

Glossary

Elementary School Level Science Glossary

English / Swahili

Translation of Science Terms Based on the
Coursework for Science Grades 3 to 5.



This glossary is to PROVIDE PERMITTED TESTING ACCOMMODATIONS of ELL/MLL students. It should also be used for INSTRUCTION during the school year. The glossary may be downloaded, printed and disseminated to educators, parents and ELLs/MLLs.

Please click here for the New York State Office of Bilingual Education and World Languages Webpage on "Assessment and Testing Accommodations"



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

Last Updated: October 2018



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

P-16

Office of Elementary, Middle, Secondary and Continuing Education and Office of Higher Education
Office of Bilingual Education and World Languages

<http://www.emsc.nysed.gov/biling/>

THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of The University

BETTY A. ROSA, <i>Chancellor</i> , B.A., M.S. in Ed., M.S. in Ed., M.Ed., Ed.D.	Bronx
T. ANDREW BROWN, <i>Vice Chancellor</i> , B.A., J.D.	Rochester
ROGER TILLES, B.A., J.D.	Great Neck
LESTER W. YOUNG, JR., B.S., M.S., Ed.D. .	Beechhurst
CHRISTINE D. CEA, B.A., M.A., Ph.D.	Staten Island
WADE S. NORWOOD, B.A.	Rochester
KATHLEEN M. CASHIN, B.S., M.S., Ed.D.	Brooklyn
JAMES E. COTTRELL, B.S., M.D.	New York
JOSEPHINE VICTORIA FINN, B.A., J.D.....	Monticello
JUDITH CHIN, M.S. in Ed.	Little Neck
BEVERLY L. OUDERKIRK, B.S. in Ed., M.S. in Ed.	Morristown
CATHERINE COLLINS, R.N., N.P., B.S., M.S. in Ed., Ed.D.	Buffalo
JUDITH JOHNSON, B.A., M.A., C.A.S.	New Hempstead
NAN EILEEN MEAD, B.A.	Manhattan
ELIZABETH S. HAKANSON, A.S., M.S., C.A.S.	Syracuse
LUIS O. REYES, B.A., M.A., Ph.D.	New York
SUSAN W. MITTLER, B.S., M.S.	Ithaca

Commissioner of Education and President of The University

MARYELLEN ELIA

Executive Deputy Commissioner

ELIZABETH R. BERLIN

The State Education Department does not discriminate on the basis of age, color, religion, creed, disability, marital status, veteran status, national origin, race, gender, genetic predisposition or carrier status, or sexual orientation in its educational programs, services and activities. Portions of this publication can be made available in a variety of formats, including braille, large print or audio tape, upon request. Inquiries concerning this policy of nondiscrimination should be directed to the Department's Office for Diversity and Access, Room 530, Education Building, Albany, NY 12234.

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
A	
absorb	fyonza
acceleration	mchapuko
acid rain	mvua ya asidi
adapt	kutohoa
adaptation	utohozi/ wepesi wa kubadilika
adjust	kuzoeza
air	hewa
air pressure	shinikizo hewa
air resistance	ukinzani hewa
alto	sauti ya pili
amount	kiasi
amphibian	amfibia
analyze	changanua
anemometer	anemometa
animal	mnyama
apply	tumia
around	kandokando
arrange	panga
artery	ateri
arthropod	athropoda
asteroid	sayari ndogo/asteroidi
atmosphere	angahewa
atom	atomu
axis	mhimili
B	
balance	urari
balanced forces	nguvu zenye urari
bar graph	grafu pau
barometer	kipimahewa
battery	betri
behavior	tabia
beneficial	-a manufaa
best	bora sana
bird	ndege
blink	pepesa
block	zuia
blood tissue	tishu ya damu
blood vessel	mishipa ya damu
body heat	joto la mwili
bone	mfupa

