

SCIENCE SPAZA

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INZULULWAZI NGEENTSALELA: INTSOMI NGODAKA



AMABALI NGEENTSALELA

IMPAHLA ECOLEKILEYO EFANA NESANTI KUNYE NOMUNGU IQULATHE IMIQONDISO ESUKA KOKUSINGQONGILEYO MALUNGA NEMVELAPHI YAKO. NJENGOKUBA IQOKELELANA EMHLABENI, YENZA OKANYE ISHIYA IINTSALELA. IZAZINZULU ZOMHLABA ZIGRUMBA KWIINDAWO EZINODAKA UKUQOKELELA ISAMPULI YEENTSALELA.



ELEBHU SIFUNDA UMALEKO NGAMYE WEENTSALELA OKU KWENCWADI, UKUSUKELA KOLONA DAKA LUDALA EMAZANTS I UKUYA KOLONA DAKA LUTSHA NGAPHEZULU, OKWE KWEBALI, UKUSUKELA EKUQALENI UKUYA EKUGQIBELENI. OKU SIKWENZELA UKUFUNDA MALUNGA NENKANGELEKO YOKUSINGQONGILEYO KWIXESHA ELIDLULILEYO.

Photo:
Dr. Jemma Finch



Knowledge is Ncah!



ZIHLUKUHLE NGEENTSALELA!



YENZA UVAVANYO
UKUBONA UKUBA
YINTONI EKWIINTSALELA
ESIKOLWENI SAKHO
OKANYE KOWENU.



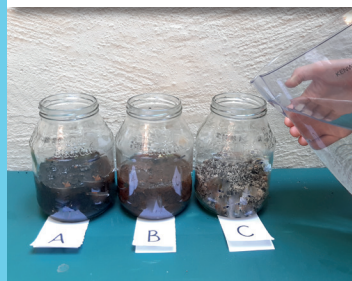
UZAKUDINGA OKU:

- IGLASI OKANYE IJAGI ZEPLASTIKI EZIKHANYAYO, EZINEZIVALO
- UDAKA OKANYE UMHLABA OSUKA KWIINDAWO EZIMBALWA EZAHLUKENEYO
- AMANZI
- INCWADANA, IRULA KUNYE NE INKI YOKUBHALA

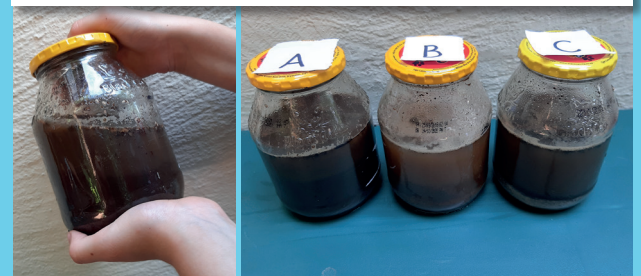
- 1** GALELA UDAKA OKANYE UMHLABA KWI JAGI.



- 2** GALELA AMANZI. GCWALISA ZONKE IJAGI NGOKULINGANAYO.



- 3** VALA IZICIKO ZE UHLUKUHLE. ZINOMBOLE IJAGI UZIBEKE ZIHLALE IXESHA ELINGAKA NGEEYURE EZINGAMASHUMI AMABINI ANESINE (24).



- 4** **NGOSUKU OLLULANDELAYO:**
JONGA UMALEKO ODALEKILEYO KWI JAGI NGANYE. QHATHANISA OKUFUMENEYO OKANYE IISAMPULI NGOKWAHLUKANA KWEZI JAGI. INGABA UYAWUBONA UMAHLIKO? INGABA UKUJIYA KOKO UKUFUMENEYO OKAYE IISAMPULI KOOMALEKO EYAHLUKENEYO KWIJAGI KOHLIKILE?

