

**STANDARD 4 ULIMI, SAYANSI NDI LUSO
SUMMARY NOTES**

COMPILED BY BLESSINGS NKHOMA

MUTU 1: KAFUKUFUKU WA SAYANSI

Kafukufuku wa sayansi

-Kafukufuku wa sayansi ndi njira yodziwira ndi kuthetsa mavuto osiyanasiyana opezeka mdera lathu.

Ndondomeko yoyenera kutsata pochita kafukufuku wa sayansi

- i) Kudziwa vuto lofunika kufufuza
 - ii) Kukhala ndi chithunzithunzi cha zotsatira za kafukufuku.
 - iii) Kukonzekera kafukufuku.
- IV) Kutanthauzira zotsatira za kafukufuku.
- v) Kuchita ndamanga.

MUTU 2: MATENDA OMWE AMAGWIRA ANTHU KAWIRIKAWIRI M'DERA LANU

Matenda omwe amagwira anthu kawirikawiri

- Mphere
 - Malungo
 - Edzi
 - Kolera
 - Kutsegula m'mimba
- a) **Mphere**

-Imayambitsidwa ndi kachilombo kamene kamaboola thupi ndikuikirapo mazira ake.

Mmene imafalira

-Kukhudzana kwa matupi.

-Kusamba m'madzi osayenda amene odwala matendawa anakasambapo.

-Kubwerekana ma tawelo, masiponji, zovala, nsapato, sokosi ndi zofunda.

Zizindikiro

-Timatuza toyabwa timatuluka mkatikati mwa zala zakumanja ndi miyendo ndi m'matako.

-Kumva kuyabwa komanso kupweteka m'malo mogwidwa matendawa.

-Kusintha kwa mtundu wa khungu la malo ogwidwawo.

Mmene tingapewere

-Tipewe kukhudzana ndi munthu amene ali ndi matendawa.

-Tipewe kusamba m'madzi limodzi ndi munthu amene ali ndi matendawa.

-Ukhondo wa pathupi monga kuchapa zovala komanso kusamba madzi oyera.

b) [Malungo](#)

-Amayambitsidwa ndi tizilombo toswoneka ndi maso totchedwa Plasmodia.

Mmene imafalira

-Imafalitsidwa ndi udzudzu umene umati ukaluma munthu amene ali ndi malungo, umatenga kachilombo moyambitsa malungo ndikukapatsira wina wopanda malungo ngati udzudzuwo wamuluma. Munthuyo amayamba kudwala malungo pakadutsa masabata awiri chimulumireni udzudzuwo.

Zizindikiro

-Kuphwanya kwa mutu

-Kumva kuzizidwa

-Kunjenjemera

- Kutuluka thukuta
- Kusowa kwa chilakolako cha chakudya.
- Kusanza
- Kutsegula mmimba.
- Kuphwanya kwa mthupi

Mmene tingapewere

- Kukwirira malo onse amene pali madzi osayenda pamene pamaikira udzudzu.
- Kutchetcha udzu wozungulira malo athu pofuna kuononga malo amene udzudzu umabisala.
- Kupopera mankhwala opha udzudzu.
- Kugona mu neti yonyikidwa mu mankhwala opha udzudzu usiku uliwonse chaka chonse.

c) **Edzi**

- Imayambitsidwa ndi kachilombo kotchedwa HIV.

Mmene imafalira

- Kugonana mosadziteteza ndi munthu amene ali ndi matendawa.
- Mayi kupatsira mwana matendawa nthawi yobereka.
- Nthawi yopatsana magazi ngati sanayezedwe bwino.

Zizindikiro

- Zotuluka za pakhungu.
- Thukuta lotuluka usiku.
- Kuphwanya kwa thupi.
- Zokandakanda.
- Zotupa za pakhosи ndi kukhwapa.
- Zilonda za mkamwa.

- Kuchepa kwa mphamvu mthupi.
- Kutsegula mmimba kuitirira mwezi.

