

Ucwawgciso Sifundo Yesithanhu Iziqhelaniso

IZIPHUMO EZIMANDUNDU

CO#3: Zilawule uzilungiselele nezenzo zakho ngentembeko nangesiphumezo.

CO#4: Qokelela, calula, lungiselela uxabise mandundu iinkcazelo.

IZIPHUMO ZEMFUNDO

LO#2: Umfundi uza kukwazi, abenakho ukuqonda nokusebenzisa ulwazi lwenzululwazi, olwenkcubekho, nolwemimmandla.

Ubuchule benkqubo:

- Uqwalaselo nokhumbulo.
- Uvavanyo-qondo (comprehension) nokuqonda

AMABANGA OXABISO

- Ukhumbulo lwazi olunentsingiselo xa kudingekile.
- Uhlahlelo lwazi ukuze kubenonciphiso bunzima boqondo nokhangelo zimpinda.

UKUFUNDISA KWESIFUNDO

Phinda njonge inkcukacha zemvelaphi yotshintsho simo ezifumaneka kwiphepha lwama - 20.

Xoxa nabafundi:

- Izilwanyana zakhiwe ngeentlobo ngeentlobo, zingalingani ngobukhulu zikwa mibala-bala. Ezi zantlukwano zizo ezenza ezintlobo-ntlobo okanye eso silwanyana solohlobo sezilwanyana sibe notshintsho simo ukuze siphumelele kwindawo yokuhlala eyahlukileyo.

Sebenzisa esisenzo silandelayo ukuqala ingxoxo nabafundi ngotshintsho simo. Ukunceda abafundi babenokuqonda intlobo ezininzi zeziphilayo ezifumaneka kwindawo, yenza uluhlu lweentlobo-ntlobo zezilwanyana ngemibala nezakhiwo ngolu luhlu lungezantsi. Cela abafundi baxele intlobo-ntlobo zezilo zibe ninzi kangangoko benako. Eminye imizekelu ikuluhlu olungezantsi. Buza abafundi ukuba bacinga ukuba kutheni ezizilwanyana zinezintshintsho-simo. Zama ukubonakalisa ukungqamalana kweendawo zokuhlala.

Mnyama (oonombombiya (penguins), iinqu ezimnyama)
Ngwevu (Indlovu)
Luhlaza (Izityalo, iintethe)
Amabala-bala (ingwenkala, ingwe enamabala, indlula-mthi)
Imigca (Ingwe, zebra)
Amaphiko (iintaka)
Uboya (isidalwa esanyisayo)
Impefumla zentlanzi (intlanzi)
Umsila omfutshane (inja yehlathi)
Umsila omde (Ingwenkala, ingonyama)
Imilenze emifutshane (ihagu yehlathi)
Imilenze emide (Indlula-mthi, inyamakazi)
Ukungabikho kwemilenze (iinyoka, iminenga (whales))



YINTOMI ISIQHELAMISO?

Izilwanyana zidalelwe ukuphila kwiindawo zokuphila ezithile. Jengo hlobo esinokuzama ukuqashisela iindawo apho abantu beentlanga ngeentlanga baphuma khona ngokujonga isinxibo sabo, intetho nangendlela abaziphantha ngayo, sigaphawula lukhulu ngendawo isilwanyana esiphila kuyo ngokujonga indlela esiphatha ngayo nangenkangeleko. Ngengcaciso elula isiqhelaniso bubuni okanye indlela yokuziphatha okuza kunceda isilwanyana ngendlela yokuphila kuloo ndawo siphila kuyo. Ezona zineziquhelaniso ezilulo kwizimo eziphila phantsi kwazo zezona zinethuba elihle lokuphila zibe nokuzala ezinye. Umzekelo, thatha ingwenkala enamabala amnyama. Lamabalaanceda ekuyifihleni emithunzini yamatyholo nemithi, oku kwenza ukuba kubunzima kwezinye izizingeli, eziyingozi kwimpilo yeengwenkala, ukuyibona.

Sebenzisa isifundo esilandelalayo ukufundisa abafundi ukubaluleka noncedo lotshintsho-simo, usebenzisa ingwenkala neentshintsho simo sayo.