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
bone tissue	tishu ya mfupa
brain	ubongo
breathe	pumua
bronchi	koromeo
buoyant force	nguvu ya uelezi
C	
calculator	kikokotoo
camera	kamera
camouflage	kamafleji/majificho
capillary	kapilari
carnivore	Mnyama mlanyama
caterpillar	kiwavi
cause-and-effect	chanzo-na-athari
cell	seli
cell membrane	kiwamboseli
cell wall	ukutaseli
Celsius (C°)	Celsius (C°)
centimeter (cm)	sentimita (sm)
central nervous system	mfumoneva mkuu
change	badiliko
change of direction	badiliko la mwelekeo
change of motion	badiliko la mwendo
change of speed	badiliko la kasi
characteristic	tabia
chemical	kemikali
chemical change	badiliko la kikemikali
chemical property	sifa ya kikemikali
chemical weathering	mkwajuko wa kikemikali
chlorophyll	klorofili
chloroplast	kloroplasti
choose	chagua
cinder cone volcano	volkano ya koni ya kipande cha lava
circuit	saketi
circulatory system	mfumo wa mzunguko wa damu
cirro-	mawingu ya mwinuko wa juu
cirrus cloud	wingu mavundevunde
classification	uainishaji
classify	ainisha
claws	kucha
climate	tabianchi
cloud	wingu
collect	kusanya

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
color	rangi
column	Mhimili/safu
comet	kimondo
common	kawaida
community	jamii
compare	linganisha
compass	dira
competition	ushindani
composite volcano	volkano zaidi ya moja
compost pile	rundo la mbolea
compound	msombo
compound microscope	hadubini ambatani
computer	kompyuta
conclusion	hitimisho
condensation	mtonesho
condition	hali
conduction	upitishaji
conductivity	uwezo wa kupitisha
conductors	vipitishi
conservation	uhifadhi
consumer	mlaji
contain	jumuisha
container	chombo
content	maudhui
convection	myuko
crest	kilele/shungi
crust	kigaga
crystal	fuwele
cubic centimeter	sentimita za ujazo
cycle	mzunguko
cytoplasm	sitoplazimu
D	
dam	Bwawa/mvyazi
data	data
data table	jedwali la data
decomposer	kiozeshaji
decrease	punguza
define	Bainisha/fasili
definite	yenye msimamo/hususa
density	Uzito/msongamano
deposition	thibitisho
derived	kutokana na

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
describe	elezea
design	muundo/sanifu
development	maendeleo
diagram	mchoro
die	fariki/-fa
difference	tofauti
digestive system	mfumo wa mmeng'enyoy
direction	mwelekeo
directly	moja kwa moja
discuss	jadili
disperse	tawanya
distance	umbali/masafa
distribute	gawanya/sambaza
draw	chora
E	
earth	dunia
earthquake	tetemeko la ardhi
earthworm	nyungunyungu
eat	kula
echo	mwangwi
ecosystem	mfumo wa ikolojia
effect	athari
efficient	fanisi
egg	yai
electric	umeme
electric current	mkondo wa umeme
electrical energy	nishati ya umeme
electromagnet	sumaku umeme
electromagnetism	usumaku umeme
electron	elektroni
elements	elementi
elevation	mwinuko
eliminate	chuja/ondoa
emit	toa
energy	nishati
energy resources	rasilimali za nishati
environment	mazingira
equal	sawa
erosion	mmomonyoko
error	hitilafu
eruption	foka/ripuka
esophagus	umio

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
establish	unda/anzisha
estimate	kadiria/kisia
estimation	ukadiriaji/ukisiaji
evaluate	tathimini
evaporate	yeyuka
evaporation	uyeyukaji
evidence	ushahidi
example	mfano
exercise	zoezi
exoskeleton	upande wa nje wa mifupa
experiment	jaribio
explain	fafanua
external	nje
eyes	macho
F	
fact	jambo la hakika/ukweli
factor	zao mtiririko/kipengele
Fahrenheit (°F)	Farenhaiti (°F)
fault	dosari
feather	manyoya
feature	sifa/sehemu muhimu
features	sifa/sehemu muhimu
fins	pezi
fish	samaki
fixed pulley	kapi/roda isiyohamishika
float	elea
flood	furika
flowers	maua
food chain	mnyororo wa chakula
food web	mtandao wa chakula
force	nguvu
form	umbo
former	awali/mwanzoni
formula	fomyula
fossil	kisukuku
fossil fuel	mafuta ya kisukuku
frequency	marudio/idadi ya marudio
friction	msuguano
fruit	tunda
fulcrum	egemeo
function	shughuli
fur	manyoya