Mmene tingapewere

- Kudziletsa ku kugonana.
- Kukhala okhulupirika kwa okondedwa mmodzi yekhayo wogonana naye.
- Osabwerekana zipangizo zakuthwa monga masingano, phinifolo, lezala komanso miswachi.
- Kupewa kutenga mimba pamene muli ndi matenda a edzi.

d) Matenda otsegula m'mimba

- Amayambitsidwa ndi tizilombo tosaoneka ndi maso monga bacteria komanso utchisi wa anthu monga anthu amene alibe chimbudzi amene amakadzithandizira kutchire.

Mmene imafalira

- Ntchentche zimatha kufalitsa matendawa.
- Kumwa madzi osatetezeka.
- Kudya chakudya osasamba m'manja.
- Kudya zipatso ndi ndiwo zosatsuka.

Zizindikiro

- Kutsegula mmimba.
- Kusanza.
- Kutaya madzi ochuluka.

Mmene tingapewere

- Kuvindikira chakudya kuti pasatele ntchentche.
- Kuphitsa madzi kapena kuikamo mankhwala opha tizilombo toyambitsa matenda.

- Kusamba mmanja tisanayambe kudya.
- Kutsuka ndiwo zamasamba komanso zipatso tisanayambe kudya.
- Kusamba mmanja tikachoka kuchimbudzi.

e) [Chifuwa chachikulu](#)

-Nthendayi imayambitsidwa ndi tizilombo tosaoneka ndi maso totchedwa
bacteria

Zizindikiro

- Kuchepa kwa mphamvu mthupi.
- Kumva kutopa
- Kusakhala ndi chilakolako cha chakudya.
- Kumva kuzizidwa.
- Thukuta lotuluka usiku.
- Kutsokomola magazi.

Mmene tingapewere

- Kugona mu nyumba yoti mpweya umalowamo mosavuta.
- Kumwa mkaka wophitsidwa.
- Osadya nyama yosavomerezeka.

MUTU 3: MBEWU ZOMWE TIMADYA

Mbewu zomwe timadya

- a) Chimanga, mapira, mawere, mpunga ndi tirigu.
- b) [Za mgulu la nyemba](#): Nyemba, mtedza, nzama, soya, nandolo, khobwe/nseula, nsawawa, tchana, sosola/mphodza, chitowe, kabaifa, kamumpanda ndi kalongonda.

- c) **Ndiwo zamasamba:** Kabichi, tomato, anyezi, galiki, lepu, kaloti, therere, katate, denje, bonongwe, bowa, mabilinganya, nkhaka, vwende, tsabola, chigwada, fwifwi, kamganje, mnkhwani, mwamunaligone, chisoso, luni, khwanya, mtambe, cham'mwamba/nsangowa, limanda, kholowa ndi chikande/chinaka.
- d) **Mbewu za mizu:** Mbatata, mbatatesi ndi chinangwa.
- e) **Zipatso:** Malalanje, mandimu, nthochi, epulo, mapeyala, mango, mapapaya, magwafa, mapichesi, masuku, masau, malambe, bwemba, mpsipsa, katope, matowo, nkuyu, mateme/maye, mpoza, mphinjipinji ndi maula.
- f) **Mbewu zopangira mafuta ophikira:** Mpendedzuwa, sesame (chitowe), soya ndi mtedza.