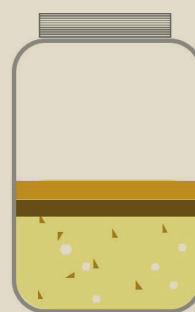


INGABA KWENZEKANI APHA?

Emveni kweeyure ezingamashumi amabini anesine, iisampuli zizakujika zikunike umgangatho wodongwe, oworhexe kunye nowesanti. Ukujiya komgangatho ngamnye kwii sampuli zakho kuzo kufuneka imfanekiso-ngqondweni okanye intlwa yokuba loluphi uhlobo lweentsalela onalo.

Izazinzulu okanye iinzululwazi zomhlaba zisebenzisa iindlela ezahlukeneyo, ngokufana novavanyo olu ugqiba kulenza, ukufunda malunga neentsalela kunye nenkangeleko yendawo engqongileyo, kwixesha elandulelayo okanye elidlulileyo.

Ingaba ubungakanani bamagaga weentsalela kusixelela ntoni? Amagaga amakhulu afana nesanti okanye igilabile anobunzima kwaye ahlambekileyo ngamanzi, axelela izazinzulu okanye iinzululwazi malunga nobunjani bemvula eyayisina ngeeloxesha.



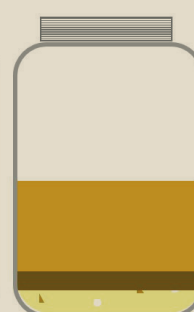
ISANTI

0-10% UDONGWE
0-10% INTLENGA
80-100% ISANTI



UDAKA

10-30% UDONGWE
30-50% INTLENGA
25-50% ISANTI



UDONGWE

50-100% UDONGWE
0-45% INTLENGA
0-45% ISANTI

KEY

- = UDONGWE
- = INTLENGA
- = ISANTI



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UKULUNGISELELA IKAMVA NGOKUJONGA IXESHA ELIDLULILEYO

Izazinzulu okanye iinzululwazi eziphanda ngexesha elidlulileyo ziyakwazi ukwakha imiFanekiso ebonakalisa ukuba indawo yayikhangeleka njani kwixesha elidlulileyo, ukwenzela ukubona ukuba itshintshe njani ngokuya kuhamba ixesha.

Oku kubalulekile ukusancedisa silungiselele utshintsho kujikajiko lwemozulu kunye nemicelimngeni esijongene nayo ngelithuba.



Photo: Magnus Schult



Photo: Torsten Haberzettl

IMISEBENZI



UDarryl Dreyer

ngumhlohli wezendalo e West Coast Fossil Park.

UDarryl unceda iindwendwe eziza kule paki ukuba ziqonde ukuba ziintoni iifosili, zenzeka njani, kwaye singafunda ntoni na kuzo. "Xa siqonda ukuba sinxulumene njani nokusingqongileyo isinika ukukhathala okanye inkathalo komnye-nomye kunye nendalo".



AMAKHONKCO E KHARITYHULAM

- **Inzululwazi ngobomi amabanga 10-12**
Iyantlukwano, utshintsho nenkqubela: Imbali ngobomi emhlabeni;
Izifundo zokusingqongileyo:
IBiosphere kunye ne nkqubo yempilo
- **Inzululwazi ngendalo amabanga 7-9**
Inkqubo yomhlaba: Umjikelo wamatye; Umoya

