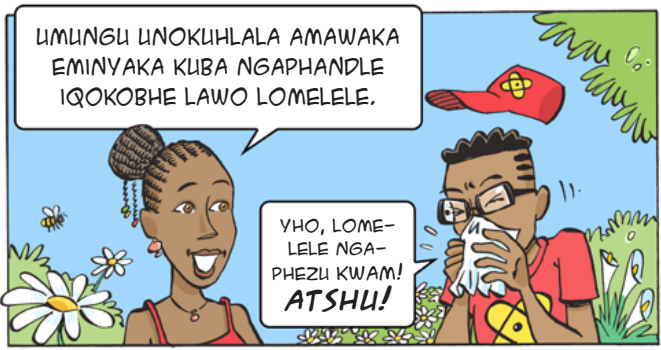


SCIENCE SPAZA

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UMNGU ONAMANDLA, ONAMANDLA AMAKHULU!

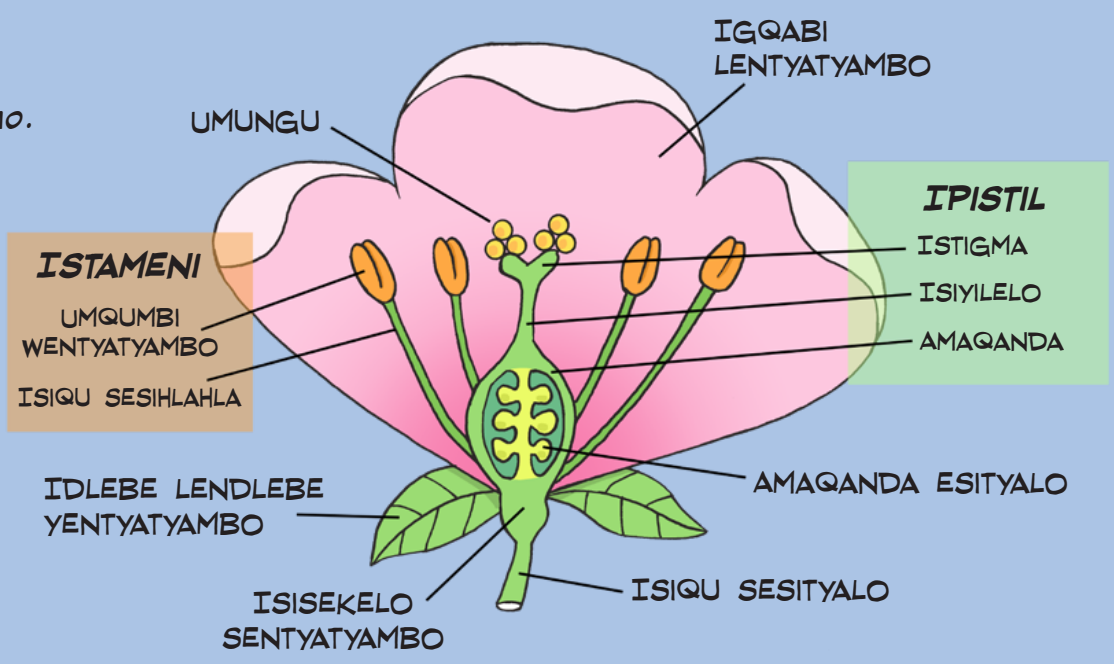


UMUNGU WAKUDALA

Umungu ngumgubo ocelekileyo owenziwa zezinye izityalo xa zivelisa iziqhamo.

Inzululwazi yoFundo ngomungu kuthiwa yi-palynology; ingakumbi umungu wakudala kakhulu ophele ungena emanzini okanye emhlabeni.

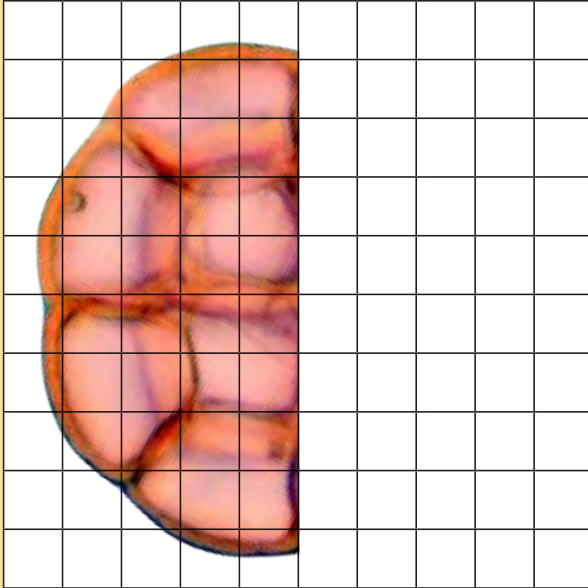
Iinzululwazi zisebenzisa umungu ukuze sifunde ukuba ezisingqongileyo zazinjani kudala.



