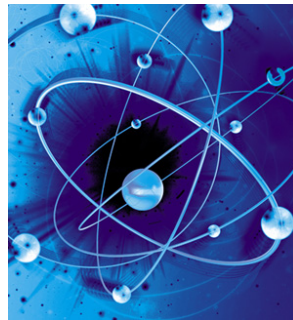
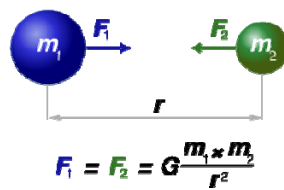


# Glossary

High School Level

## Physics Glossary

English / Swahili



Translation of Physics terms based on the Coursework for Physics Grades 9 to 12.

Word-for-word glossaries are used for testing accommodations for ELL/LEP students





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

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**P-16**

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PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                       | SWAHILI                                 |
|-------------------------------|---|
| <b>A</b>                      |   |
| aberration                    | mkengeuko                               |
| ability                       | uwezo                                   |
| absence                       | -tokuwepo                               |
| absolute scale                | kipimo halisi                           |
| absolute zero                 | sufuri halisi                           |
| absorption                    | ufyonzaji                               |
| absorption spectrum           | spektra ya ufyonzaji                    |
| accelerate                    | chapuka                                 |
| acceleration                  | mchapuko                                |
| acceleration of gravity       | mchapuko wa mvutano                     |
| accentuate                    | tia mkazo                               |
| accompany                     | andamana                                |
| accomplish                    | timiza                                  |
| accordance                    | kwa mujibu wa/kufuatana na              |
| account                       | eleza                                   |
| accumulate                    | limbikiza                               |
| accuracy                      | usahihi                                 |
| accurate                      | sahihi                                  |
| achieve                       | fanikisha                               |
| acoustics                     | mazingira sikizi                        |
| action                        | tendo                                   |
| activity                      | shughuli                                |
| actual                        | halisi/iliopo                           |
| addition                      | nyongeza                                |
| adhesive                      | -a kunata                               |
| adjacent                      | mkabala                                 |
| advantage                     | manufaa                                 |
| aerodynamics                  | mwendo wa vitu hewani                   |
| air pollution                 | uchafuzi wa hewa                        |
| air resistance                | ukinzani wa hewa                        |
| air track                     | mkondo wa hewa                          |
| aircraft                      | ndege                                   |
| airfoil                       | umbo la bawa                            |
| airplane                      | ndege                                   |
| alcohol                       | kileo                                   |
| algebra                       | algebra                                 |
| allow                         | ruhusu                                  |
| alternating current generator | genereta ya kubadilisha mkondo wa umeme |
| altimeter                     | altimeta                                |
| aluminum                      | aluminiamu                              |
| amber                         | kaharabu                                |
| ammeter                       | ameta                                   |
| ampere                        | ampea                                   |
| amplitude                     | tambo                                   |
| analogy                       | analojia                                |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI  |
|--------------------------|--|
| analysis                 | uchanganuzi                                      |
| analyze                  | changanua  |
| antinodal line           | mstari wa antinodi                               |
| anemoscope               | kionyesha mwelekeo wa upepo                      |
| aneroid                  | hakitumii au hakina ugiligili                    |
| aneroid barometer        | kipimahewa ambacho hakitumii au hakina ugiligili |
| angle                    | pembe  |
| ant.; antenna            | ant.; antena                                     |
| antinode                 | antinodi   |
| antiparticle             | punje  |
| apparent                 | dhahiri  |
| appendix                 | kiambatisho                                      |
| applied force            | nguvu iliyotumika                                |
| approach                 | njia   |
| aquarium                 | tangisamaki                                      |
| arbitrary                | holela   |
| arc                      | tao  |
| archer                   | mpiga mishale                                    |
| Archimedes' principle    | Kanuni ya Archimedes                             |
| architect                | msanifu majenzi                                  |
| area                     | eneo   |
| argon                    | agoni  |
| Aristotle                | Aristotle  |
| armature                 | amecha /deraya                                   |
| arrow                    | mshale   |
| arrangement              | mpangilio  |
| artificial               | bandia/iliyoundwa                                |
| artificial radioactivity | mnururisho ulioundwa                             |
| artillery                | mizinga  |
| aspect                   | kipengele  |
| assemble                 | unganisha  |
| assume                   | dhania   |
| assumption               | madhanio   |
| astronomer               | mwanafalaki                                      |
| astronomical             | -a kifalaki                                      |
| astronomy                | falaki   |
| athlete                  | mwanariadha                                      |
| atmosphere               | angahewa   |
| atmospheric              | -a hewa  |
| atom                     | atomu  |
| atomic energy            | nishati ya atomu                                 |
| atomic mass unit         | kizio cha uzito wa atomu                         |
| atomic number            | namba ya atomu                                   |
| attach                   | ambatisha  |
| attain                   | fikia  |
| attract                  | vutia  |
| attraction               | mvuto  |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                | SWAHILI                             |
|------------------------|-------------------------------------|
| attractive             | -a kuvutia                          |
| audience               | hadhira                             |
| auditorium             | bwalo/ukumbi                        |
| auditory               | -a kusikizia                        |
| aurora                 | mwanga                              |
| aurora borealis        | mwanga wa kaskazini                 |
| automobile             | gari                                |
| average                | wastani                             |
| average speed          | kasi ya wastani                     |
| average velocity       | kasimwelekeo ya wastani             |
| axis                   | mhimili                             |
| axle                   | ekseli                              |
| <b>B</b>               |                                     |
| back - EMF             | nyuma - EMF                         |
| baffle                 | kanganya                            |
| balance                | usawa                               |
| barometer              | kipimahewa                          |
| barrel                 | pipa                                |
| barrier                | kikwazo                             |
| baryon                 | baryoni                             |
| base level             | kiwango cha chini kabisa            |
| basic equation         | mlinganyo wa msingi                 |
| basin                  | kibia                               |
| basis                  | msingi                              |
| batter                 | ponda ponda                         |
| battery                | betri                               |
| bead (ex., optic bead) | kashabu (mfano, taswira ya kashabu) |
| beaker                 | bika                                |
| beam balance           | mhimili mzani                       |
| beat                   | piga                                |
| behave                 | tenda                               |
| behind                 | nyuma                               |
| bend                   | pinda                               |
| beneath                | chini ya                            |
| bent                   | pindika                             |
| Bernoulli's principle  | kanuni ya Bernoulli                 |
| beyond                 | zaidi ya                            |
| billiard               | biliadi                             |
| bimetallic             | yenye metali mbili                  |
| bimetallic strip       | kipande kilicho na metali mbili     |
| binding energy         | nishati ya lazima                   |
| binocular              | darubini                            |
| black-hole             | shimo-jeusi                         |
| blade                  | ubapa                               |
| block                  | kapi                                |
| blue                   | samawati                            |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH            | SWAHILI                       |
|--------------------|-------------------------------|
| blur               | waa/tia waa                   |
| bob                | rukaruka                      |
| boiling            | kuchemka                      |
| boiling point      | kiwango cha kuchemka          |
| boldface           | uso mkakamavu                 |
| bolt               | komeo                         |
| Boltzmann constant | fomula ya kudumu ya Boltzmann |
| bond               | mapatano                      |
| boreal; borealis   | uande wa kaskazini            |
| bounce             | ruka                          |
| boundary           | mpaka                         |
| bow                | upinde/uta                    |
| bowling ball       | mpira wa tufe                 |
| bowstring          | kamba la upinde/uta           |
| Boyle's law        | kanuni ya Boyle               |
| brain              | ubongo                        |
| branch             | tawi                          |
| brass              | shaba                         |
| breeder reactor    | mtambo wa nyuklia             |
| brick              | tofali                        |
| brief              | fupi                          |
| bristle            | nyoya paruparu                |
| broadcast          | tangaza                       |
| bubble             | puto                          |
| bubble chamber     | chumba cha puto               |
| bug                | dudu                          |
| bugle              | buruji                        |
| bulge              | mbenuko                       |
| bullet             | risasi                        |
| buoyancy           | ueleaji                       |
| buoyant            | inayoelea                     |
| buoyant force      | nguvu ya ueleaji              |
| burglar            | mwizi                         |
| burglar alarm      | kengele ya mwizi              |
| by virtue of       | kwa adili ya                  |
| <b>C</b>           |                               |
| cable              | kebo                          |
| cadmium            | kadimi                        |
| cadmium sulfide    | kadimi sulfidi                |
| calculate          | kokotoa                       |
| calculus           | kalkulasi                     |
| calibrate          | kadiria                       |
| caloric            | -a kalori                     |
| caloric theory     | nadharia ya kalori            |
| calorie            | kalori                        |
| calorimeter        | kipimajoto                    |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI                      |
|--------------------------|------------------------------|
| camp                     | kambi                        |
| camper                   | mpiga kambi                  |
| candelabra               | vinara vya mshumaa           |
| candle                   | mshumaa                      |
| cannonball               | mpira wa mzinga              |
| canoe                    | ngalawa                      |
| canyon                   | korongo kuu                  |
| capable                  | mahiri                       |
| capacitance              | uwezo                        |
| capacitor                | kapasita                     |
| capacity                 | ujazo                        |
| capillary                | kapilari                     |
| capillary action         | kitendo cha kapilari         |
| capsule                  | kapsuli                      |
| carbon                   | kaboni                       |
| carbon grain             | chembe ya kaboni             |
| carbon tetrachloride     | kaboni tetrakloridi          |
| carpet                   | zulia                        |
| carton                   | katoni                       |
| case                     | kesi                         |
| cast                     | tupa                         |
| catheter                 | katheta                      |
| cathode                  | kathodi                      |
| cathode-ray tube         | mrija wa mwale wa kathodi    |
| cause                    | sababu                       |
| cavity                   | mvungu                       |
| celestial                | -a anga                      |
| Celsius Scale            | Kipimo cha Celsiusi          |
| cement                   | saruji                       |
| centimeter               | sentimita                    |
| centripetal              | Katikati/tovu                |
| centripetal acceleration | mchapuko kitovu              |
| centripetal force        | kani tovu                    |
| cesium                   | sesiam                       |
| chamber                  | chumba                       |
| characteristic           | sifa bainifu                 |
| charge                   | chaji                        |
| charged                  | iliyochajiwa                 |
| charging by conduction   | kuchaji kupitia upitishaji   |
| charging by induction    | kuchaji kupitia usakinishaji |
| Charles' Law             | Kanuni ya Charles            |
| chimney                  | dohani                       |
| chloroform               | klorofomu                    |
| chord                    | uzi                          |
| chromatic                | yenye rangi                  |
| chromatic aberration     | ufarakano wa rangi           |
| circuit                  | saketi                       |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                         | SWAHILI                              |
|---------------------------------|--------------------------------------|
| circuit breaker                 | kikate                               |
| circular                        | ya mviringo                          |
| clarinet                        | zumari                               |
| clarity                         | bayana                               |
| clockwise                       | kushoto-kulia                        |
| club                            | klabu                                |
| cluster                         | kishada                              |
| cobalt                          | kobalti                              |
| cochlea                         | komboli                              |
| coefficient                     | kizigezi wiano                       |
| coefficient of friction         | kizigezi wiano cha msugano           |
| coefficient of linear expansion | kizigezi wiano cha upanuzi wa mstari |
| coefficient of volume expansion | kizigezi wiano cha upanuzi wa ujazo  |
| cohesive                        | -a kuambatana                        |
| cohesive force                  | kani mwambatano                      |
| coil                            | koili                                |
| coincidence                     | nasibu                               |
| collect                         | kusanya                              |
| collection                      | mkusanyiko                           |
| collide                         | gongana                              |
| collision                       | mgongano                             |
| column                          | safuwima                             |
| combination                     | muunganiko                           |
| combustion                      | mwako                                |
| commercial                      | -a kibiashara                        |
| commutator                      | komutata                             |
| compare                         | linganisha                           |
| comparison                      | ulinganisho                          |
| compartment                     | chumba                               |
| compass                         | dira                                 |
| complementary                   | -a kukamilishana                     |
| complementary colours           | rangi za kukamilishana               |
| complementary pigment           | pigmenti za kukamilishana            |
| complex                         | tata/changamani                      |
| component                       | kipengele                            |
| compress                        | gandamiza                            |
| compression                     | mgandamizo                           |
| Compton effect                  | athari ya Compton                    |
| concave                         | -a mbonyeo                           |
| concave lens                    | lenzi mbonyeo                        |
| concave mirror                  | kioo mbonyeo                         |
| concept                         | dhana                                |
| concrete                        | thabiti                              |
| concurrent forces               | kani sambamba                        |
| condensation                    | mtonesho                             |
| condense                        | tonesha                              |
| conduct                         | pitisha                              |



PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                   | SWAHILI               |
|---------------------------|-----------------------|
| conduction                | upitishaji            |
| conductivity              | uwezo wa upitishaji   |
| conductor                 | kipitisho             |
| cone                      | pia                   |
| confine                   | fungia                |
| congruent                 | -a kulingana          |
| consciousness             | ufahamu               |
| consequence               | matokeo               |
| conservation              | uhifadhi              |
| conservation law          | sheria ya uhifadhi    |
| consider                  | zingatia              |
| consist                   | jumuisha              |
| consonance                | mapatano              |
| constant                  | sio badilika          |
| constructive              | jenzi                 |
| constructive interference | mwingiliano jenzi     |
| contact                   | kiungo                |
| contain                   | jumuisha              |
| contract                  | bana                  |
| contraction               | mnyweo                |
| contrast                  | tofautisha            |
| control                   | dhibiti               |
| control rod               | banzi dhibiti         |
| convalescence             | muda wa kupata ahueni |
| convection                | mnyuko                |
| convenient                | rahisi                |
| converging lens           | lenzi za kukutana     |
| conversion                | ugeuzaji              |
| convert                   | geuza                 |
| convex                    | mbinuko               |
| convex lens               | lenzi mbinuko         |
| convex mirror             | kioo mbinuko          |
| copper                    | shaba                 |
| cord                      | uzi                   |
| cornerstone               | jiwe la pembeni       |
| corresponding             | linganifu             |
| cosine                    | kosi                  |
| coulomb                   | kulamb                |
| Coulomb's Law             | Kanuni ya Kulamb      |
| crack                     | ufa                   |
| craft                     | sanaa                 |
| crate                     | kreti                 |
| crest                     | kilele                |
| critical                  | uhakiki               |
| critical angle            | pembe ya uhakiki      |
| crowded                   | imesongwa             |
| crown glass               | glasi ya taji         |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI                    |
|--------------------------|----------------------------|
| crystal                  | fuwele                     |
| crystal lattice          | kiunzi cha fito cha fuwele |
| crystalline              | msitari wa fuwele          |
| cube                     | mchemraba                  |
| cubic                    | -a mche mraba              |
| cubic meter              | mita za ujazo              |
| curious                  | -a shauku                  |
| curvature                | mpindo                     |
| curve                    | mchirizo                   |
| cyan                     | samawati                   |
| cycle                    | mzunguko                   |
| cymbal                   | matuazi                    |
| cylinder                 | silinda                    |
| <b>D</b>                 |                            |
| damage                   | uharibifu                  |
| dart                     | mshale                     |
| data                     | data                       |
| de Broglie Principle     | kanuni ya de Broglie       |
| decay                    | oza                        |
| deceleration             | mteremko                   |
| deci                     | desi                       |
| decibel                  | desibeli                   |
| decimeter                | desimita                   |
| deck                     | staha                      |
| decrease                 | upungufu                   |
| define                   | fasili                     |
| definite                 | -enye mpaka                |
| deformation              | lemavu                     |
| degree                   | digrii                     |
| deka = deca              | deka                       |
| decameter                | dekamita                   |
| deliver                  | Wasilisha/toa              |
| demonstration            | kielelezo                  |
| density                  | uzito                      |
| depend                   | tegemea                    |
| dependent variable       | kigeugeu tegemezi          |
| derive                   | nyambua                    |
| derived unit             | kizio kilichonyambuliwa    |
| descend                  | shuka                      |
| descent                  | mteremko                   |
| design                   | unda                       |
| destructive              | -a haribifu                |
| destructive interference | mwingiliano haribifu       |
| detection                | ugunduzi                   |
| detector                 | kigunduzi                  |
| determine                | amua                       |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                          | SWAHILI                           |
|----------------------------------|-----------------------------------|
| deviate                          | kengeuka                          |
| device                           | kifaa                             |
| dewdrop                          | tone la umande                    |
| dew point                        | kiwango umande                    |
| diameter                         | kipenyo                           |
| diamond                          | almasi                            |
| diaphragm                        | kiwambo                           |
| differ                           | tofautiana                        |
| difference in electric potential | utofauti katika uwezo kwa kiumeme |
| diffract                         | sambaa                            |
| diffraction                      | msambazo                          |
| diffraction grating              | kiunzi cha msambazo               |
| diffuse                          | tawanya                           |
| diffuse reflection               | tawanya uakisi                    |
| digit                            | tarakimu                          |
| dimension                        | kipimo                            |
| dimmer                           | kiwashio                          |
| dip                              | zamisha                           |
| direction                        | mwelekeo                          |
| directly                         | moja kwa moja                     |
| discover                         | gundua                            |
| disintegrate                     | sambaratisha                      |
| disorder                         | vuruga                            |
| disperse                         | tawanya                           |
| dispersion                       | mtawanyo                          |
| displace                         | hamisha                           |
| displacement                     | mhamisho                          |
| disprove                         | kanusha                           |
| disregard                        | puuza                             |
| dissipate                        | tokomea                           |
| dissonance                       | sauti zisizolingana               |
| distance                         | umbali                            |
| distant                          | -a mbali                          |
| distort                          | haribu                            |
| distortion                       | uharibifu                         |
| distribute                       | sambaza                           |
| disturb                          | sumbua                            |
| disturbance                      | usumbufu                          |
| dive                             | piga mbizi                        |
| diver                            | mpiga mbizi                       |
| diverge                          | kengefu                           |
| diverging lens                   | lenzi mwachano                    |
| divide                           | gawa                              |
| divider                          | kigawanyaji                       |
| division                         | mgao                              |
| dock                             | kuli                              |
| dockhand                         | mpakizi                           |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI                     |
|--------------------------|-----------------------------|
| dog                      | mbwa                        |
| domain                   | kikoa                       |
| Doppler                  | Doppla                      |
| Doppler effect           | Athari ya Doppla            |
| Doppler shift            | kuhama kwa Doppla           |
| double                   | mara dufu                   |
| double slit diffraction  | mkengeuko wa mkato maradufu |
| drag                     | kokota                      |
| draw                     | chora                       |
| drop                     | tone                        |
| droplet                  | matone                      |
| drum                     | ngoma                       |
| ductility                | ushikamano                  |
| dust                     | vumbi                       |
| dynamics                 | mienendo                    |
| <b>E</b>                 |                             |
| ear                      | sikio                       |
| eardrum                  | kiwambo cha sikio           |
| echo                     | mwangwi                     |
| eclipse                  | kupatwa                     |
| eclipse of the sun       | kupatwa kwa jua             |
| ecological               | kiikolojia                  |
| ecology                  | ekolojia                    |
| economical               | -a kiuchumi                 |
| effect                   | athari                      |
| effective                | fanisi                      |
| effective resistance     | ukinzani sanifu             |
| effectively              | kwa ufanisi                 |
| efficiency               | ufanisi                     |
| effort                   | juhudi                      |
| Einstein                 | Einstein                    |
| elastic                  | nyumbufu                    |
| elastic collision        | mgongano nyumbufu           |
| elasticity               | unyumbufu                   |
| electric                 | umeme                       |
| electric current         | mkondo wa umeme             |
| electric field           | eneo la umeme               |
| electric field intensity | nguvu za eneo umeme         |
| electric field line      | mstari wa eneo la umeme     |
| electric force           | kani umeme                  |
| electric generator       | jenerator la umeme          |
| electric potential       | uwezo wa umeme              |
| electrode                | elektrodi                   |