YAKHA INGWENKALA

Qondisisa amalungu omzimba ekwakunye neziqhelaniso zengwenkala ezenza ukuba ibe nakho ukubaleka ngamendu aphezulu kunye nabafundi. Ngokusebenzisa uluhlu lokunikwe ngezantsi kwakunye namacwecwe okwaziwayo ngeziqhelaniso nezizobo, xoxa nabafundi ezo ziqhelaniso zininzi zengwenkala. Ecaleni kwezo zinto zinikiweyo ngezantsi lilungu lomzimba nesiqhelaniso elisimeleyo. Jongisisa okunikiweyo ucacise ukuba kutheni leyo naleyo iyinto ebalulekileyo ukuyi bandakanya kwingwenkala. Kungaluncedo ukuxhoma umfanekiso wengwenkala ukunceda abafundi bakwazi ukuba nomfanekiso-ngondweni welungu ngalinye.

OKUNIKIWEYO	ILUNGU LOMZIMBA	IZIQHELANISO
Ingwelo-moya yephepha	Umzimba omde onqinileyo	Ulwakhiwo olungaphikisi moya
Izihlangu zokubaleka	Amazipho angabuyi ngokupheleleyo	Ubambelelo-mhlaba xa ibaleka
Iintshazi ezide, eziphakathi nezimfutshane	imilenze	imilenze emide ukwenzela igqibe umhlaba omkhulu xa ibaleka
Ucingo (wire)	umqolo othambileyo	Ukunyusa umhlaba ogqitywayo xa ibalekayo
Umfanekiso wengwenkala	Umzimba / Ubugoxo	Unqinile ulula / khaphu-khaphu
Umtya omde	umsila	Ugqina ukngawi / ukuma
Intliziyo eyenzwe ngephepha	Intliziyo enkulu eyomeleleyo	Eyokugqithisa umongo moya (oxygen)
Izibonisi-kude (binoculars) ungasebenzisa amgobho-gobho ee toilet paper endaweni yazo zibotshelelwe	amehlo	Ukubona kumgama oyi-5km
Iindondo (sunglasses)	Imigza eminyama ebale ukususe emehlweni ukuya apho uphela khona umlomo okweenyembezi	Ukukhusela amehlo elangeni

Iinqwelomoya Yephepha:

Yigibisele emoyeni uyibukele xa ibhabha. Ingwenkala inomzimba omde obhityileyo ukunciphisa impikiswano nomoya ngelixa ibaleka, njenge nqwelomoya ibhabha lula emoyeni. Shwabanisa iphepha ulijule, alisokuze libhabhe njenge nqwelomoya. Izilwanyana ezihamba lula emoyeni ngengeentaka okanye njengentlanzi emanzini zi-“streamlined”. Imizimba yeengwenkala emide, ebhityileyo zinzceda ekubalekeni ngamendu

Isihlangu sokubaleka (iteki):

Yintoni le? sisihlangu

Sisihlangu sini? Sisihlangu sokubaleka/iteki

Sizinxiba xa kutheni ezi zihlangu? Xa sibaleka/xa sidlala/xa sizilolonga

Kutheni zinxiba ezi zihlangu xa sisenza oku singanxibi ezinye izihlangu? Umphantsi orhabaxa-ungatyibilika lula njengomphantsi ogudileyo, umphantsi orhabaxa unika ukubambelela okungcono unciphisa amathuba okutyibilika nokuwa.

Ucinga ukuba kuza kuyinceda ingwenkala ukuba ibe nesiqhelaniso esiyinika ubambelelo mhlaba?

Uthupha lwengwenkala lunesiqhelaniso ezimbini zobambelelo-mhlaba, iinzipho ezingabuyiyo egromba ngazo umhlaba nemikrwelo enzulu(grooves) emathupheni azo nemhlabeni esebenza ngendlela efanayo nale isematayareni emoto.



Iintswazi (Sticks):

Buza abafundi ukuba zeziphi iintswazi abonokuzisebenzisa ukwenza imilenze yengwenkala. Imilenze emide inceda ekuvumeleni ugxanyo olude ukuze ibenoku thabatha umgama omde ngexesha elifutshane.

Ucingo (Wire):

Goba usolula ucingo ubonakalisa ukuthamba kwalo. Oku kumele umqolo wengwenkala. Ingwenkala inomqolo othambe kunene, oku kuvumela umzimba woluleke kanga ngoko kufuneka xa ibaleka. Oko kwakunye nemilenze emide, kunika ingwenkala ugxanyo oluziimitha ezi-8 (bonakalisa ubude be 8m)

Umfanekiso Wengwenkala:

Ingaba ingwenkala inqinile okanye ityebile? Iingwenkala zilula zingathwelanga bunzima bazihlunu zikhulu. Ukuba mkulu nokusinda kwakho kukhokhela ekucotheni kwakho.