UMUNGU OMHLE

Ezinye iintlobo ezithile zenkonzo zomungu ziyalingana. Oku kuthetha ukuba elinye icala leenkonzo lifana nqwa necala elingasemva nakumgca ophakathi. Lo mgca kuthiwa yi-axis of symmetry.

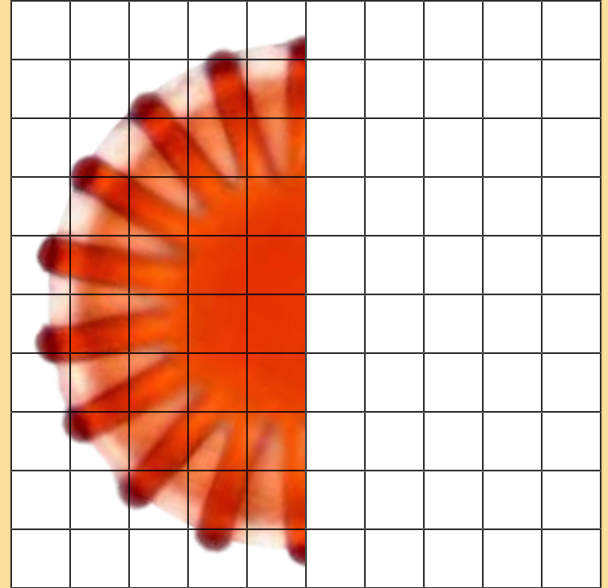
UMNGA (UMTHI WOMNGA)



YINTONI OMELE UYENZE?

Zoba icala elingasekunene leenkonzo zomungu kule dayagram. Sebenzisa imigca ukuze ikukhokhele ukuze icala elingasekunene necala elingasekhohlo leenkonzo lilingane.

UMKHOMBA (SEPTEMBER BUSH)



KUTHENI IBALULEKILE INDLELA OME NGAYO UMUNGU?

Ufundo nzulu lwendlela iinkozo zomungu ezime ngayo kuthiwa yi-pollen morphology. Umungu ungamila ngokuvu, ube nxa-ntathu, ube nawundi okanye umile ngezinye iindlela.

Isityalo ngasinye sineenkonzo zomungu ezimile ngendlela efana yodwa. Ngokujonga indlela omile ngayo umungu, abaphandi bangatsho ukuba uvela kwesiphi istyalo.

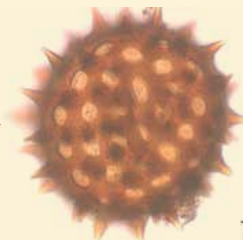
Umungu wakudala unika abaphandi uFiFi malunga nendawo ofunyenwe kuyo loo mungu. Olu FiFi sithi zizikhombisi. Ngokomzekelo, umungu wombona ingasisikhombisi sokuba loo ndawo yayiyindawo yolimo.



IFANGASI YE-FERN
ENGUNXA-NTATHU
KUNYE NEMIGCA
EMITHATHU

UKHUMBULE,
1 μ m ILINGANA
NEMILIMITHA
EYAHLLULWE
KALIWAKA

UKHOZO LOMUNGU
WENTYANTYAMBO EBIZWA
NGOKUBA YIIPOMOEA



200 μ m

UKHOZO LOMUNGU OLUVELA
KWENYE YEENTYANTYAMBO
EZIYINXALENYE YEERICA

Iintlobo ngeentlobo zeentyantyambo zineenkonzo zomungu ezimile ngeendlela ezahlukeneyo.
Iifoto: Professor T. Hill



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ABAPHICOTHI BOMUNGU

Abaphandi beUniversity of KwaZulu-Natal baye babambisana neUniversity of Greifswald yaseJamani kwiprojekti ebizwa ngokuba "yiTracing Human and climate impacts in South Africa" (TRACES).