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
G	
galaxy	kundi la nyota
gas	gesi
generation	kizazi
generator	jenereta
germinate	chipua
germination	uchipuaji
glacier	mto wa barafu
graduated cylinder	silinda fuzu
gram (g)	gramu (g)
graph	grafu
graphic	- a grafu
gravity	mvutano
greatest	kubwa sana
green plant	mmea wa kijani
ground	ardhi
groundwater	maji ya ardhini
grow	kua
growth	ukuaji
H	
habitat	makazi
hail	mvua ya mawe
hair	nywele
hand lens	lensi ya mkono
hardness	ugumu
harmful	inadhuru
health	afya
healthy habit	tabia ya kuzingatia afya
hearth	meko
hearth muscle	msuli wa meko
heat	joto
heat energy	nishati joto
herbivore	mle mimea
hibernation	kubumbwaa
host	mwenyeji
human	binadamu
humidity	unyevu
hurricane	kimbunga
hygrometer	kipimaunyevu
Hypothesis	Nadharia tete

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
I	
identify	bainisha
identical	inayofanana
igneous rock	mwamba ulioundwa na volkano
illuminate	angaza/mulika
illustrate	onyesha kwa kielelezo
inclined plane	ubapa mwinamo
increase	ongeza
Independent variable	kugeuka huru
indicate	ashiria
inference	imua/hitimisha
information	taarifa
inherit	rithi
inherited adaption	mabadiliko yaliyorithiwa
inherited trait	tabia zilizorithiwa
inquiry	maulizo
insect	mdudu
insulator	kihami
interact	athiriana/ingiliana
internal	-a ndani
interpret	tafsiri
interval	muda/wakati baina ya matukio mawili
invertebrate	isio na uti
investigate	chunguza
J	
jaw	taya
jellyfish	kavuyavu/kiwavi
joint	kiungo
journal	jarida
K	
kilogram (kg)	kilogramu (kg)
kiloliter (kl)	kilolita (kl)
kilometer (km)	kilomita (km)
kinetic energy	nishati mwendo
kingdom	ufalme
kitten	mtoto wa paka
knowledge	maarifa

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
L	
label	kitambulisho
land	nchi kavu/ardhi
landslide	mporomoko wa ardhi
large intestine	utumbo mpana
larva	buu
latitude	latitudo
lava	lava
leaf	jani
learned	-iliyojifunzwa
learned adaptation	mabadiliko yaliyojifunzwa
least	dogo
leaves	majani
leg	mguu
length	urefu
levee	ukingo wa kitope
lever	wenzo
life cycle	mzunguzo wa maisha
life span	muda wa maisha
light	mwanga
lighting	taa
line graph	grafu ya mstari
lines of force	mistari ya nguvu
liquid	kioevu
list	orodha
liter (L)	lita (L)
live	hai/ishi
living	kuishi
living thing	kiumbe hai
location	mahali maalum
lunar eclipse	kupatikana kwa mwezi
lungs	mapafu
luster	mng'aro
M	
magma	magma
magnet	sumaku
magnetic field	uwanja sumaku
magnetic force	nguvu sumaku
magnetism	usumaku
magnifier	kiokuzi
maintain	dumisha
major	kubwa/kuu zaidi