Umtya:

Umsila wengwenkala udlala indima yophini, uyinceda ingwenkala ekujikeni ngelixa ibaleka ukwayinceda ekubeni ingawi. Ingwenkala isebenzisa umsila wayo ntengoko sisebenzisa iimpondo kwiibhayisekile ukuziqhubeni.

Iintliziyo:

Yintoni umsebenzi wentliziyo yakho? Ukumpompa igazi elinomongo moya (oxygen) ukuya ezihlunwini ukuze zibenakho ukusebenza.

Xa ubaleka okanye unento oyenzayo, ungadinga okwengezelelekileyo ukuguna izihkunu zakho zisebenza? Ewe.

Kutheni udinwa xa unento oyenzayo? Ukungabikho komongo moya owaneleyo oya ezihlunwini.

Ucinga ukuba kunga thatha umoya omninzi ukubaleka ngamendu angama 120km/h? Ewe.

Oko kuthetha ukuba ingwenkala kufuneka ibentliziyo enkulu ukuyi nceda ibaleke lamendan aphezulu.

Izibonisi-kude:

Xa ubonokuba yinyamakazi ningahlala kufotshane okanye kude kangangoko kunengwenkala? Kude le.

Sisebenzisa ntoni ukubona izinto ezikude kunathi? Izibonisi-kude.

Ucinga ukuba kungaluncedo ukuba ingwenkala ibenakho ukubona kude? Ewe, ukwenzela ibenakho ukubona apho ukutya kukhoyo/apho zikhoyo ezinye iizizingeli.

Amehlo engwenkala asebenza ngezibonisi-kude eyivumela ukuba ibone kude kakhulu-iikhilomitha ezi-5. Sebenzisa indawo eyaziwayo eqikeleleka kumgama ongama-5km. Ukusuka esikolweni ukubacacisela ukuba ububude obungakanani umgama oyi-5km. Ingwenkala iyakwazi ukubona intaka ekude nglomgama.

Iindondo:

Ngenxa yamendu ayo ingwenkala izingela emini ukuze ibone kakuhle apho iya khona. Ngamaxesha ayo okusebenza, kusasa/ngokuhlwa ilanga lisezantsi kwesibhaka-bhaka okwenza ukuba ingwenkala ijongane nqo nelanga. Xa ujonge elange uyakwazi ukubona kakuhle? Ucinga ukuba oku kuyilungele ingwenkala xa izingela naxa ibaleka ngamenou? Sisebenzisa ntoni ukukhusela amehlo ethu elangini? Iindondo. Ucinga ukuba ziyintoni iindondo zengwenkala? Limpawu zeenyembezi umbala omnyama utsalela kuwo ukukhanya kananjalo utsalela ukuphandla kwelanga ngaphantsi kwamehlo hayi kuwo nqo.

Ngosetyenziso lwezi zenzo zimbini zilandelayo, unakho ukuqwalasela uqondo sifundo lwabafundi kwakunye noku kwazi kwabo ukuchenga ulwazi kwiindawo ngeendawo.





ISENZO 1

Ngokusebenzisa I-“Cheetah Crossword Puzzle Worksheet” efumaneka kwiphepha elilandelayo, mema abafundi ukuba bayigcwalise besebenzisa ipensile bezikhumbuza ngabakufunde kwisifundo sangaphambili. Banike imizuzu elishumi ukwenza oku. Emveni koko ungabamema basebenzise iposta yeziqhelaniso ukuze babenokujonga belungisa iimpendulo zabo.