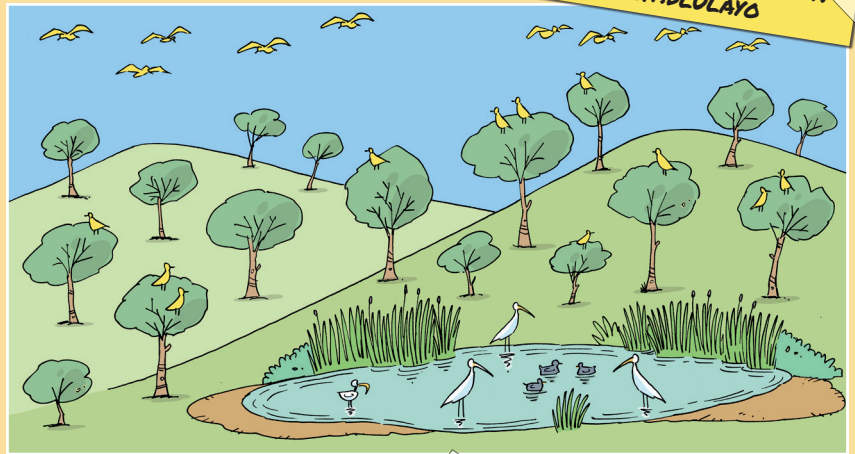
Knowledge is Ncah!



CHONGA IYANTLUKWANO

INDAWO ZIYATSHINTSHA NGOKUYA KUHAMBA IXESHA. INGABA UNGAKWAZI UKUCHONGA IYANTLUKWANO PHAKATHI KWALEMIFANEKISO MIBINI?

YICINGE LENTO:
YIBANENGXOKO YEQELA
MALUNGA NOKO OCINGA
UKUBA KWENZA UTSHINTSHO
KUMFANEKISO.



KWIMINYALA ELIWA
EYADLULAYO



AMAWAKA AMABINI ANAMASHUMI
AMABINI ANESIBINI

Iimpendulo: 1. Iitelele kunye nomhlaba wokwelisa ezolimo; 2. Iimithi embalwa; 3. Iintaka ezimbale emoyeni kunye nasemithini; 4. Iintaka zamanzu zahamba; 5. Ukungqongophala kwamanzi kunye nodaka olunzi; 6. Uhlaba olutsha lwezityalo kufutshane nendawo yokwelisa ezolimo kunye nasemanzini.

ZIQALELE EYAKHO IVENKILE YENZULULWAZI

Uyafuna ukuqala iqela lenzululwazi esikolweni sakho? Sithumelele ezinkcukacha zilandelayo, ivenkile yenzululwazi izakuxhulumana nawe.

Isikolo: _____

Igama: _____

Inimbolo yomnxeba: _____

Idilesi ye emeyili: _____

Idilesi yokuhlala: _____

Ndwendwela u www.sciencespaza.org, Imeyili info@sciencespaza.org, Thumela umyalezo okanye u wathsaphu ku 076 173 7130 okanye usibhalele incwadi ku PO Box 22106, Mayor's Walk, 3208.

ISILUMKISO SOKHUPHISWANO

SITHUMELELE IZITHOMBE ZEENTSALELA ZOVAVANYO KUNYE NEENGINGA ZAKHO NGOTSHINTSHO KOKUKUNQONGILEYO NGOKUYA KUHAMBA IXESHA. THUMELA IIMPENDULO ZAKHO KWIKHASI LONXIBELELWANO U WHATSAPP KU 076 173 7130 UZIBONE USETHUBENI LOKUPHUMELELA AMABHASO KANOKUTSHO.*

*Amangenelo amahlanu anqenqeka phambili ayakukhethwa nje ngaphumeleleyo ze anikwe ibhaso.



Eliphepha lomsebenzi limele imizamo yembumba eqokelelwe ze yadityaniswa ngabathathi-nxaxheba be Train-German connect 2021 summerschool. Train-ME2 connect linyathelo loqeqesho oluphuma ku German-South Africa Project " Umkhondo weempembelelo zoluntu kunye notshintsho kwimozulu e Mzantsi Afrika" (TRACES), kunye ne namazwengamazwe ngaphakathi koqeqesho nentsebenziswano kunye nabaphandi abaxhaswe phantsi kwe "ntsebenziswano yeenzululwazi eyenzelwe ukuziqhelanisa neenkqubo ezinobuzaza zomhlaba" (SPACES II) Inkqubo ye German Federal Ministry of Education.



CENTRE FOR SCIENCE & SOCIETY IN AFRICA



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