Malo amene mbewu zomwe timadya zimalimidwa

MBEWU	MALO OMWE MBEWUZI ZIMALIMIDWA
Chimanga	Maboma onse amu Malawi
Mpunga	Zomba, Nkhotakota, Phalombe, Mangochi, Karonga, NkhataBay, Salima, Chikwawa, Nsanje ndi Chikwawa.
Mawere	Nsanje, Chikwawa, Chigwa cha Phalombe, Chitipa komanso malo ena olandira mvula yochepa.
Mapira	Chikwawa, Nsanje, Chitipa, Karonga ndi Mzimba.
Tiligu	Neno, Dedza, Mchinji, Mwanza, Ntchisi, Rumphi ndi Chitipa.
Nyemba	Maboma onse amu Malawi.
Mtedza	Maboma onse amu Malawi.
Soya	Lilongwe, Dedza, Kasungu, Mchinji, Mzimba, Dowa, Zomba, Chiradzulu, Machinga, Mangochi ndi Ntchisi.
Nandolo	Pafupifupi Maboma onse amu Malawi muno
Khobwe/nseula	Chidikha cha Bwanje, Chigwa cha Phalombe, Malo a mmbali mwa Nyanja komanso Chigwa cha Shire.
Chinangwa	Nkhotakota, NkhataBay, Rumphi, Karonga, Lilongwe, Mzimba, Kasungu, Chitipa, Dedza, Dowa, Machinga, Mulanje ndi Zomba.
Mbatata	Maboma onse.
Zipatso zamakoko	Mwanza, Neno, Ntchisi, Ntcheu, NkhataBay ndi Thyolo.

Mbatatesi	Neno, Dedza, Ntchisi, Rumphi, Chitipa (Phiri la Misuku), Ntcheu ndi Mchinji.
Masuku	Lilongwe, Mzimba, Machinga, Rumphi, Mchinji, Dedza ndi Ntcheu.
Ndiwo zamasamba	Maboma onse amu Malawi.
Nthochi, Mango, Mapapaya ndi Magwafa	Maboma onse amu Malawi.
Malambe ndi bwemba	Chikwawa, Nsanje, Salima, Nkhotakota, Karonga, Mangochi, Balaka ndi Machinga.
Mapeyala	Mulanje, Thyolo, Zomba, NkhataBay, Chitipa ndi Karonga.
Zinanazi	Mulanje, Thyolo, NkhataBay, Rumphi (Phoka) ndi Karonga (Songwe).
Nzimbe	Maboma onse amu Malawi.

Kugawa mbewu zomwe timadya m'magulu

GAWO LODYEDWA	MBEWU ZOMWE TIMADYA
Masamba	Kabichi, lepu, kamganje, bonongwe, chisoso, luni ndi therere
Mizu	Mbatata, anyezi, chinangwa ndi galiki.
Zipatso	Mabilinganya, malalanje, bwemba, malambe, mapapaya, masau, nthochi ndi masuku
Maluwa	Maungu
Njele zopangira mafuta ophikira	Mpendadzuwa, sesame, mtedza ndi nyungu.
Thunthu	Nzimbe, misale ndi misinde.

MUTU 4: MITUNDU YA ZAKUDYA

Kumene kumachokera zakudya

-Zomera

-Nyama

Zakudya zochokera ku zomera

ZOLIMIDWA	ZAMTCHIRE
Chimanga, magwafa, mapapaya, mtedza, mapira, mpunga, chinangwa ndi mbatata.	Nthudza, ntonongoli, mpsimpsa, mateme/maye, masau, luni, bonongwe, chisoso, zipwete, denje ndi zikande.

Zakudya zochokera ku nyama

-Nyama

-Mkaka

-Mazira

-Uchi

MUTU 5: KUFUNIKA KOLIMA MBEWU NDI KUWETA NYAMA

Ubwino olima mbewu ndi kuweta nyama zosiyanasiyana kusukulu ndi kunyumba

-Chakudya chimakhala chokwanira.

-Anthu amakhala ndi ndalamu chaka chonse.

-Anthu amadya chakudya cha thanzi.

-Zinthu zina zofunikira pokozera zinthu zina m'mafakitale zimapezeka mosavuta monga mtedza opangira mafuta ophikira.

-Manyuwa amapezeka mosavuta.

MUTU 6: ZIWETO ZOPEZEKA MDERA LATHU

Ziweto zopezeka mdera

- Nkhuku
- Nkhosa
- Mbuzi
- Nkhunda
- Ng'ombe
- Nkhumba
- Akalulu
- Nkhanga

Kufunika kwa ziweto

- Zimatipatsa zakudya
- Zimatipatsa ndalama.
- Nyama zina monga ng'ombe zimatithandiza kulima kumunda.

