 11): Moved from term 3 to term 4
			Human impact on the environment: Topic time reduced to 5 weeks	



3. Amendments to the Annual Teaching Plan

Summary: Reorganisation of content topics (term 2 - 4)

- **Photosynthesis:** Topic time reduced from 3 weeks to 2 weeks.
- **Animal nutrition:** Topic time reduced from 3 weeks to 2 weeks.
- **Population ecology:** Topic time reduced from 4 weeks to 3 weeks.
- **Human impact on the environment:** Topic time reduced from 7 weeks to 5 weeks.
- **Population ecology:** The subtopic 'Human population' moved from term 3 to term 4.



Summary: Reorganisation of content topics (term 2 - 4)

- **Photosynthesis:** All practical experiments removed except ONE basic experiment (to show that light is necessary for photosynthesis).
- **Animal nutrition:** different diets, dietary supplements, malnutrition. tooth decay, effects of alcohol and drug abuse removed.



Summary: Reorganisation of content topics (term 2 - 4)

- **Cellular respiration:** All practical experiments removed except ONE basic experiment (to show that carbon dioxide is produced by living organisms during respiration).
- **Gaseous exchange:** Comparison between aquatic and terrestrial animals and plants in terms of gaseous exchange requirements, respiratory diseases, effects of smoking and altitude on gaseous exchange, artificial respiration and practical work removed.



Summary: Reorganisation of content topics (term 2 - 4)

- **Excretion in humans:** Diseases affecting kidney function and practical work removed.
- **Population ecology:** Social organisation and succession removed.



Summary: Amendment to the weighting of content topics

- No amendments to content topic weightings in Grade 11



Summary: Content/Topics Amended

Content/Topics	Term	Amendment
Energy transformations to sustain life: Photosynthesis (CAPS pg. 42)	2	Topic time reduced to 2 weeks Remove all practical experiments except ONE basic experiment (to show that light is necessary for photosynthesis)
Animal nutrition (mammals) (CAPS pg. 43)	2	Topic time reduced to 2 weeks. Remove different diets, dietary supplements, malnutrition. tooth decay, effects of alcohol and drug abuse

Summary: Content/Topics Amended

Content/Topics	Term	Amendment
Energy transformations to sustain life: Cellular respiration (CAPS pg. 45)	2	Remove all practical experiments except ONE basic experiment (to show that carbon dioxide is produced by living organisms during respiration)



Summary: Content/Topics Amended

Content/Topics	Term	Amendment
Gaseous exchange (CAPS pg. 46)	3	Remove comparison between aquatic and terrestrial animals and plants in terms of gaseous exchange requirements, respiratory diseases, effects of smoking and altitude on gaseous exchange, artificial respiration and practical work



Summary: Content/Topics Amended

Content/Topics	Term	Amendment
Excretion in Humans (CAPS pg. 48)	3	Remove diseases affecting kidney function and practical work
Population ecology (CAPS pg. 49)	3/4	Topic time reduced to 3 weeks. Remove social organisation and succession
Human impact on the environment (current crises) (CAPS pg. 51)	4	Topic time reduced to 5 weeks.



4. Amendments School Based Assessment (SBA)

Summary: Revised Programme of Assessment

Term 1	Term 2	Term 3	Term 4
PRACTICAL TASK (20%) (minimum 30 marks)	TEST (20%) (minimum 50 marks)	PRACTICAL TASK (20%) (minimum 30 marks)	FINAL EXAMINATION Paper 1 + Paper 2 Duration: 2½ hours for each paper 150 marks for each paper
TEST (20%) (minimum 50 marks)		TEST (20%) (2 x papers of 150 marks each; 2½ hours each)	



Summary: Revised Final Examination Structure

- No changes in Grade 11
- Paper 1 and Paper 2
- 150 marks each paper
- 2½ hours each paper



Summary: Final examination Structure

Format of a Grade 11 examination paper:

Sections	Type of questions	Marks
A	A variety of short answer questions, objective questions for example MCQ, terminology, columns/statement and items, data-response	50
B	A variety of question types. TWO questions of 50 marks each divided into 2 – 4 subsections	2 x 50



Summary: Final Examination Structure

PAPER 1	MARKS	PAPER 2	MARKS
Term 2: Energy transformation to sustain life: Photosynthesis	32	Term 1: Biodiversity and classification of micro-organisms	29
Term 2: Animal nutrition	32	Term 1: Biodiversity in plants and reproduction	29
Term 2: Energy transformation: Respiration	22	Term 1: Biodiversity of animals	18
Term 3: Gas exchange	32	Term 3 and 4: Population ecology	37
Term 3: Excretion in humans	32	Term 4: Human impact on the environment	37
Total	150		150

5. Conclusion

Conclusion

- Photosynthesis reduced to 2 weeks
- Animal nutrition in animals reduced to 2 weeks
- Only one practical to be completed in Cellular respiration
- Comparison between aquatic and terrestrial gaseous exchange in animal and plants removed including respiratory diseases



Conclusion

- Diseases affecting kidney including practical work is removed
- Population ecology is reduced to 3 weeks
- Human Impact on the environment (current crisis) is reduced to 5 weeks
- June examination replaced by test
- Project is replaced with a practical



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