| electromagnet            | sumaku-umeme                |
| electromagnetic          | -a sumaku-umeme             |
| electromagnetic force    | kani ya sumaku-umeme        |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                   | SWAHILI                    |
|---------------------------|----------------------------|
| electromagnetic induction | upitishaji wa sumaku-umeme |
| electromagnetic wave      | wimbi la sumaku-umeme      |
| electromagnetism          | usumaku-umeme              |
| electromotive (EMF)       | nyendo umeme (EMF)         |
| electron                  | elektroni                  |
| electron cloud            | wingu la elektroni         |
| electroscope              | kifaa cha elektroni        |
| elevator                  | lifti                      |
| eliminate                 | ondoa                      |
| ellipse                   | duaradufu                  |
| elongation                | kurefusha                  |
| embed                     | pachika                    |
| emerge                    | ibuka                      |
| emergency                 | dharura                    |
| emission spectrum         | spektra ya kutoa           |
| emit                      | toa                        |
| empirical                 | jarabati                   |
| enable                    | wezesha                    |
| enclose                   | ambatanisha                |
| encounter                 | kabiliana                  |
| energetic                 | -enye nguvu                |
| energetic state           | hali ya nguvu              |
| energy                    | nishati                    |
| energy crisis             | mgogoro wa nishati         |
| energy level              | kiwango cha nishati        |
| engineer                  | mhandisi                   |
| enormous                  | kubwa                      |
| enrichment                | kutajirisha                |
| enter                     | ingia                      |
| entropy                   | kipimo cha kelele          |
| equation                  | mlinganyo                  |
| equator                   | ikweta                     |
| equilibrant               | -a ulinganifu              |
| equilibrant force         | nguvu ya mlingano          |
| equilibrium               | ulinganifu                 |
| equilibrium position      | sehemu ya ulinganifu       |
| equipment                 | vyombo                     |
| equivalent                | sawa                       |
| erect                     | simamisha                  |
| essence                   | kiini                      |
| essentially               | kimsingi                   |
| ether                     | etha                       |
| evaporate                 | vukiza                     |
| evaporation               | mvuke                      |
| evenly                    | sawasawa                   |
| evenness                  | usawa                      |
| eventually                | hatimaye                   |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH              | SWAHILI                       |
|----------------------|-------------------------------|
| evidence             | ushahidi                      |
| except               | isipokuwa                     |
| exception            | kinzano                       |
| excited state        | hali ya msimko                |
| exert                | kaza                          |
| exhaust              | chenua                        |
| exhibit              | onyesha                       |
| exist                | wepo                          |
| expand               | panua                         |
| expansion            | upanuzi                       |
| expect               | tarajia                       |
| expel                | fukuza                        |
| experiment           | jaribio                       |
| explore              | chunguza                      |
| exponent             | namba kipeo                   |
| exponential          | -a namba kipeo                |
| exponential notation | nukuu za namba kipeo          |
| exposure             | mfichuo                       |
| express              | elezea                        |
| extend               | eneza                         |
| external             | -a nje                        |
| external force       | kani ya nje                   |
| extrapolation        | kubashiri thamani ya tarakimu |
| extreme              | kithiri                       |
| extremely            | iliyokithiri                  |
| <b>F</b>             |                               |
| faint                | zimia                         |
| Farad                | Faradi                        |
| farsightedness       | hali ya kuona mbali           |
| feat                 | tendo gumu                    |
| fiber                | uzi                           |
| fiber optics         | nyuzinyuzi za kioo            |
| fiction              | habari za kubuniwa            |
| field                | uga                           |
| filament             | nyuzinyuzi                    |
| final velocity       | kasi ya mwisho                |
| finger               | kidole                        |
| first law of motion  | sheria ya kwanza ya mwendo    |
| first neutron        | nyutroni ya kwanza            |
| first-order-line     | mstari wa kwanza wa mpangilio |
| fission              | ugavi                         |
| fixed                | isobadilika                   |
| flame                | mwali                         |
| flare                | waka                          |
| flatten              | tandaza                       |
| flick                | zungusha                      |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH            | SWAHILI                    |
|--------------------|----------------------------|
| flint glass        | kioo kigumu                |
| float              | elea                       |
| fluid              | ugiligili                  |
| fluorescent lamp   | taa ya umeme               |
| flute              | filimbi                    |
| flux               | tindikali                  |
| focal              | kitovu                     |
| focal length       | urefu wa kitovu            |
| focal point        | kitovu                     |
| focus              | kiini                      |
| fog                | ukungu                     |
| force              | Nguvu/kani                 |
| force of friction  | kani ya msugvano           |
| fork               | uma                        |
| form               | muundo                     |
| fraction           | sehemu                     |
| frame              | kiunzi                     |
| frame of reference | kiunzi cha marejeo         |
| framework          | mfumo                      |
| freedom            | uhuru                      |
| free-fall          | mwanguko                   |
| freezing point     | hatua ya kuganda           |
| Freon              | Freoni                     |
| frequency          | marudio                    |
| frequently         | mara kwa mara              |
| friction           | msugvano                   |
| frictional         | -enye msugvano             |
| frictionless       | bila msugvano              |
| frozen             | ilioganda                  |
| fundamental        | msingi                     |
| fur                | unyoya                     |
| furthermore        | isitoshe                   |
| fuse               | fyuzi                      |
| <b>G</b>           |                            |
| gain               | faida                      |
| galaxy             | galaksi/kundi la nyota     |
| galvanometer       | galvanometa                |
| galvanic           | -a nguvu ya umeme wa betri |
| galvanic cell      | betri                      |
| Gamma ray          | Miale ya Gamma             |
| gap                | mwanya                     |
| gas                | gesi                       |
| gas law            | sheria ya gesi             |
| gaseous            | -enye gesi                 |
| gasoline           | petroli                    |
| gauge              | geji                       |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                      | SWAHILI                           |
|------------------------------|-----------------------------------|
| Geiger-Muller tube           | neli ya majaribio ya Geiga-Muller |
| general theory of relativity | nadharia ya jumla ya uhusiano     |
| generate                     | zalisha                           |
| germanium                    | gerimani                          |
| giga                         | giga                              |
| give                         | toa                               |
| glance                       | tupia jicho                       |
| glass                        | glasi                             |
| glider                       | nyiririko                         |
| gluon                        | gluoni                            |
| gold                         | dhahabu                           |
| govern                       | tawala                            |
| gradual                      | -a polepole                       |
| gradually                    | polepole                          |
| grain                        | nafaka                            |
| grains                       | nafaka                            |
| gram                         | gramu                             |
| graph                        | grafu                             |
| graphical                    | -a grafu                          |
| grating                      | kiunzi cha nondo                  |
| gravitation                  | mvutano                           |
| gravitational field          | uga wa mvutano                    |
| gravitational force          | kani ya mvutano                   |
| gravitation mass             | uzito wa graviti                  |
| gravitation potential energy | mvutano wa nishati mwendo         |
| graviton                     | gravitoni                         |
| gravity                      | mvutano                           |
| green                        | kijani                            |
| ground state                 | hali ya chini                     |
| grounding                    | kianzio                           |
| gyroscope                    | giroskopu                         |
| <b>H</b>                     |                                   |
| Half-life                    | Nusu uhai                         |
| halt                         | Sitisha                           |
| hammer                       | nyundo                            |
| handle                       | mpini                             |
| harmonic                     | linganifu                         |
| harmonious                   | -enye mpangilio                   |
| haul                         | buruta                            |
| headlamp                     | tochi ya kichwa                   |
| heat                         | joto                              |
| heat effect                  | athari ya joto                    |
| heat engine                  | injini ya joto                    |
| heat of fusion               | kiungo cha joto                   |
| heat of vaporization         | mvuke wa joto                     |
| heat pump                    | pampu ya joto                     |



PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                          | SWAHILI                              |
|----------------------------------|--------------------------------------|
| specific heat                    | joto maalum                          |
| heavy                            | nzito                                |
| hecto                            | hekto                                |
| hectometer                       | hektomita                            |
| height                           | kimo                                 |
| Heisenberg uncertainty principle | kanuni isiyo ya hakika ya Heisenberg |
| helicopter                       | helikopta                            |
| Helium                           | Heliamu                              |
| hence                            | hivyo                                |
| Hertz                            | Hezi                                 |
| high temperature source          | chanzo cha halijoto ya juu           |
| hiker                            | mpanda mlima                         |
| hilly                            | -a mlima                             |
| hockey                           | hoki                                 |
| hollow                           | shimo                                |
| Hooke's law                      | sheria ya Hooke                      |
| horizontally                     | kimlalo                              |
| horn                             | pembe                                |
| huge                             | kubwa                                |
| hull                             | ganda                                |
| hydraulic                        | haidroli                             |
| hydraulic system                 | mfumo wa haidroli                    |
| hydrogen                         | hidrojeni                            |
| hydrodynamics                    | mienendo ya maji                     |
| hydrostatics                     | somo la maji tuli                    |
| <b>I</b>                         |                                      |
| ideal                            | kamilifu                             |
| ideal gas                        | gesi kamilifu                        |
| ideal gas law                    | sheria kamilifu ya gesi              |
| ideal mechanical advantage (IMA) | manufaa ya kimakenika kamilifu (IMA) |
| ignite                           | washa                                |
| ignition                         | mwako                                |
| illuminance                      | ung'avu                              |
| illuminate                       | angaza                               |
| illuminated body                 | kiwiliwili kilichoangazwa            |
| illumination                     | mwangaza                             |
| illusion                         | mauzauza                             |
| image                            | taswira                              |
| imagine                          | dhani                                |
| immerse                          | zamisha                              |
| immersion                        | kuzamishwa                           |
| immersion heater                 | kchemshio                            |
| impart                           | tawanya                              |
| implication                      | maana                                |
| impossible                       | haiwezekani                          |
| impulse                          | msukumo                              |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                | SWAHILI                     |
|------------------------|-----------------------------|
| incandescent           | angavu                      |
| incandescent lamp      | balbu                       |
| incident               | tukio                       |
| Incident pulse         | mapigo ya tukio             |
| Incident wave          | wimbi la tukio              |
| incision               | chanjo                      |
| inclined               | betuliwa                    |
| Inclined plane         | bapa la kubetuliwa          |
| incompressible         | isiyoeleweka                |
| increase               | ongeza                      |
| independent variable   | kiwango huru                |
| independence           | uhuru                       |
| Index of refraction    | kielezo cha upindo wa wimbi |
| indicate               | ashiria                     |
| indication             | ishara                      |
| individual             | binafsi                     |
| induction              | upitishaji                  |
| inductive reactance    | mmenyuko wa usakinishaji    |
| inelastic              | isionyumbufu                |
| inelastic collision    | mgongano usionyumbufu       |
| inertia                | inesha                      |
| inertial mass          | uzito inesha                |
| inexpensive            | rahisi                      |
| inflate                | puza                        |
| influence              | ushawishi                   |
| initial                | mwanzo                      |
| initial momentum       | momenta ya mwanzo           |
| initial velocity       | kasimwelekeo ya mwanzo      |
| inner ear              | sikio la ndani              |
| input                  | pembejeo                    |
| insect                 | mdudu                       |
| insert                 | ingiza                      |
| instant                | papo hapo                   |
| instantaneous          | -a papo hapo                |
| instantaneous speed    | kasi ya papo hapo           |
| instantaneous velocity | kasimwelekeo ya papo hapo   |
| instantaneously        | papo hapo                   |
| instead                | badala ya                   |
| instrument             | chombo                      |
| insulate               | kinga                       |
| insulator              | kihami                      |
| intake                 | kipenyo                     |
| integer                | namba kamili                |
| integrate              | unganisha                   |
| integrated circuit     | saketi iliyounganishwa      |
| intensity              | kiwango                     |
| interaction            | mwingiliano                 |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI                       |
|--------------------------|-------------------------------|
| intercept                | kutana                        |
| interfere                | ingiliana                     |
| interference             | mwingiliano                   |
| intermediate             | -a kati                       |
| internal                 | -a ndani                      |
| internal energy          | nguvu ya ndani                |
| internal force           | kani ya ndani                 |
| interparticle            | baina ya chembe               |
| interpretation           | tafsiri                       |
| interrupt (to)           | ingilia (kwenye)              |
| interstellar             | kati ya nyota                 |
| interval                 | muda                          |
| interlock                | kiungo                        |
| invent                   | vumbua                        |
| inverse                  | kinyume                       |
| inverse variation        | tofauti pindu                 |
| inversely                | -a kinyume                    |
| invert                   | pindua                        |
| investigate              | chunguza                      |
| inward                   | ndani                         |
| ion                      | ioni                          |
| iridium                  | iridi                         |
| iron                     | chuma                         |
| irrigate                 | nyunyiza                      |
| isolate                  | tenga                         |
| isolated system          | mfumo uliotengwa              |
| isotope                  | isotopi                       |
| <b>J</b>                 |                               |
| jet plane                | ndege ya jeti                 |
| jeweler                  | sonara                        |
| joule                    | jouli                         |
| Jupiter                  | Jupita                        |
| <b>K</b>                 |                               |
| Kelvin                   | Kelvini                       |
| Kelvin scale             | kipimo cha Kelvini            |
| kidney                   | figo                          |
| kilo                     | kilo                          |
| kilogram                 | kilogramu                     |
| kilometer                | kilomita                      |
| kilopascal               | kilopaskali                   |
| kilowatt                 | kilowati                      |
| kilowatt hour            | saa kwa kilowati              |
| kinematics               | kinematika                    |
| kinetic energy           | nishati mwendo                |
| kinetic molecular theory | nadharia ya molekoyuli mwendo |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                         | SWAHILI                      |
|---------------------------------|------------------------------|
| kinetic theory                  | nadharia ya mwendo           |
| knapsack                        | shanta                       |
| knob                            | kiwambo                      |
| krypton                         | kriptoni                     |
| <b>L</b>                        |                              |
| laboratory                      | maabara                      |
| lack                            | ukosefu                      |
| laser                           | leza                         |
| lattice                         | kiunzi cha fito              |
| launch                          | zindua                       |
| law                             | sheria                       |
| law of action and reaction      | sheria ya kitendo na mjibizo |
| law of conservation of momentum | sharia ya uhifadhi momenta   |
| lawn                            | uwanja wa nyasi              |
| lawn mower                      | mashine ya kukatia nyasi     |
| lead                            | ongoza                       |
| leak                            | vuja                         |
| ledge                           | shubaka                      |
| left-hand rule                  | kanuni ya mkono wa kushoto   |
| legend                          | hekaya                       |
| length                          | urefu                        |
| lengthen                        | refusha                      |
| lens                            | lenzi                        |
| Lenz's Law                      | sheria ya lenzi              |
| lepton                          | leptoni                      |
| level                           | kiwango                      |
| lever                           | wenzo                        |
| Leyden Jar                      | Gudulia la Leyden            |
| liberate                        | komboa                       |
| librarian                       | mkutubi                      |
| lift                            | inua                         |
| light                           | mwanga                       |
| light wave                      | wimbi la mwanga              |
| likewise                        | sawasawa                     |
| line                            | mstari                       |
| linear                          | -a mstari                    |
| linear accelerator              | kichapuzi wima               |
| linear equation                 | mlinganyo wima               |
| liner                           | meli ya abiria               |