Njengoko abaphandi beKwaZulu-Natal baye babambisana neUniversity of Greifswald yaseJamani kwiprojekti ebizwa ngokuba "yiTracing Human and climate impacts in South Africa" (TRACES).

Umungu womelele kakhulu kangangokuba ungahlala ubonakala naseMva kwama-wakawaka eminyaka.

Le nto ibangele ukuba iqela leTRACES likwazi ukubona ukuba zeziphi izityalo ezikhulileyo emva kokuba umungu uwele edakeni laza labona indlela indalo etshintsha ngayo ekuhambeni kwexesha.

Abaphandi beTRACES bathatha isampuli yodaka kumfula oseKZN.
Umfoti: Professor T. Haberzettl

CAREERS: DIBANA NE-ECOLOGIST



Salona Reddy

Kwindawo ezihlala zinamanzi, **uSalona Reddy** usoloko ekulungele ukuzihlola! Izifundo zakhe zesayensi yendalo nophando lwepalaeoecology lumenza azi ukuba zeziphi izityalo nezilwanyana ezisemgciphekweni aze akwazi nokufumanisa izilwanyana ebezingaziwa.

Ukuba unomdla ekwenzeni umsebenzi kaSalona unokufundela ezi zifundo:

- Geography
- Geology
- Botany
- Melissopalynology (izifundo zepollen kubusi)
- Aerobiology (izifundo zezinto ezisemoyeni ezibonakala)
- Forensics
- Palynostratigraphy (ukufunda ngamafutha eemoto)

I-Palaeoecology zizifundo zezityalo, indalo nezilwanyana zakudala.

IILINKI ZEZI ZIFUNDO

Life Sciences FET Gr 10-12

- Imbali yobomi basemhlabeni: ukuqonda iiFosili
- Ukwahluka kwezityalo: iindlela ezizala ngazo iintyantyambo

Natural Sciences SP Gr 7-9

- Ukwabelana kwesondo kwezityalo ezibizwa ngokuba ziiAngiosperm: Umungu

Mathematics IP Gr 4-6

- Symmetry

Knowledge is Ncah!



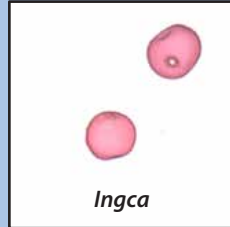
UMDLALO WOKUBA YINGCALI YOMUNGU

DIBANISA UMUNGU
NGAMNYE
NESITYALO
OPHUMA KUSO
LIZE ULANDELE
UMGCA UKUZE WAZI
UKUBA SESIPHI ESO
SITYALO.



Impendulo:
I-Protea - B - 1
Ingca - D - 3
I-Yellowwood - A - 2
Umbona - C - 4

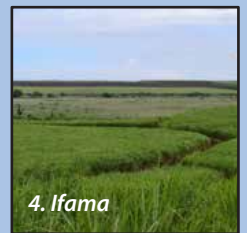
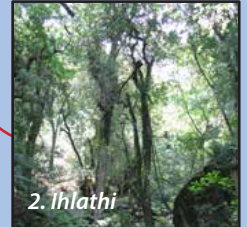
UMUNGU



ISITYALO



UHLOBO LWEVEJI



QALISA ISIPHAZA SAKHO SESAYENSI

Ngaba ufuna ukuqalisa iqela
lesayensi esikolweni sakho?
Skena le khowudi ukuze ubhalise
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SIFUNA UKUVA ULUVO LWAKHO!

SINGATHANDA UKUBONA
IFOTO YAKHO UPHETHE
INTYANTYAMBO ENOMUNGU.
THUMELA IIFOTO ZAKHO
NGOWHATSAPP KU-
076 173 7130.



Olu xwebhu luqulethe izinto ezifunyaniswe ngabathathi-nxaxheba abasebenze nzima beTrain-ME 2023 summer school. I-Train-ME luqesho oluveliswe yiprojekti yaseJamani naseMzantsi Afrika ebizwa ngokuba "yiTracing Human and Climate impacts in South Africa" (TRACES), ubambiswano lwabaphandi basemhlabeni wonke abaxhaswa "yiScience Partnerships for the Adaptation to Complex Earth System Processes" (SPACES II) neyinkqubo yeGerman Federal Ministry of Education and Research (BMBF).



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