Kufunika kwa zinthu zina zochokera ku ziweto

ZINTHU ZOCHOKERA KU ZIWETO	NTCHITO YAKE
Nyama	Kudya, kupangira masoseji ndi nyama yogaya komanso kugulitsa.
Mazira	Kudya, kugulitsa komanso kuphikira.
Mkaka	Kudya, kugulitsa, kuphikira komanso kupangira yogati.
Zitosi	Manyuwa komanso kugulitsa.
Zikopa	Kupangira mphasa, kukatsira (kukonzera) ng'oma, kugwiritsa ntchito ku zokhomakhoma za matabwa,

	zovala pa magule, kupangira nsapato komanso kupangira zikwama.
Phula	Kupangira makandulo komanso polishi.
Nthenga	Kukongoletsera zisoti komanso kuika m'mapilo.

MUTU 7: LUSO LAMAKOLO MDERA LATHU

Zitsanzo za luso lamakolo

- Lichero
- Sefa
- Mphelo
- Chipande
- Mono

Mmene luso lamakolo limagwirira ntchito

LUSO LAMAKOLO	MOMWE LIMAGWIRIRA NTCHITO
Lichero	-Timapetera pofuna kuchotsa zinyalala kuti tikhale ndi mbewu yofunikira yekhayo. Mwachitsanzo kuchotsa zinyalala kuti tikhale ndi chimanga chokha.
Sefa	Timagwedeza sefa pofuna kuti tinthu ting'onoting'ono tidutse m'mabowo asefa ndi kusiya tinthu tikulutikulu mkatи mwa sefa momo.
Mphero	Chimanga chimaikidwa pakati pa miyala iwiri, mwala waukulu pansi ndi waung'ono pamwamba. Mwala waung'onowu umayendetsetsa pamwamba pa chimangacho zimene zimapangitsa chimangacho kukhala ufa.
Mthiko	Timatakasira pomwe taviika ufa mmadzi pofuna kuti tiphike zinthu zopanda mibulu.

Mono	Nsomba zimalowamo kudzera pa dzenje laling'ono la kukamwa kwake ndipo nsombazo zikalowa zimalephera kutulukanso.
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MUTU 8: LUSO LAMAKONO

Zitsanzo za luso lamakono

- Chigayo
- Lamyia
- Wilibala
- Njinga
- Mjigo
- Kompyuta
- Wailesi
- Kanema

Ntchito za luso lamakono

LUSO LAMAKONO	NTCHITO YAKE
Makina osokera	Kusokera zovala ndi zigamba
Wilibala	Kunyamulira katundu
Makina ometera	Kumetera tsitsi.
Kompyuta	Kusungira zinthu, kulembera zinthu zofunika komanso kulumikizana.
Foni	Kulumikizana.
Feteleza	Kuonjezera chonde mnthaka.
Wailesi	Kusangalatса, kudziwitsa ndi kuphunzitsa.

Mmene luso lamakono limagwirira ntchito

LUSO LAMAKONO	MMENE LIMAGWIRIRA NTCHITO
Wilibala	Pokankha wilibala yomwe muli katundu.
Njinga	Popalasa maphedulo.
Wailesi	Mphepo ya wailesi kuchokera ku likulu la wailesiyo limadutsa mu mphepo nkukafika mu wailesi.

MUTU 9: UBWNO NDI KUYIPA KWA LUSO LOSIYANASIYANA

Kufunika ndi kuyipa kwa luso lamakolo

UBWINO	KUYIPA
Zimapezeka motchipa.	Zimatulutsa ntchito yosalongosoka.
Ndizotetezeka pogwiritsa ntchito	Zimachedwa
Zimapezeka mosavuta	Zimalephera kugwira ntchito yochuluka.
Ndizosavuta kugwiritsa ntchito.	Zimakondera mbali imodzi mwachitsanzo amuna
Ndizotchipa kukonzetsa zikaonongeka.	Ndizosalimba
Sizifuna ukadaulo wakakonzedwe	Zimaononga nthawi

Kufunika ndi kuyipa kwa luso lamakono

KUFUNIKA	KUYIPA
Zimatulutsa ntchito yabwino ndi yokongola.	Ndizodula
Zimatenga nthawi yochepa pogwira ntchito.	Ndizosagwirizana ndi chilengedwe.
Zikhoza kugwira ntchito yochuluka.	Kukonzetsa kumafuna ndalamza ochuluka.
Anthu ogwira ntchito amachepepetsedwa.	Anthu amachotsedwa ntchito.