ISENZO 2

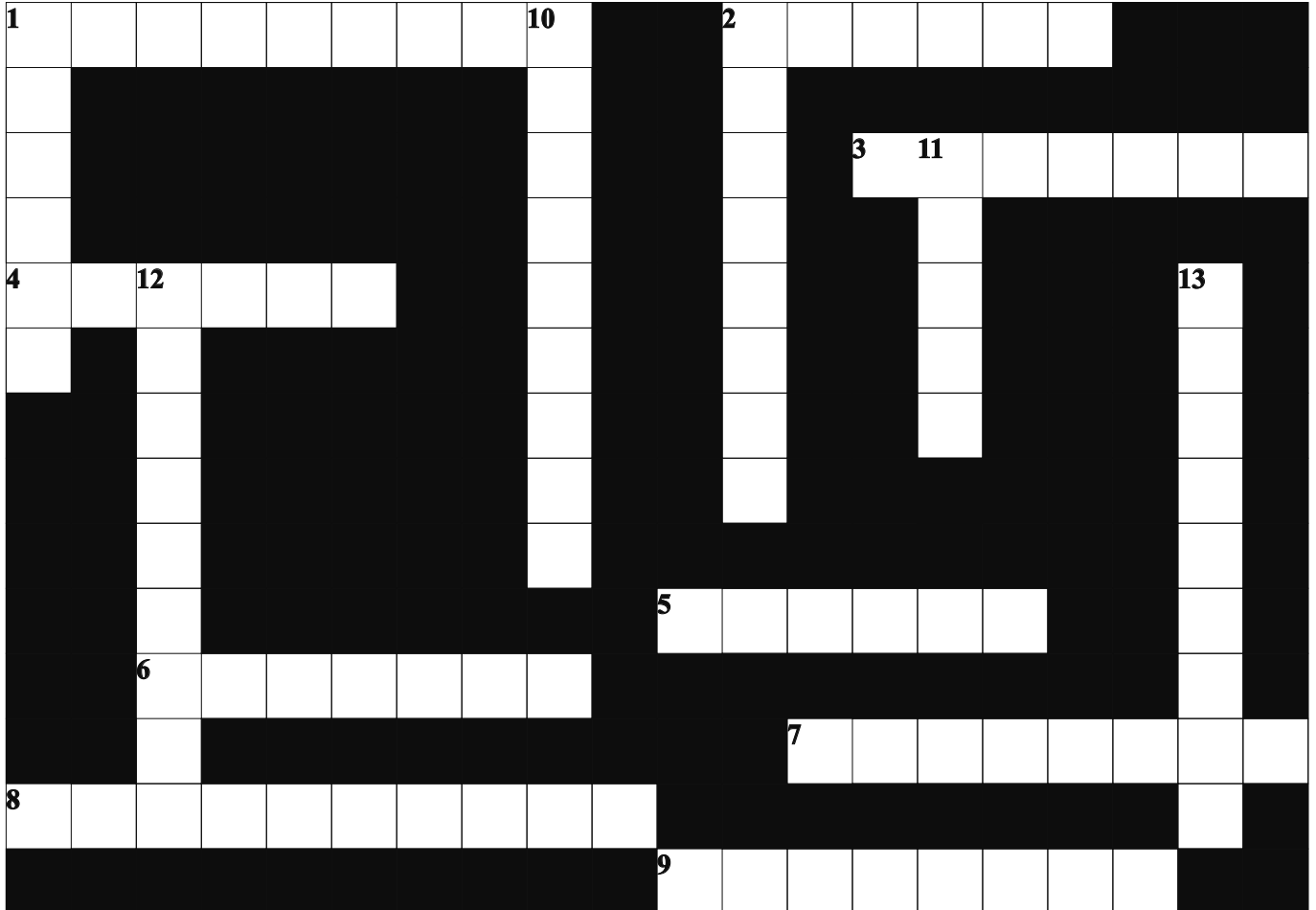
Ngokusebenzisa umhlathi neposta yeziqhelaniso zengwenkala nokufundileyo kwisenzo esandulela esi, gcwalisa izikhewu ukuze ubonakalise ubudlelwane phakathi kobume, iziqhelaniso mnomsebenzi kwikhasi lomsebenzi(worksheet) lo”Lwakhelo Mendu” kwiphepha-18.





Igama: _____

Umhla: _____



Ecaleni:

- 1: Ingwenkala sesona silo sibaleka _____ ehlabathini.
- 2: _____ uyinceda ngoxhathiso nasekujikeni kwakamsinya ingwenkala.
- 3: Kuthabatha _____ amaninzi ukuze ingwenkala ibenakho ukubaleka nesantya ebaleka ngaso.
- 4: Ingwenkala inee _____ ezingabuyi kwaphela.
- 5: Ubugoxo bengwenkala _____ ngeyona ndlela.
- 7: Ingwenkala ine _____ enzulu kwimiphantsi/kwimiqamelelo yamathupha ayo.
- 8: Intliziyo yandisiwe ukuqinisekisa ukuba _____ owongezelelekileyo uyaya ezihlunwini.
- 9: Iimpawu zee _____ (tear marks) zengwenkala ziindondo zayo.