| lip                             | lamba                        |
| liquefy                         | yayusha                      |
| liquid                          | kioevu                       |
| liter                           | lita                         |
| literally                       | moja kwa moja                |
| location                        | eneo                         |
| lodestone                       | sumaku                       |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH              | SWAHILI                   |
|----------------------|---------------------------|
| longitudinal         | -a longitudo              |
| longitudinal wave    | wimbi la longitudo        |
| loudness             | ukelele                   |
| loudspeaker          | kikuza sauti              |
| low                  | chini                     |
| low temperature sink | karo la halijoto ya chini |
| lubricant            | kilainishi                |
| lumen                | lumeni                    |
| luminous             | -a kung'aa                |
| luminous flux        | tindikali angavu          |
| luminous intensity   | mkazo angavu              |
| lunar                | -a mwezi                  |
| lunar module         | moduli ya mwezi           |
| lung                 | pafu                      |
| <b>M</b>             |                           |
| magenta              | udhurungi                 |
| magnet               | sumaku                    |
| magnetic             | -a sumaku                 |
| magnetic field       | uga wa sumaku             |
| magnetic field line  | msari wa uga wa sumaku    |
| magnetic flux        | tindikali ya sumaku       |
| magnetic induction   | upitishaji wa sumaku      |
| magnetism            | usumaku                   |
| magnification        | ukuzaji                   |
| magnify              | kuza                      |
| magnifying glass     | glasi ya kukuzia          |
| magnitude            | ukubwa                    |
| maintain             | dumisha                   |
| malleability         | kifulika                  |
| manner               | tabia                     |
| manufacture          | tengeneza                 |
| mass                 | tungamo                   |
| mass defect          | hitilafu ya tungamo       |
| mass number          | namba ya tungamo          |
| mass spectrograph    | spektrografu ya tungamo   |
| massive              | kubwa                     |
| mathematical science | sayansi ya hisibati       |
| mathematically       | kihisabati                |
| mathematician        | mwanahisabati             |
| matter               | maada                     |
| matter wave          | wimbi la maada            |
| maximum              | -a mwisho kabisa          |
| mean                 | wastani                   |
| measurable           | -a kupimika               |
| measurement          | kipimo                    |
| mechanical advantage | manufaa ya kimakenika     |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH           | SWAHILI               |
|-------------------|-----------------------|
| mechanical energy | nishati ya kimakenika |
| mechanical force  | kani ya kimakenika    |
| mechanical wave   | wimbi la kimakenika   |
| medical           | -a tiba               |
| medium            | njia/-a kati          |
| mega              | kubwa                 |
| megahertz         | megahezi              |
| megawatt          | megawati              |
| melt              | yeyuka                |
| melting point     | kiwango cha kuyeyuka  |
| membrane          | utando                |
| mercury           | zebaki                |
| mercury barometer | baromita ya zebaki    |
| meson             | mesoni                |
| metabolism        | umetaboli             |
| metal runner      | chuma cha utelezo     |
| meteorology       | metorolojia           |
| meteoroid         | kimondo               |
| methanol          | methano               |
| method            | mbinu                 |
| meticulously      | kwa uangalifu sana    |
| metric system     | mfumo wa mita         |
| micro             | dogo                  |
| microfarad        | faradi ndogo          |
| microphone        | kipaza sauti          |
| microprocessor    | kompyuta ndogo        |
| microscope        | darubini              |
| microscopic       | -a kidarubini         |
| microwave         | mikrowevu             |
| middle ear        | sikio la kati         |
| Milky Way Galaxy  | Galaksi ya Kilimia    |
| milli             | mili                  |
| milliampere       | miliampea             |
| millibar          | milibari              |
| milligram         | miligramu             |
| milliliter        | mililita              |
| millimeter        | milimita              |
| mirage            | mazigazi              |
| mirror            | kioo                  |
| mix               | changanya             |
| mixed             | iliyochanganywa       |
| mixture           | mchanganyiko          |
| moderate          | -a kati               |
| moderator         | msimamizi             |
| modification      | badiliko              |
| modify            | badili                |
| module            | moduli                |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                               | SWAHILI                                  |
|---------------------------------------|--|
| mole                                  | moli                                     |
| molecule                              | molekyuli                                |
| momenta                               | nguvu                                    |
| momentum                              | momenta                                  |
| motion                                | mwendo                                   |
| mouthpiece                            | mdakale                                  |
| mower                                 | mashine ya kukata nyasi                  |
| mud                                   | matope                                   |
| multiple                              | kadhaa                                   |
| multiplication                        | kuzidisha                                |
| multiply                              | zidisha                                  |
| muon=meson                            | muoni=mesoni                             |
| mutual                                | -a pande mbili                           |
| mutually                              | kwa pande mbili                          |
| muzzle                                | mdomo                                    |
| <b>N</b>                              |  |
| Nano                                  | Nano                                     |
| nanometer                             | nanomita                                 |
| nanosecond                            | nanosekunde                              |
| naphtha                               | nafta                                    |
| nasal                                 | -a pua                                   |
| natural                               | -a asili                                 |
| nature of the surface                 | asili ya uso                             |
| nearsightedness                       | uoni wa karibu                           |
| negative                              | kinyume                                  |
| negative charge                       | chaji ya kinyume                         |
| neon                                  | neoni                                    |
| net force                             | kani kamili                              |
| neutral                               | sio egemea upande wowote                 |
| neutrino                              | nyutrino                                 |
| neutron                               | nyutroni                                 |
| newton                                | nyutoni                                  |
| Newton                                | Nyutoni                                  |
| Newton's First Law of Motion          | Kanuni ya Kwanza ya Nyutoni ya Mwendo    |
| Newton's Second Law of Motion         | Kanuni ya Pili ya Nyutoni ya Mwendo      |
| Newton's Third Law of Motion          | Kanuni ya Tatu ya Nyutoni ya Mwendo      |
| nickel                                | nikeli                                   |
| nitrogen                              | nitrojeni                                |
| nodal                                 | fundo                                    |
| nodal line                            | mstari wa fundo                          |
| node                                  | fundo                                    |
| non perpendicular component           | kijenzi kisicho na pembe mraba           |
| non perpendicular component of vector | kijenzi kisicho na pembe mraba cha vekta |
| normal force                          | kani ya kawaida                          |
| north pole                            | ncha ya kaskazini                        |
| North Pole                            | Ncha ya Kaskazini                        |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                  | SWAHILI                    |
|--------------------------|----------------------------|
| Northern Hemisphere      | Kizio cha Kaskazini        |
| northern light           | mwanga wa kaskazini        |
| notation                 | nukuu                      |
| note                     | dokezo                     |
| nuclear                  | nyuklia                    |
| nuclear bombardment      | shambulio la nyuklia       |
| nuclear model            | modeli ya nyuklia          |
| nuclear potential energy | nishati tuli ya nyuklia    |
| nuclear reaction         | mjibizo wa nyuklia         |
| nuclei                   | viini                      |
| nucleon                  | kiini                      |
| nucleus                  | kiini                      |
| nuclide                  | nuklidi                    |
| numerically              | kwa tarakimu               |
| <b>O</b>                 |                            |
| obey                     | tii                        |
| oboe                     | zumari ndogo               |
| observable               | -a kuonekana               |
| observation              | kuangalia                  |
| observatory              | mahali pa kuangalia jua    |
| observe                  | angalia                    |
| obstacle                 | kizuizi                    |
| obtain                   | pata                       |
| occupy                   | chukua                     |
| occur                    | tokea                      |
| octagon                  | pembenane                  |
| octagonal                | -a pembenane               |
| octave                   | sauti nane                 |
| Ohm                      | Ohm                        |
| Ohm's Law                | Sheria ya Ohm              |
| opaque                   | -sio penyeka nuru          |
| operation                | shughuli                   |
| oppose                   | pinga                      |
| optical                  | -a macho                   |
| optical density          | uzito wa macho             |
| optics                   | -a macho                   |
| orbit                    | mzunguko                   |
| organ                    | ogani                      |
| orientation              | mwelekeo                   |
| origin                   | asili                      |
| oscillate                | zunguka                    |
| oscillation              | mzunguko                   |
| oscilloscope             | mashine ya kupima mzunguko |
| outer ear                | sikio la nje               |
| outlet                   | njia                       |
| output                   | zao                        |



PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH              | SWAHILI              |
|----------------------|----------------------|
| outward              | kwenda nje           |
| oval                 | duara dufu           |
| overall              | jumla                |
| overload             | Zidisha mzigo        |
| overlook             | puuza                |
| overtones            | vidokezo             |
| oxygen               | oksijeni             |
| <b>P</b>             |                      |
| painstakingly        | kwa uangalifu        |
| palm                 | kiganja              |
| parabola             | parabola             |
| parabolic            | -a parabola          |
| parachute            | parachuti            |
| paraffin             | mafuta ya taa        |
| parallax             | kitanguo             |
| parallel             | sambamba             |
| parallel connection  | mwunganiko sambamba  |
| parallel force       | kani sambamba        |
| particle             | chembe               |
| particle accelerator | kichapuzi chembe     |
| Pascal               | Pascal               |
| Pascal's Principle   | Kanuni ya Pascal     |
| patch                | kiraka               |
| path                 | njia                 |
| pavement             | njia ya miguu        |
| peculiar             | -a pekee             |
| peculiarity          | upekee               |
| pendulum             | timazi               |
| performer            | mchezaji             |
| perimeter            | mzingo               |
| period               | kipindi              |
| periodic             | -a kipindi           |
| permanently          | kwa kudumu           |
| perpendicular        | -a wima              |
| perpendicular force  | kani ya wima         |
| perpendicularly      | kwa wima             |
| perspective          | twasira              |
| perspiration         | kutoa jasho          |
| phase                | awamu                |
| phenomena            | matukio              |
| phenomenon           | tukio                |
| philosopher          | mwanafalsafa         |
| phosphor             | fosferi              |
| phosphorescence      | mmemetuko            |
| photoelectric effect | athari ya umeme-nuru |
| photoflash           | radi ya picha        |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH            | SWAHILI               |
|--------------------|-----------------------|
| photography        | upigaji-picha         |
| photo resistor     | kipingamizi cha picha |
| photovoltaic       | kutokeza umeme        |
| photovoltaic cell  | betri ya umeme        |
| physical           | -a kimwili            |
| physical phenomena | tukio la kimwili      |
| physicist          | mwanafizikia          |
| physics            | fizikia               |
| Pico               | piko                  |
| Pico farad         | piko faradi           |
| pier               | gati                  |
| piezoelectricity   | umeme wa piezo        |
| pig                | nguruwe               |
| pigment            | chembe za rangi       |
| pile               | rundo                 |
| pinna              | sikio la nje          |
| pipe               | bomba                 |
| pistol             | bastola               |
| piston             | mchi wa mashine       |
| pitch              | bereu                 |
| pith               | kiini                 |
| pith ball          | mpira wa kiini        |
| plane mirror       | kioo bapa             |
| planet             | sayari                |
| plasma             | plazma                |
| plastic            | plastiki              |
| platinum           | platinamu             |
| plot               | chora                 |
| plunge             | tumbukiza             |
| polarity           | kingamo               |
| polarized          | iliyokingamizwa       |
| plane polarized    | bapa iliyokingamizwa  |
| polarization       | ukingamizaji          |
| polarizer          | kingamizo             |
| pole               | ncha                  |
| pollution          | uchafuzi              |
| pound              | ratili                |
| portion            | sehemu                |
| position           | nafasi                |
| positive           | chanya                |
| positive charge    | chaji chanya          |
| positron           | positroni             |
| possess            | miliki                |
| postulate          | dai                   |
| pot                | chungu                |
| potential          | tuli                  |
| potential energy   | nishati tuli          |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                    | SWAHILI                         |
|----------------------------|---------------------------------|
| potentiometer              | kipima nishati tuli             |
| pour                       | mwaga                           |
| power                      | nguvu                           |
| practical                  | yakini                          |
| precise                    | sahihi                          |
| precisely                  | kwa usahihi                     |
| precision                  | usahihi                         |
| predict                    | bashiri                         |
| predominate                | tawala                          |
| prefix                     | tanguliza                       |
| preliminary                | -a mwanzo                       |
| pressure                   | shinikizo                       |
| presumably                 | kwa kudhania                    |
| prevent                    | zuia                            |
| previous                   | awali                           |
| previously                 | awali                           |
| primary                    | msingi                          |
| primary coil               | koili ya msingi                 |
| primary color              | rangi ya msingi                 |
| primary pigment            | chembechembe za rangi za msingi |
| principle                  | kanuni                          |
| principal axis             | mhimili mkuu                    |
| principal focus            | lengo kuu                       |
| principal focal point      | mwelekeo lengo mkuu             |
| principle of superposition | kanuni ya nafasi kuu            |
| prism                      | mche                            |
| probability                | uwezekano                       |
| probe                      | chunguza                        |
| procedure                  | taratibu                        |
| process                    | mchakato                        |
| productivity               | tija                            |
| programmable               | -a mpango                       |
| prohibit                   | zuia                            |
| project                    | mradi                           |
| projectile                 | mshale                          |
| projectile motion          | mwendo wa mshale                |
| propel                     | zungusha                        |
| property                   | tabia/sifa                      |
| proportional               | sawa                            |
| proportionality            | usawa                           |
| proportionality constant   | usawa usiobadilika              |
| propose                    | pendekeza                       |
| proton                     | protoni                         |
| protractor                 | kipimapembe                     |
| prove                      | hakiki                          |
| proximity                  | ukaribu                         |
| puck                       | kisahani                        |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH              | SWAHILI                      |
|----------------------|------------------------------|
| puddle               | kidimbwi                     |
| pull-tab             | kichupo cha kuvuta           |
| pulley               | roda                         |
| pulsar               | pulsa                        |
| pulse                | papo                         |
| pump                 | pampu                        |
| push                 | sukuma                       |
| putty                | puti                         |
| Pythagorean          | Mwanapaithegorasi            |
| Pythagorean theorem  | Kanuni ya Paithegorasi       |
| <b>Q</b>             |                              |
| quadrangular         | -a pembenne                  |
| quality              | usawa                        |
| quantity             | idadi                        |
| quantize             | weka idadi                   |
| quantum mechanics    | makenika ya kwanta           |
| quantum number       | namba ya kwanta              |
| quantum theory       | nadharia ya kwanta           |
| quark                | kwaki                        |
| quark model nucleon  | nyukliasi ya modeli ya kwaki |
| quotient             | hisa                         |
| <b>R</b>             |                              |
| raceway, racetrack   | mkondo, utambaazi wa mbio    |
| racquet              | raketi                       |
| radial               | -a miali                     |
| radially             | kwa miali                    |
| radiation            | mionzi                       |
| radiator             | rejeta                       |
| radio                | redio                        |
| radio wave           | wimbi la redio               |
| radioactive          | -a knunurifu                 |
| radioactive decay    | uozo wa kinunurifu           |
| radioactive material | zana za kinunurifu           |
| rainbow              | upinde wa mvua               |
| raise                | inua                         |
| ramp                 | mteremko                     |
| random               | kiholela                     |
| range                | safu                         |
| rank                 | daraja                       |
| ray                  | mwale                        |
| ray optics           | nuru ya mwale                |
| razor                | wembe                        |
| reaction             | mjibizo                      |
| readily              | chapuchapu                   |
| real                 | halisi                       |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                 | SWAHILI                                      |
|-------------------------|--|
| real image              | twasira halisi                               |
| realistic               | kihalisia                                    |
| rebound                 | duta   |
| reciprocal              | pande zote                                   |
| recombine               | ungana tena                                  |
| recognize               | tambua                                       |
