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KERNKONSEPTE / KEY CONCEPTS/ KAKANYOKGOLO

FAKULTEIT / FACULTY/LEGORO: Natuurwetenskappe/ Natural Sciences/Disaense tsa Tihago

SKOOL / SCHOOL: Omgewingswetenskappe / Environmental Sciences/Disaense tsa Tikologo

KONTAKPERSOON / CONTACT PERSON/IKGOLAGANYE LE: Sandra du Plessis

**MODULEKODE EN -NAAM / MODULE CODE AND NAME/KHOUTE LE LEINA LA MODULE: PLKN 111 Plantsitologie en genetika/
Plant cytology and genetics**

Kernbegrip in Afrikaans	Definisie/verklaring in Afrikaans	Key concept in English	Definition/explanation in English	Kakanyokgolo mo Setswaneng	Thanolo/Tlhaloso mo Setswaneng
1. Selmembraan	Die membraan wat die sitoplasma omring en aan die binnekant van die selwand geleë is.	1. Cell membrane	The membrane surrounding the cytoplasm; it is located on the inside of the cell	1. Letha la Sele	Letha le le dikologileng saetopolasemo; le bonwa mo leteng la

			wall.		lebota la sele.
2. Selektief deurlaatbaar	Wanneer 'n membraan net sekere opgeloste stowwe deurlaat.	2. Selectively permeable	When a membrane is permeable to only certain solutes.	2. Tshutlelega ka tthaolo	Fa lethla le kgona go sutlhelwa ke dilo dingwe tse di tthaologang.
3. Organel	'n Gespesialiseerde deel van die sel wat deur 'n membraan omring word.	3. Organelle	A specialized part of the cell surrounded by a membrane.	3. Okanele	Karolo e e kgethegileng ya sele e e dikologilweng ke lethla.
4. Selwand	'n Harde, on/deurlaatbare, beskermende struktuur om 'n plantsel.	4. Cell wall	A hard, non/permeable, protecting structure surrounding a plant cell.	4. Lebota la sele	Popego e e thata, e e sa sutlhelegeng e e dikologileng sele ya dimela.
5. Mikrotubule	'n Filament wat vir die beweging van chromosome in die sel verantwoordelik is en wat die binnestruktuur van flagella beslaan.	5. Microtubule	A filament responsible for the movement of chromosomes in the cell and that occupies the inner structure of flagella.	5. Maekerotshubule	Filamente e e rwalang maikarabelo a go suta ga dikorosome mo seleng tse di nnang mo popegong e e ka fa gare ya folajela.
6. Selsiklus	'n Kombinasie van herhalende prosesse van selgroeï en seldeling.	6. Cell cycle	A combination of repeating processes of cell growth and division.	6. Tshekeletsa ya sele	Kopanyo ya thulaganyo tse di ipoeletsang tsa go gola le go kgaogana ga sele.
7. Interfase	Veskillende fases van selgroeï sonder verdeling.	7. Interphase	Different phases of cell growth without division taking place.	7. Kgokaganokgato	Dikgato tse di farologaneng tsa sele ntle le gore go diragale kgaoganyo epe.

8. Chromosoom	Styfverpakte genetiese materiaal.	8. Chromosome	Tightly packed genetic material.	8. Korosome	Sediro se se kgotlagantsweng thata se se sikanang.
9. Mitose	'n Enkele kernverdeling, waarna die dogterselle dieselfde genetiese materiaal as die ouer besit.	9. Mitosis	A single nuclear division, resulting in daughter cells genetically similar to the parent.	9. Mitose	Kgaoganyo e le nngwe ya kerene, e e felelang e le disele tsa barwadi tse di tshwanang ka losika le tsa tsadi.
10. Meiose	'n Kernverdeling met twee verdelings, waarna die dogterselle geneties verskil en die helfte van die aantal chromosome van die ouer besit.	10. Meiosis	A nuclear division taking place in two divisions, resulting in daughter cells genetically different and with only half the number of chromosomes of the parent.	19. Meiosese	Kgaoganyo ya kerene e e diragalang mo dikgaoganyong tse pedi, go felela e le disele tsa barwadi tse di farologaneng ka losika mme di na le halofo ya palo ya dikosome tsa tsadi fela.
11. Sitokinese	Die verdeling van sitoplasma in twee verskillende dogterselle ná kernverdeling.	11. Cytokinesis	The division of cytoplasm into two different daughter cells after nuclear division.	11. Saetokenesese	Kgaoganyo ya saetopolasome go nna disele tse pedi tse di farologaneng tsa barwadi morago ga kgaoganyo ya kerene.
12. Diploïed	'n Nukleus met twee stelle chromosome.	12. Diploid	A nucleus with two sets of chromosomes.	12. Dipoloete	Kerene e e nang le disete tse pedi tsa dikosome.

13. Haploïed	'n Nukleus met een stel chromosome.	13. Haploid	A nucleus with a single set of chromosomes.	13. Hapoloete	Kerene e e nang le sete e le nngwe ya dikorosome.
14. Homosigoties	Wanneer 'n geen twee van dieselfde allele in 'n diploïede organisme bevat.	14. Homozygous	When a gene has two of the same alleles in a diploid organism.	14. Saekoutennngwe	Fa losika lo na le dialelese tse di tshwanang mo okanesimong ya dipoloete.
15. Heterosigoties	Wanneer 'n geen twee verskillende allele in 'n diploïede organisme bevat.	15. Heterozygous	When a gene has two different alleles in a diploid organism.	15. Saekotontsi	Fa losika lo na le dialelese tse pedi tse di farologaneng mo okanesimong ya dipoloete.
16. Resessief	Wanneer 'n eienskap deur 'n ander eienskap van 'n geen in 'n heterosigote organisme oorskadu word.	16. Recessive	When a trait is masked by the alternative trait of a gene in a heterozygous organism.	16. E e robetseng	Fa boleng jwa mokgwa bo fitlhwa ke boleng jwa mokgwa o mongwe o o refosanang wa losika mo okanesimong e e nang le saekontsi.
17. Dominant	Die eienskap wat 'n ander eienskap van 'n geen in 'n heterosigote organisme kan oorskadu.	17. Dominant	A trait that masks the alternative trait of a gene in a heterozygous organism.	17. Phekeetsi	Boleng jwa mokgwa jo bo fitlhang boleng jwa mokgwa o mongwe wa losika mo okanesimong e e saekontsi.
18. Gametofiet	Die fase van 'n plant se lewensiklus waarin die gamete gevorm word.	18. Gametophyte	The phase of the plants life cycle in which gametes are produced.	18. Keimifaete	Kgato ya tikotshelo ya semela e go ntshiwang digamete mo go yona.

19. Sporofiet	Die fase van 'n plant se lewensiklus waarin die spore gevorm word.	19. Sporophyte	The phase of the plant's life cycle in which spores are produced.	19.Seporofaete	Kgato ya tikotshelo ya semela e go ntshiwang dipeo mo go yona.
20. Bevrugting	Die versmelting van die eiersel met die spermsel om 'n diploïede sigoot te vorm.	20. Fertilisation	The fusion of the egg cell and the sperm cell to form a diploid zygote.	20. Go umisa	Momaganyo ya lee la sele le sele ya sepeme go bopa saekoutu e e dipoloete.