Ezantsi:

- 1: Ingwenkala ibaleka phezu kwee _____ zayo.
- 2: Amathupha ayo aqhelaniselwe u _____ - mhlabeni olungcono.
- 10: _____ esinqe sayo ingwenkala anakho ukujika-jika.
- 11: Ugxanyo olunye lwengwenkala, xa ifikelele kwesona santya siphezulu ibaleka ngaso, lubude _____ obukwii _____ ezisibhozo.
- 12: _____ nemiphunga zayo zinkulu kunezinye iikati .
- 13: Ingwenkala _____, ukanti ingwe enamabla ityebile yona.





IMPENDULO

Ecaleni:

- 1 Ngamandla
- 2 Umsila
- 3 Amandla
- 4 Nzipho
- 5 Bulula
- 7 Mikrwelo
- 8 Mongomoya
- 9 Nyembezi

Ezantsi:

- 1 Nzwane
- 2 Bambelelo
- 10 Amathambo
- 11 Mitha
- 12 Intliziyo
- 13 Ibhityile





ISENZO 2 - ulwakhelo mendu

Igama: _____ **Lisuku:** _____

Sebenzisa umhlathi nesazobo eziqhelaniso zengwenkala kunye nokufundi leyo kwisenzo zangaphambili gcwalisa okunga zaliswanga ukubonakalisa unxulumano pharathi kolwakhiwo, isiqhelaniso kwankunye momsebenzi wazo.

ULWAKHIWO	UQHELANISO	UMSEBENZI
Umsila		
Umzimba		
Umphantsi wenya -wo (Ithlipha)		
Umqolo		
Intliziyo		

Iziqhelaniso Zamendu eNgwenkala:

Ingwenkala sesona silo sibaleka ngamandla ehlabathini, inesona santya siphezulu singama 110-120 eekhilomitha ngeyure. Ukubaleka yeyona ndlela yokuzikhusela yengwenkala, amendu ayo ayivumela ukuba ibenakho ukuzingela nokubaleko iimeko ezinbungozi. Ingwenkala ineziqhelaniso ezininzi eziyinceda ekubeni ibenakho ukubaleka ngokukhawuleza okukhulu. Ingwenkala inobugoxo obulula ngeyona ndlela, ingenazo nazihlunu zisindayo, okuyivumela ukuba ibenokubaleka ngamandla kuba ngokubanzima kwakho lonto ithetha ukucutheka kwesantya onokuthi ufikelele kuso. Umzimba wengwenkala unempikiswano-moya (air-resistance) ongephi. Amathambo emilenze nawo made kuneyezinye iikati, zikwabaleka phezu kweenzwane zazo iingwenkala ukuze zibe amanyathelo amakhulu. Ingwenkala ikwanowona mqolo uthambileyo xa kuthalekiswa nezinye iikati, oku kuyivumela ukuba ibenakho ukunyusa ubukhulu bamanyathelo ayo ngokuthi itwezise umzimba wayo nangakumbi. Amathambo eengwenkala esinqe anakho ukujika-jika apho aqhagamshelwe khona kwintsalela yomzimba, okuthi kuyivumele ukuba ibenakho ukuyitwezisa nangakumbi lemilenze yangasemva. Ezi ziqhelaniso inazo ingwenkala zizo eziyivumela ukuba ibenakho ukwenza ugxanyo olude elenzayo olungangeemitha ezisibhozo xa ibaleke ide iyokufikelela kwesona santya sayo siphezulu. Umsila wengwenkala omde, omxinwa unceda ekuxathiseni nasekujikeni xa kufanele yenze njalo ibaleka. Amathupha ayo ayinika ubambelelo-mhlaba olungcono ukunqanda utyibiliko ngelixa ibaleka. Olu bambelelo-mhlabeni luvunyelwa yimikrwelo enzulu ngaphantsi kwamathupha ayo, ikwanazo neenzipho ezingabuyi kwaphela (semi-retractable). Kuthatha amandla amaninzi ukuze ingwenkala ibaleke kangaka. Ngumomongomoya osegazini onika lamandla. Iingwenkala zineentliziyo namamphaphu amakhulu ukuqinisekisa ukuba ukho umongomoya owaneleyo oyayo ezihlunwini zazo xa zibalekela kwizantya ezibalekela kuzo, ukuze zibekunokuwafumana lamandla adingekayo ekukwenzeni oku.