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
mammal	mamalia
mass	fungu/wingi
mates	wenzi
matter	maada
measure	kipimo
mechanical	-a umakanika
mechanical energy	nishati ya umakanika
metamorphic rock	mwamba wa metamofiki
metamorphosis	ugeuzaji umbo
meter (m)	mita (m)
meter stick	fimbo ya mita
method	mbinu
metric ruler	rula ya vipimo
microscope	hadubini
migration	uhamaji
milligram (mg)	miligramu (mg)
millimeter (mm)	milimita (mm)
mineral	madini
mitochondria	mitokondria
mixture	mchanganyiko
models	modeli
moisture	unyevu
molecule	molekyuli
mollusk	moluski
motion	mwendo
motor	mota
mouth	kinywa
movable pulley	kapi/roda inayohamishika
muscle tissue	tishu za misuli
muscular system	mfumo wa misuli
N	
nail	kucha
natural events	matukio ya asili
negative	hasi
nervous system	mfumoneva
neuron	nuroni
niche	kishubaka
nimbus	wingu la mvua
nonliving thing	kiumbe kisichokuwa hai
nonrenewable	kisichoweza kutengenezwa/kufanywa upya
nonrenewable energy resource	rasilimali ya nishati isiyoweza kutengenezwa/kufanywa upya
nose	pua

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
nucleus	kiini
number	idadi/hesabu/kiwango
nutrient	virutubisho
O	
object	kitu
objective lens	lenzi shabaha
observable	-a kuonekana
observation	kuangalia mandhari
observe	tazama
obtained	-imepatwa
occur	tokea
odor	harufu
offspring	mtoto
omnivore	mlavyote
opinion	maoni
orbit	mzingo
order	mpangilio
organ	ogani
organ system	mfumo wa ogani
organism	kiumbe
organize	panga/ratibu
original	asili
ovary	ovari
overabundance	kwa wingi kabisa
ozone	ozoni
P	
parallel circuit	saketi sambamba
parasite	kimelea
path	njia
pattern	mpangilio
percent, percentage	asilimia
period	kipindi
permanent magnet	sumaku ya kudumu
phases	awamu
phenomena	tukio/matukio
photosynthesis	usanidimwanga
physical	maumbile
physical change	mabadiliko ya kimaumbile
physical environment	mazingira ya kimaumbile
physical property	mali ya kushikika
physical weathering	kukwajuka kwa maumbile
pie graph	grafu pai

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
pistil	pistili
pitch	lami/bereu
planet	sayari
plant	mmea
polar	ncha za dunia
pollen	chavua
pollinate	chavusha
pollution	uchafu
position	nafasi
positive	chanya/dhahiri
potential energy	uwezekano wa nishati
precipitation	kunyesha kwa mvua
predator	mwindaji
predict	tabiri
prediction	utabiri
presence	uwepo
previous	iliopita/iliotangulia
prey	mawindo
primary	msingi
probable	kinachowezekana
procedure	utaratibu
process	mchakato
produce	zalisha
producer	mzalishaji
properties	sifa
protect	linda
proton	protoni
provide	kutoa
pull	kuvuta
pulley	roda/kapi
pupa	pupa
puppies	kitoto cha mbwa
push	sukuma
R	
rabbit	sungura
radiation	mnururisho
rain	mvua
rearrange	panga upya
reason	sababu/madhumuni
receive	pokea
record	kumbukumbu/rekodi
rectum	rektamu

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
recycle	uchakataji
reduce	punguza
refer	rejea
reflect	akisi
refract	kupinda/pindisha
relationship	uhusiano
relative humidity	ukadiriaji unyevu
relevant	inayohusika
remain the same	baki vilevile
renewable	kinachoweza kutengenezwa/kufanywa upya
renewable energy resource	rasilimali ya nishati inayoweza kutengenezwa/kufanywa upya
repair	ukarabati
repel	fukuza
represent	wakilisha
reproduce	zaliana
reproduction	kuzaliana
reptile	mtambaazi/reptilia
required	inayohitajika
respiratory system	mfumo wa upumuaji
respond	jibu
response	jibu
responsible	wajibika
result	matokeo
rest	pumziko
reuse	tumia tena
revolution	mapinduzi
revolve	zunguka
riding a bicycle	kuendesha baiskeli
rock	mwamba
rock cycle	mzunguko wa mwamba
role	wajibu
root	mzizi
rotate	zunguka
rotation	mzunguko
rubbing	kusugua
ruler (metric)	rula (-a vipimo)
runoff	mtiririko
S	
saliva	mate
salivate	kutokwa mate
scale	kipimo