MUTU 10: NTCHITO ZOPEZERA CHUMA MDERA LATHU

Ntchito zopezera ndalama

- Kulima mbewu zoti zikagulitsidwe monga thonje, fodya, nzimbe ndi mpunga.
- Kulima ndiwo zamasamba monga tomato, kabichi, anyezi mpiru ndi lepu.
- Kugaya mbewu ndi ndiwo zamasamba ndi kupanga zinthu zina monga sopo ndi mafuta ophikira.
- Kukhoma zitini.
- Kuweta nyama monga nkhuku, mbuzi, nkhosa ndi ng'ombe.
- Kugaya mchigayo.
- Kugula ndi kugulitsa mbewu zakumunda.
- Kutsegula galaji kapena malo owotcherera zinthu.

Kufunika kwa ntchito zopezera chuma m'dera lathu

NTCHITO	KUFUNIKA KWAKE
Kulima mbewu ndi kuweta ziweto.	Zimatipatsa ndalama, chakudya, timakhala anthu odzidalira patokha komanso anthu amakhala ogwirizana.
Kulima ndiwo zamasamba	Zimatipatsa ndalama komanso chakudya chathanzi.
Kugaya zakudya mmafakitale	Zimaonjezera mtengo wogulitsira pa msika, zimapangitsa chakudya chisungike kwa nthawi yitali komanso Zimachepetsa kuchuluka kwa katundu cuti anyamulidwe mosavuta.
Kuphika masikono ndi mandazi	Zimatipatsa ndalama komanso chakudya.

Kugaya mchigayo	Zimatipatsa ndalama, zimapereka danga locheza ndi anthu ochuluka koma zimasunga nthawi yochitira zinthu zina.
Ntchito za manja	Zimatipatsa ndalama
Kugula komanso kugulitsa mbewu zosiyanasiyana	Zimatipatsa chakudya komanso ndalama.

MUTU 11: KUGULA NDI KUGULITSA ZINTHU M'DERA LATHU

Zinthu zimene tingagule ndi kugulitsa m'dera lathu

- Mbewu monga chimanga, nzimbe, ndiwo zamasamba, zipatso, chinangwa ndi mtedza.
- Zinthu zochokera ku ziweto monga nyama, mazira, mkaka ndi zikumba.
- Zakudya zokonzedwanso monga mikate, thobwa, zitumbuwa, zikondamoyo ndi mandazi.
- Zinthu zina monga nkhuni, makala, mankhwala, mbaula, zitseko ndi zovala.

MUTU 12: MITUNDU YA MISIKA

Ntchito zochitika pamsika

- Kugula
- Kugulitsa
- Kupakira katundu

-Kuika mitengo pa katundu.

-Kutsatsa malonda

Mitundu ya misika

a) **Msika**

-Ndi malo amene anthu amakagula ndikugulitsako zinthu.

-Malowa amakhala ndi malamulo oyendetsera malowa.

-Malonda amatha kuchitika kunja komanso mkat i mwa nyumba.

-Katundu amagulidwa pamtengo wonenerera.

b) **Sitolo**

-Sitolo ndi nyumba kapena mbali ya nyumba yomwe katundu amagulitsidwamo.

Kufunika kwa misika

-Imathandiza anthu kugulitsa zinthu zaho.

-Imathandiza anthu kuti agule zofunika zaho.

-Imathandiza anthu kukumana ndi kucheza momasuka.

-Imathandiza anthu kugawana nkhani.

Mavuto amene misika imakumana nawo

-Kusoweka kwa ukhondo.

-Kusoweka kwa malo osungako katundu.

-Kuyala katundu mmbali mwa msewu zimene zimaikidwa pa chiopsezo cha kuwonongeka.