| rectangular             | -a mstatili                                  |
| red                     | nyekundu                                     |
| redefine                | fasili upya                                  |
| reed                    | tete   |
| reestablish             | imarisha upya                                |
| refer                   | rejea  |
| reference               | marejeo                                      |
| reference point         | kiini cha marejeo                            |
| reflect                 | akisi  |
| reflection              | uakisi                                       |
| refraction              | upindo wa wimbi                              |
| refrigerator            | jokofu                                       |
| regard                  | jali   |
| region                  | eneo   |
| register                | sajili                                       |
| regular reflection      | uakisi wa kawaida                            |
| regulate                | dhibiti                                      |
| reinforce               | imarisha                                     |
| reinforcement           | uimarishaji                                  |
| relate                  | husiana                                      |
| relationship            | uhusiano                                     |
| relatively              | kiasi  |
| relativity              | nadharia ya mwendo wakati na kiasi vinawiana |
| release                 | achia  |
| remain                  | baki   |
| remainder               | baki   |
| remove                  | ondoa  |
| renew                   | fanya upya                                   |
| repeat                  | rudia  |
| repel                   | fukuza                                       |
| repetitious             | -a marudio                                   |
| replace                 | badili                                       |
| represent               | wakilisha                                    |
| repulsion               | kutotangamana                                |
| repulsive               | -a kutotangamana                             |
| research                | utafiti                                      |
| resist                  | kinza  |
| resistance              | ukinzani                                     |
| resistor                | kikinzanishi                                 |
| resolve                 | suluhisha                                    |
| resolving power of lens | kusuluhisha nguvu za lenzi                   |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH             | SWAHILI            |
|---------------------|--------------------|
| resonance           | mwangwi            |
| respective          | husika             |
| response            | jibu               |
| restatement         | tamko jipya        |
| restoring force     | kani rejeshi       |
| resultant           | tokeo              |
| retain              | bakiza             |
| retina              | retina             |
| reveal              | fichua             |
| reverse             | pindua             |
| revolve             | zunguka            |
| rheostat            | rheostati          |
| ribbon              | utepe              |
| ridge               | mgongo             |
| right angle         | pembe mraba        |
| rigid               | ngumu              |
| ripple              | kiwimbi            |
| ripple tank         | tangi la kiwimbi   |
| rise                | inuka              |
| rivet               | ribiti             |
| robot               | roboti             |
| robotics            | -a roboti          |
| rocket              | roketi             |
| rocking             | bembea             |
| roll                | bingiria           |
| rope                | kamba              |
| rubber ball         | mpira              |
| rush                | harakisha          |
| <b>S</b>            |                    |
| sac                 | kifuko             |
| sack                | gunia              |
| sag                 | mlegeo             |
| sailor              | baharia            |
| sap                 | utomvu             |
| satellite           | setelaiti          |
| saxophone           | saksafoni          |
| scaffold            | jukwaa             |
| scalar              | skala              |
| scalar quantity     | kipimo cha skala   |
| scale               | kipimo             |
| schematic           | -a kielelezo       |
| scientific          | kisayansi          |
| scientific method   | njia ya kisayansi  |
| scientific notation | nukuu ya kisayansi |
| scintillation       | mmeto              |
| scissors            | makasi             |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                 | SWAHILI                            |
|-------------------------|------------------------------------|
| screen                  | skrini                             |
| screw                   | parafujo                           |
| screwdriver             | bisibisi                           |
| scuba                   | chombo cha wapiga mbizi            |
| sea level               | usawa wa bahari                    |
| seal                    | mhuri                              |
| second                  | pili                               |
| secondary               | -a pili                            |
| secondary coil          | koili ya pili                      |
| secondary color         | rangi ya pili                      |
| secondary pigment       | chembechembe za rangi ya pili      |
| second left-hand rule   | kanuni ya pili ya mkono wa kushoto |
| second-order line       | mstari wa mpangilio wa pili        |
| selenium                | seleniamu                          |
| self-inductance         | kujipitisha enyewe                 |
| semiconductor           | nusu kipitishi                     |
| sensation               | hisia                              |
| sense                   | hisi                               |
| sensitive               | nyeti                              |
| separate                | tenga                              |
| separated               | iliyotengwa                        |
| series                  | mfuatano                           |
| series connection       | muunganiko fuatano                 |
| series-parallel circuit | saketi ya mfuatano sambamba        |
| sewing                  | kushona                            |
| sewing needle           | sindano ya kushonea                |
| shadow                  | kivuli                             |
| shape                   | umbo                               |
| share                   | gawio                              |
| ship builder            | mjenzi meli                        |
| shirt                   | shati                              |
| short circuit           | saketi fupi                        |
| shot-putter             | mchezaji mpira wa kurusha          |
| shovel                  | sepetu                             |
| shrink                  | nywea                              |
| sidewalk                | kutembea pembeni                   |
| sideway                 | njia ya pembeni                    |
| significant             | muhimu                             |
| significant digit       | tarakimu muhimu                    |
| silicon                 | silikoni                           |
| silk                    | hariri                             |
| silver                  | fedha                              |
| simple harmonic motion  | mwendo muafaka rahisi              |
| simple machine          | mashine rahisi                     |
| simplify                | rahisisha                          |
| single-slit diffraction | mkengeuko rahisi                   |
| sink                    | karo                               |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH              | SWAHILI                            |
|----------------------|------------------------------------|
| sine                 | saini                              |
| sinus                | uwazi katika mfupa                 |
| sinkable             | -a kuzama                          |
| siren                | king'ora                           |
| skating              | mchezo wa kuteleza                 |
| skydiver             | mrukaji hewani                     |
| sled                 | sleji                              |
| sliding friction     | msugvano wa mtelezo                |
| slightly             | kidogo                             |
| slit                 | mwanya                             |
| slope                | mteremko                           |
| smokestack           | bomba la moshi                     |
| smooth               | laini                              |
| snap                 | fyetua                             |
| Snell's Law          | sheria ya Snell                    |
| snowmobile           | chombo cha kuteleza kwenye theluji |
| socket               | soketi                             |
| sodium               | sodiamu                            |
| solar                | -a jua                             |
| solar cell           | seli ya jua                        |
| solid                | yabisi                             |
| solid state          | hali yabisi                        |
| solidity             | uyabisi                            |
| solution             | suluhu                             |
| sonar                | sona                               |
| soot                 | masizi                             |
| soprano              | sauti ya kwanza                    |
| sound wave           | wimbi la sauti                     |
| South Pole           | Ncha ya Kusini                     |
| spacecraft           | chomboanga                         |
| spark                | cheche                             |
| specific             | mahsusni                           |
| specific heat        | joto mahsusni                      |
| speck                | alama                              |
| spectrometer         | spektromita                        |
| spectroscope         | spektraskopu                       |
| spectrum             | spektra                            |
| speed                | kasi                               |
| sphere               | tufe                               |
| spherical            | -a tufe                            |
| spherical aberration | hitilafu ya tufe                   |
| spider web           | utando wa buibui                   |
| spill                | mwaga                              |
| spin                 | zungusha                           |
| spiral               | -a mzunguko                        |
| split                | tawanya                            |
| spoiler              | mharabu                            |



PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                       | SWAHILI                        |
|-------------------------------|--------------------------------|
| spontaneously                 | bila kupangwa                  |
| spoon                         | kijiko                         |
| spray                         | fukiza                         |
| spread                        | tandaza                        |
| spring                        | chipuo                         |
| sprinkle                      | nyunyiza                       |
| square                        | mraba                          |
| standard atmospheric pressure | kiwango cha shinikizo la anga  |
| startling                     | -a kushtusha                   |
| state                         | hali                           |
| standing                      | -a kusimama                    |
| standing wave                 | wimbi la msimamo               |
| static friction               | msugvano tuli                  |
| static electricity            | umeme tuli                     |
| statics                       | utulivu                        |
| stationary                    | isiyosonga                     |
| steam                         | mvuke                          |
| stem                          | shina                          |
| step-down transformer         | transfoma ya kupunguza volteji |
| step-up transformer           | transfoma ya kuongeza volteji  |
| stick                         | nata                           |
| stiffness                     | ugumu                          |
| still                         | tulivu                         |
| stimulate                     | sisimua                        |
| stimulated emission           | utoaji uliosisimuliwa          |
| stitch                        | sheleli                        |
| stone                         | jiwe                           |
| store                         | weka                           |
| straight                      | -lionyooka                     |
| straighten                    | -lionyoosha                    |
| strain                        | jikaza                         |
| straw                         | mrija                          |
| strength                      | nguvu                          |
| stretch                       | nyosha                         |
| strike                        | piga                           |
| string                        | uzi                            |
| strip                         | vua                            |
| strobe                        | kimulimuli                     |
| strobe light                  | mwanga wa kimulimuli           |
| strobe photography            | picha ya kimulimuli            |
| strong nuclear force          | kani kubwa ya nyukilia         |
| structure                     | muundo                         |
| subatomic                     | nusuatomiki                    |
| submarine                     | nyambizi                       |
| submerge                      | zamisha                        |
| substance                     | dutu                           |
| substitute                    | mbadala                        |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                             | SWAHILI                       |
|-------------------------------------|-------------------------------|
| subtraction                         | kutoa                         |
| succession                          | mfululizo                     |
| suddenly                            | ghafila                       |
| sufficiently                        | -a kutosha                    |
| sulfide                             | sulfaidi                      |
| summarize                           | fupisha                       |
| superposition                       | pishanisha                    |
| supersonic                          | kasi sana                     |
| support                             | usaidizi                      |
| surface                             | uso                           |
| surface tension                     | mvuto wa uso wa eneo          |
| surface wave                        | wimbi la eneo                 |
| surgery                             | upasujaji                     |
| surplus                             | ziada                         |
| suspect                             | shuku                         |
| suspend                             | simamisha                     |
| Swedish                             | Kiswidi                       |
| sweep                               | fagia                         |
| swing                               | bembea                        |
| swing seat                          | kiti cha bembea               |
| swirl                               | zunguka upesiupesi            |
| symbol                              | alama                         |
| symmetrical                         | linganifu                     |
| synchrocyclotron                    | ulandanishi wa siklotroni     |
| systematic                          | -a utaratibu                  |
| systematic method                   | mbinu ya utaratibu            |
| <b>T</b>                            |                               |
| table                               | jedwali                       |
| tangent                             | mstari mguso                  |
| tank                                | tangi                         |
| technique                           | mbinu                         |
| technologist                        | mwanateknolojia               |
| telescope                           | darubini                      |
| temperature                         | halijoto                      |
| temperature scale                   | kipimo cha halijoto           |
| temporary                           | muda mfupi                    |
| tend                                | elekea                        |
| tendency                            | mwelekeo                      |
| tensile                             | -a kutanuka                   |
| tension                             | mvuto                         |
| terminal velocity                   | kasi ya mwisho                |
| terrestrial                         | -a dunia                      |
| tesla                               | tesla                         |
| tetrachloride                       | tetrakloridi                  |
| The Law of Conservation of Energy   | Sheria ya Uhifadhi wa Nishati |
| The Law of Conservation of Momentum | Sheria ya Uhifadhi wa Momenta |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                          | SWAHILI                                |
|----------------------------------|--|
| The Law of Reflection            | Sheria ya Uakisi                       |
| The first law of Thermodynamics  | Sheria ya kwanza ya Mabadiliko ya Joto |
| The second law of Thermodynamics | Sheria ya pili ya Mabadiliko ya Joto   |
| theoretical physicist            | mwanafizikia wa kinadharia             |
| theory                           | nadharia                               |
| theory of relativity             | nadharia ya uwiano                     |
| thermal                          | -a joto                                |
| thermal energy                   | nishati ya halijoto                    |
| thermal equilibrium              | msawazo wa halijoto                    |
| thermal expansion                | upanuzi wa halijoto                    |
| thermodynamics                   | mabadiliko ya joto                     |
| thermometer                      | kipimajoto                             |
| thermometry                      | upimaji joto                           |
| thermonuclear                    | joto la nyuklia                        |
| thermonuclear reaction           | mjibizo wa joto la nyuklia             |
| thermostat                       | kisawazishaji joto                     |
| thin                             | embamba                                |
| thin film                        | mkanda mwembamba                       |
| thorium                          | thoriumu                               |
| thread                           | uzi                                    |
| threshold                        | kilele                                 |
| throat                           | koo                                    |
| thumb                            | kidole gumba                           |
| tide                             | wimbi                                  |
| tighten                          | kaza                                   |
| tightly                          | kwa kukaza                             |
| tilt                             | pindua                                 |
| timbre                           | tabia ya sauti                         |
| time                             | muda                                   |
| tiny                             | -embamba                               |
| tire                             | tairi                                  |
| tissue                           | tishu                                  |
| tolerate                         | stahimili                              |
| toner                            | wino                                   |
| tongue                           | ulimi                                  |
| torr                             | tori                                   |
| torsion                          | msokoto                                |
| torsion balance                  | usawa wa msokoto                       |
| total internal reflection        | jumla ya uakisi wa ndani               |
| tower                            | mnara                                  |
| tractor                          | trekta                                 |
| train                            | gari moshi                             |
| trajectory                       | njia                                   |
| trampoline                       | turubali                               |
| tranquilizer                     | kitulizo                               |
| transducer                       | kigeuzi nishati                        |
| transfer                         | uhamisho                               |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH                 | SWAHILI                        |
|-------------------------|--------------------------------|
| transformer             | transfoma                      |
| transistor              | transista                      |
| translucent             | -a kupenyeza mwanga            |
| transmission            | urushaji                       |
| transmit                | rusha                          |
| transmitted wave        | wimbi lililorushwa             |
| transmutation           | mgeuko                         |
| transparent             | angavu                         |
| transverse              | kingamo                        |
| transverse wave         | wimbi kingamo                  |
| trench                  | mfereji                        |
| triangle                | pembetatu                      |
| trigger                 | fyatua                         |
| trigonometry            | trigonometri                   |
| trillion                | trilioni                       |
| trombone                | tromboni                       |
| trough                  | kihori                         |
| trumpet                 | tarumbeta                      |
| tuba                    | tarumbeta kubwa                |
| tube                    | neli ya majaribio              |
| tune                    | tuni                           |
| tuning fork             | chuma cha noti                 |
| tungsten                | tungsteni                      |
| tunnel                  | handaki                        |
| turbulent               | -a ghasia                      |
| twice                   | mara mbili                     |
| twirl                   | zungusha                       |
| twist                   | sokota                         |
| <b>U</b>                |                                |
| ultrasonography         | utumizi wa mawimbi ya sauti    |
| ultrasound              | teknolojia ya mawimbi ya sauti |
| unaffected              | isiyoathirika                  |
| unavailability          | kutopatikana                   |
| unbalance               | kutokuwa na urari              |
| unbalance force         | kani isiyokuwa na urari        |
| uncertainty             | sintofahamu                    |
| unchanged               | isiobadilika                   |
| undergo                 | pitia                          |
| undiminished            | isiofifia                      |
| uniform                 | inayofanana/sawia              |
| uniform acceleration    | kasi sawia                     |
| uniform circular motion | mwendo wa mzunguko sawia       |
| uniformly               | ufanano                        |
| unit                    | kizio                          |
| units of force          | vizio vya kani                 |
| universe                | ulimwengu                      |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH            | SWAHILI               |
|--------------------|-----------------------|
| unknown            | isiojulikana          |
| unsteady           | yumbayumba            |
| upright            | imara                 |
| upward             | juu                   |
| utensil            | chombo                |
| <b>V</b>           |                       |
| vacuum             | ombwe                 |
| valid              | halali                |
| value              | thamani               |
| vapor              | mvuke                 |
| vapor state        | hali ya mvuke         |
| vaporization       | uvukizaji             |
| vaporize           | fukiza                |
| variable           | tofauti               |
| variation          | utofauti              |
| variety            | tofautitofauti        |
| various            | mbalimbali            |
| vector             | vekta                 |
| vector quantity    | kipimo cha vekta      |
| vector resolution  | mchanganuo wa vekta   |
| vector sum         | jumla ya vekta        |
| vein               | mshipa                |
| velocity           | kasimwelekeo          |
| verification       | uhakiki               |
| vertex             | kipeo                 |
| vertically         | kwa wima              |
| vibrate            | tetemeka              |
| vibrational motion | mwendo wa mtetemo     |
| violate            | kiuka                 |
| virtual            | -a mtandaoni          |
| virtual image      | twasira mtandao       |
| viscous            | ya kunata             |
| viscous liquid     | kioevu kinatacho      |
| visible            | inayoonekana          |
| visualize          | waza                  |
| vocal              | -a sauti              |
| vocal cord         | nyuzi za sauti        |
| volatile           | fukivu                |
| volatile liquid    | kioevu fukivu         |
| volt               | volti                 |
| voltaic            | -a volti              |
| voltaic cell       | seli ya volti         |
| voltage            | volteji               |
| voltage divider    | kigawanyo cha volteji |
| voltage drop       | mshuko wa volteji     |
| voltmeter          | voltimita             |

PHYSICS GLOSSARY – HIGH SCHOOL LEVEL

| ENGLISH         | SWAHILI          |
|-----------------|------------------|
| volume          | ujazo            |
| vowel           | vokali           |
| <b>W</b>        |                  |
| water pollution | uchafuzi wa maji |
| wave speed      | kasi ya wimbi    |
| weak force      | kani dhaifu      |
| <b>X Y Z</b>    |                  |
| X-rays          | eksirei          |
| X-value         | thamani ya X     |
| Xerox           | kinakilishi      |
| Y-value         | thamani ya Y     |
| yellow          | manjano          |
| zinc            | zinki            |