

## KERNKONSEPTE / KEY CONCEPTS/ KAKANYOKGOLO

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

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

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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
<b>1. Selmembraan</b>	Die membraan wat die sitoplasma omring en aan die binnekant van die selwand geleë is.	<b>1. Cell membrane</b>	The membrane surrounding the cytoplasm; it is located on the inside of the cell wall.	<b>1. Letha la Sele</b>	Letha le le dikologileng saetopolasemo; le bonwa mo leteng la lebota la sele.
<b>2. Selektief deurlaatbaar</b>	Wanneer 'n membraan net sekere opgeloste stowwe deurlaat.	<b>2. Selectively permeable</b>	When a membrane is permeable to only certain solutes.	<b>2. Tshutlelega ka tthaolo</b>	Fa lethale kgona go suthelelwa ke dilo dingwe tse di tthaologang.

<b>3. Organel</b>	'n Gespesialiseerde deel van die sel wat deur 'n membraan omring word.	<b>3. Organelle</b>	A specialized part of the cell surrounded by a membrane.	<b>3. Okanele</b>	Karolo e e kgethegileng ya sele e e dikogileng ke lethla.
<b>4. Selwand</b>	'n Harde, on/deurlaatbare, beskermende struktuur om 'n plantsel.	<b>4. Cell wall</b>	A hard, non/permeable, protecting structure surrounding a plant cell.	<b>4. Lebota la sele</b>	Popego e e thata, e e sa suthelegeng e e dikogileng sele ya dimela.
<b>5. Mikrotubule</b>	'n Filament wat vir die beweging van chromosome in die sel verantwoordelik is en wat die binnestruktuur van flagella beslaan.	<b>5. Microtubule</b>	A filament responsible for the movement of chromosomes in the cell and that occupies the inner structure of flagella.	<b>5. Maekerotšhubule</b>	Filamente e e rwalang maikarabelo a go suta ga dikorosome mo seleng tse di nnang mo popegong e e ka fa gare ya folajela.
<b>6. Selsiklus</b>	'n Kombinasie van herhalende prosesse van selgroeï en seldeling.	<b>6. Cell cycle</b>	A combination of repeating processes of cell growth and division.	<b>6. Tshekeletsa ya sele</b>	Kopanyo ya thulaganyo tse di ipoeletsang tsa go gola le go kgaogana ga sele.
<b>7. Interfase</b>	Veskillende fases van selgroeï sonder verdeling.	<b>7. Interphase</b>	Different phases of cell growth without division taking place.	<b>7. Kgokaganokgato</b>	Dikgato tse di farologaneng tsa sele ntle le gore go diragale kgaoganyo epe.
<b>8. Chromosoom</b>	Styfverpakte genetiese materiaal.	<b>8. Chromosome</b>	Tightly packed genetic material.	<b>8. Korosome</b>	Sediro se se kgotlagantsweng thata se se sikanang.

<b>9. Mitose</b>	'n Enkele kernverdeling, waarna die dogterselle dieselfde genetiese materiaal as die ouer besit.	<b>9. Mitosis</b>	A single nuclear division, resulting in daughter cells genetically similar to the parent.	<b>9. Mitose</b>	Kgaoganyo e le nngwe ya kerene, e e felelang e le disele tsa barwadi tse di tshwanang ka losika le tsa tsadi.
<b>10. Meiose</b>	'n Kernverdeling met twee verdelings, waarna die dogterselle geneties verskil en die helfte van die aantal chromosome van die ouer besit.	<b>10. Meiosis</b>	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.	<b>19. Meiosese</b>	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 dikorosome tsa tsadi fela.
<b>11. Sitokinese</b>	Die verdeling van sitoplasma in twee verskillende dogterselle ná kernverdeling.	<b>11. Cytokinesis</b>	The division of cytoplasm into two different daughter cells after nuclear division.	<b>11. Saetokenesese</b>	Kgaoganyo ya saetopolasome go nna disele tse pedi tse di farologaneng tsa barwadi morago ga kgaoganyo ya kerene.
<b>12. Diploïed</b>	'n Nukleus met twee stelle chromosome.	<b>12. Diploid</b>	A nucleus with two sets of chromosomes.	<b>12. Dipoloete</b>	Kerene e e nang le disete tse pedi tsa dikorosome.
<b>13. Haploïed</b>	'n Nukleus met een stel chromosome.	<b>13. Haploid</b>	A nucleus with a single set of chromosomes.	<b>13. Hapoloete</b>	Kerene e e nang le sete e le nngwe ya dikorosome.
<b>14. Homosigoties</b>	Wanneer 'n geen twee	<b>14. Homozygous</b>	When a gene has two of	<b>14.</b>	Fa losika lo na le

	van dieselfde allele in 'n diploïede organisme bevat.		the same alleles in a diploid organism.	<b>Saekoutenngwe</b>	dialelese tse di tshwanang mo okanesimong ya dipoloete.
<b>15. Heterosigoties</b>	Wanneer 'n geen twee verskillende allele in 'n diploïede organisme bevat.	<b>15. Heterozygous</b>	When a gene has two different alleles in a diploid organism.	<b>15. Saekotontsi</b>	Fa losika lo na le dialelese tse pedi tse di farologaneng mo okanesimong ya dipoloete.
<b>16. Resessief</b>	Wanneer 'n eienskap deur 'n ander eienskap van 'n geen in 'n heterosigote organisme oorskadu word.	<b>16. Recessive</b>	When a trait is masked by the alternative trait of a gene in a heterozygous organism.	<b>16. E e robetseng</b>	Fa boleng jwa mokgwa bo fitlhwa ke boleng jwa mokgwa o mongwe o o refosanang wa losika mo okanesimong e e nang le saekontsi.
<b>17. Dominant</b>	Die eienskap wat 'n ander eienskap van 'n geen in 'n heterosigote organisme kan oorskadu.	<b>17. Dominant</b>	A trait that masks the alternative trait of a gene in a heterozygous organism.	<b>17. Phekeetsi</b>	Boleng jwa mokgwa jo bo fitllhang boleng jwa mokgwa o mongwe wa losika mo okanesimong e e saekontsi.
<b>18. Gametofiet</b>	Die fase van 'n plant se lewensiklus waarin die gamete gevorm word.	<b>18. Gametophyte</b>	The phase of the plants life cycle in which gametes are produced.	<b>18. Keimifaete</b>	Kgato ya tikotshelo ya semela e go ntshiwang digamete mo go yona.
<b>19. Sporofiet</b>	Die fase van 'n plant se lewensiklus waarin die spore gevorm word.	<b>19. Sporophyte</b>	The phase of the plant's life cycle in which spores are produced.	<b>19. Seporofaete</b>	Kgato ya tikotshelo ya semela e go ntshiwang dipeo mo go yona.

<b>20. Bevrugting</b>	Die versmelting van die eiersel met die spermsel om 'n diploïede sigoot te vorm.	<b>20. Fertilisation</b>	The fusion of the egg cell and the sperm cell to form a diploid zygote.	<b>20. Go umisa</b>	Momaganyo ya lee la sele le sele ya sepeme go bopa saekoutu e e dipoloete.
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