-Kuyatsidwa kwa moto pafupipafupi.

-Kusowekera kwa madzi aukhondo.

Mmene misika ingatukukire

-Kuikamo zinthu zotayamo zinyalala mmisika.

- Kupereka madzi aukhondo mmisika.
- Kugwiritsa ntchito zinthu zina za pamsika moyenera monga zimbudzi.
- Kugwiritsidwanso ntchito zinthu zogwiritsidwa kale ntchito.
- Kupeza malo osungiramo katundu abwino.
- Kuyala katundu pamalo oyenera.

MUTU 13: ZOMWE TINGACHITE PAMENE ZINTHU ZASINTHA M'DERA LATHU

Kusintha komwe kumachitika m'dera

- Tsiku ndi usiku.
- Nyengo
- Kapezedwe ka chakudya
- Kachulukidwe ka anthu

Zomwe zimayambitsa kusintha kumachitika m'dera

- Kuwonongeka kwa chilengedwe.
- Kuchepa kwa mvula.
- Chilala.
- Nkhondo

Njira zokonzekera kusintha kumene kumachitika m'dera

- Kusunga zinthu pamalo abwino.
- Kuika mankhwala oteteza mbewu.
- Kuthirira.
- Kubzala mbewu zopilira ku matenda.

- Kulera
- Kupewa mikangano.
- Kubzala mitengo.
- Kupewa kudula mitengo mwachisawawa.

MUTU 14: ZOMWE TINGACHITE PAMENE NYENGO YASINTHA

Mavuto omwe amabwera chifukwa cha kusintha kwa nyengo

- Chilala
- Kukokoloka kwa nthaka.
- Kulephera kupita kusukulu chifukwa cha mvula.
- Kuzizira
- Kutentha.

Njira zochepetsera mavuto omwe amadza chifukwa cha kusintha kwa nyengo

- Kuwachenjeza anthu mwachangu za mmene nyengo ikhalire.
- Kubzala mitengo.
- Kugwiritsa ntchito zinthu zina zothandizira nyengo yamvula monga ambulela.
- Kugwiritsa ntchito chokupizira mphepo chamagetsi.
- Kugwiritsa ntchito chokupizira mphepo chokonza tokha.
- Kugwiritsa ntchito keni.
- Kugwiritsa ntchito thiredo pampu.

Ubwino ndi kuipa kwa njira zochepetsera mavuto obwera chifukwa cha kusintha kwa nyengo

a) Kugwiritsa ntchito chokupizira mphepo chamagetsi

Ubwino

-Munthu amamva kuzizira bwino ngakhale kukutentha.

Kuipa

-Zimagwira ntchito malo okhawo amene kuli magetsi.

-Ndichodula.

b) Kubzala mitengo

Ubwino

-Kuteteza ku mphepo yowononga.

-Kuteteza dothi kuti lisakokoloke.

Kuipa

-Imatenga nthawi kuti ikule.

c) Kugwiritsa ntchito keni

Ubwino

-Siifuna mphamvu zambiri pogwiritsa ntchito.

-Siyodula.

Kuipa

-Imagwira ntchito pamalo ochepta.

d) Kugwiritsa ntchito ambulera

Ubwino

-Imathandiza kupewa kunyowa ku mvula.

Kuipa

-Imathandiza munthu mvula ikakhala yochepa chabe.

-Siicedwa kuwonongeka ikakhala mvula ya mphepo.

e) Kugwiritsa ntchito thiredo pampu.

Ubwino

-Imagwira ntchito pamalo aakulu.

Kuipa

-Imafuna mphamvu zochuluka pogwiritsa ntchito.

-Ndiyodula.

MABUKU OMWE AGWIRITSIDWA NTCHITO

- Buku la Mphunzitsi La Ulimi Sayansi ndi Luso la Sitandade 4
- Buku La Ophunzira La Ulimi Sayansi ndi Luso La Sitandade 4

ULEMU NDI MATAMANDO ZIPITE KWA MULUNGU!!!!!!!!!