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
scientific inquiry	maulizo ya kisayansi
scientific investigation	uchunguzi wa kisayansi
scientific thinking	fikiria za kisayansi
screw	parafujo/skrubu
seasonal	-a msimu
seasonally	kila msimu
seasons	misimu
secondary	-a pili
sediment	mashapo/masimbi
sedimentary rock	mwamba wa mashapo/masimbi
seed	mbegu
seedling	mche
select	chagua/teua
senses	hisia
sense organ	ogani ya hisia
sequences	mwandamano/mfuatano
series circuit	saketi sanjari
sewage	maji taka
shadows	vivuli
shape	umbo
shells	koa/simbi
shelter	makao
shield volcano	volkano ngao
shiver	tetemeka
significant	yenye umuhimu/maana
similarity	kufanana/mfanano
simple machine	mashine rahisi
sink	zama
situation	hali
size	ukubwa
skeletal muscle	misuli ya mifupa
skeletal system	mfumo wa mifupa
skin	ngozi
sky	anga
sleet	mvua ya theluji
small intestine	utumbo mdogo
smooth muscle	msuli laini
snow	theluji
soil	udongo
soil texture	umbile asili la mchanga
solar cell	seli ya jua
solar system	mfumo wa jua
solid	mango

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
solidification	ugandishaji
solubility	umumunyifu
solute	kioevu/kimumunyishwaji
solution	mmumunyo
sound	sauti
sound recorder	kinasa sauti
source	chanzo
space	nafasi
species	spishi
specific	mahususi
speed	kasi
spine	uti
spinal cord	uti wa mgongo
sponge	sponji
spore	spora
spring scale	ratili ya springi
sprout	chipuka
stages	hatua
stamen	stameni
stalks	mabua
star	nyota
state	hali
static charge	chaji tuli
static electricity	umeme tuli
stem	shina
stigma	stigima
stimulus	kiamshi
stomach	tumbo
storms	dhoruba
stopwatch	saa ya kupima wakati
strategy	mkakati
strato	anga la juu
stratus cloud	mawingu ng'amba
streak	mfuo
structural adaptation	mabadiliko ya kimuundo
structure	muundo
subsoil	udongo wa chini
substance	dutu
summarize	weka muhtasari/fupisha
sun	jua
sunny	-a jua
support	tegemeza
surface	uso

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
survive, survival	kuishi/kuendelea kuishi
surviving	kuendelea kuishi
sweat	jasho
switch	badili/swichi
system	mfumo
T	
tadpole	kiluwiluwi
tape measure	chenezo
teeth	meno
temperate	hali joto wastani
temperature	hali joto
temporary magnet	sumaku ya muda
theory	nadharia
thermometer	kipima joto
thrive	kustawi
thunderstorm	mvua ya radi
tissue	tishu
tongue	ulimi
tool	chombo/kifaa
topsoil	udongo wa juu
tornado	kimbunga
trachea	koo/bomba la pumzi
trait	tabia
transfer	hamisha
transport	safirisha
trial	jaribio
tropical	tropiki
troposphere	eneo la chini sana la anga
trough	kihori
trunks	vigogo
turbine	tabo
type	aina
U	
unbalanced forces	nguvu zisizo na urari
unequal	isiyolingana
under	chini ya
universe	ulimwengu
V	
vacuole	kilengelenge
variable	kigeugeu
vegetable	mbogamboga

SCIENCE GLOSSARY - ELEMENTARY SCHOOL LEVEL

ENGLISH	SWAHILI
vein	mshipa
vertebrate	enye uti wa mgongo
visible	inayoonekana
volcano	volkano
voltmeter	kipima volti
volume	ujazo
W	
waste	taka
water	maji
water cycle	mzunguko wa maji
water vapor	mvuke wa maji
wavelength	urefu wa wimbi
weather	hali ya hewa
weathering	kukwajuka
wedge	kabari/chembeo
week	juma/wiki
weight	uzito/uzani
wheel and axle	gurudumu na mtaimbo
width	upana
wind	upepo
wind vane	kishale cha mwelekeo wa upepo
wings	mabawa