

**Luan zag ob**

# **HOM PHAJ KAWM YEEJ UA NUM!**

Tsom kev fav n fawm fug kawm rua ib yaam kawm zuj zug

NPUAB KOOM TXOOS TUG KOM TSWJ QHA NTAUV RUA XEEV TUG QAUV

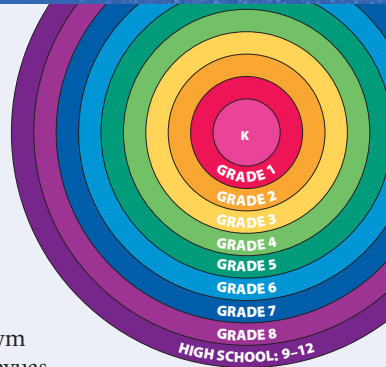


## **Theem Sab**



**Milwaukee Public Schools**

# HOM PHAJ KAWM HUV MPS



Tsoom nam txiv/Cov saib miv nyuas:

Koj tug miv nyuas taab tom pib them sab. Nwg yuav kawm yaam twg? Nyob them le caag koj xaav kuas koj tug miv nyuas kawm? Koj yuav paub tau le caag tas yaam koj yug miv nyuas kawm huv chaav kawm puas yog yaam tsim nyog nwg kawm?

Phoo nyuas ntawv nuav teb tau koj cov lug nug. Nwg yog tsev qha ntawv Milwaukee Lub hom phaj Kawm rua them koj tug miv nyuas kawm. Hom phaj kawm qha yaam koj tug miv nyuas yuav kawm huv cuaj yaam: nyeem, Kev kawm English, leb, science, social studies, suab seev, dlha yeeb yaam, kheeb hab kev nraaj.

Teeb Hom Phaj rua tej yaam kawm hab tej qeb npaav tau tas cov xib fwb yuav qha miv nyuas kuas txawj tuab yaam hab tuab lub tswv yim raws qeb kuas dlos kev luj hlub. Kev teeb cov hom phaj nuav, peb ca sab tas cov miv nyuas yuav txaus sab heev rua cov kev kawm nyuaj nuav. Huv cov tsev qha ntawv hab ib lub rua ib lub, peb npaav tau tas yuav tsi muaj ib tug miv nyuas twg nplaam lub ncauj ke kawm ib yaam tseem ceeb vim tas lub Hom Phaj Kawm txhawb kev qha hab kawm xim yeem lug.

Ntxiv ntawd, Lub Hom Phaj kawm npaav tau tas miv nyuas yuav kawm yaam puab yuav tsum kawm es ua rua puab tav qeb 4 lug ntawm kev ntsuag puab kev ua tau zoo kws muaj thaws xyoo. Cov kev saib tsi tu ncuav nuav yuav qha tau xib fwb txug cov miv nyuas kev txawj hab kev xaav kws yuav tau ua taag ua thab thaus cov miv nyuas paub taab zuj zug. Tug xib yuav paab tau miv nyuas ua ntej nwg poob qaab dleb.

Thov khaws phoo ntawv nuav tuab zoo hab saib tsi tseg thaws plawg xyoo. Pev lub hom phaj kawm rua koj tug miv nyuas cov num coj lug tsev saib puas dlhos. Coj phoo ntawv nuav moog rua huv rooj saab laaj nam txiv/Xib fwb es siv nwg lug ua chaw pib sis thaam txug koj tug miv nyuas kev kawm. Tug xib fwb yuav qha tau koj, los loov tej yaam pev txiv kws ca sab tas koj miv nyuas yuav tau.

Milwaukee Partnership Academy, ib paab neeg txawj ntse huv Milwaukee hab lwm cov thawj coj huv zog kws txaus sab txhawb kev kawm, tau cov lug yuav paab teg num nuav. Ua ke nrug koj, peb paub tseeb tas peb yuav ncaav tau lub hom phaj--kev kawm tav rua txhua tug miv nyuas.

Foom ib xyoo kawm zoo rua koj hab tug miv nyuas

William G. Andrekopoulos  
Superintendent of Schools

Cov kawm yuav tsum kawm taag ib unit huv them sab. Vim nwg yog ib haaj kev kawm, kev kawm nraaj khaav tau kev to taub txug tej yaam kws yug pum ntawm qhov muag, paub txug tas yog dlaab tsi ua rua yaam nraaj tau ntawd zoo nkauj, hab tseem dlaws tau teeb meem. Cov kawm kawm txug keeb kawm nraaj ib them zuj zug lug hab kuas paub cov tuab neeg nraaj kws nto npe. Cov kawm yuav:

- To taub txug keeb kwm tsim tej kev nraaj tsi sis thooj; pev le, kev yeeg dluab kws yog ib feem ntawm nraaj. Dlhos yaam thaus u rua paub cov num.
- Phim ib tug tuab neeg nraaj hab nwg cov num rua ib lub caij los ib yaam nraaj.
- Qha txug kev to taub ntawm kev tsaa ib lub plhaub, xis le lub cev, yaam zaas siv rua ib dlaim dluab, hab ib phaab ntsaa los ib phaab dluab.
- Qha txug kev to taub ntawm lub tswv yim tsaa plhaub, xis le siv yaam zaas kaaj hab tsaus kuas pum meej.
- Qha txug kev paub puab aav thaus siv aav nplaum hab luam kuas ci.
- To taub miv ntsiv txug lub tswv yim laag luam, xis le yaam khoom twg yuav muag tau ntau los yog paab muag cov khoom.
- Paub siv technology lug tawm tswv yim hab qha kev mob sab. Qhov nuav los loov kev siv computer graphics programs, video recorders, hab digital cameras.
- Qha txug kev txawj siv tej khoom nraaj.
- Tsaus sab txug kev tseem ceeb ntawm kev nraaj nrug kev tsom saib tuab neeg kev nyam los tsi nyam thaus puab saib tej yaam khoom.
- Saib yaam khoom tuab zoo hab thaam txug qhov yug ua.
- Tsaus sab txug kev tseem ceeb ntawm kev nraaj thaus u hab ntawm lwm haiv.



Cov kawm yuav tsum kawm taag pluab units English/kawm lug ha tav.

**QEB 9**

Kev kawm lug huv qeb 9 tsum rua kev txhim khu kev txawj sau ntawv hab has lug. Cov kawm sau tej zaaj lug kuas ntev. Cov kawm yuav

- Siv tswv yim lug khu qhov kev sau kuas dlhos cov nyeem lub hom phaj.
- Siv kev sau ntawv lug teb tej lug nug kws tsi tseeb hab tseeb.
- Cim qhov yuam kev ntawm kev siv lu lug, grammar, sau yog, hab lub suab.
- Npaaj sawv moog has lug tag hab xyum has. Koom kev sis thaam kws muaj lug nug hab teb.
- Cim hab tswj cov lug kws paab tsi tau tug has lug los nwg cov tswv yim thaus sis thaam kuas txaus sab txhawb nqaa hab tsi pub muaj lug tuaj sab.
- Leeg paub hab siv ntau hom kev has lug hab xaiv lu lug thaus has lug hab sau ntawv.
- Leeg paub hab qha txug kev has lug ntau hom raws le tsaam thawj, xis le has rua num tswv los huv tuab neeg kev sis cuag.
- Siv technology lug tshawb xuv, ces sau hab teem qauv rua dlaim ntawv.
- Leeg paub hab qha txug kev has lug kuas raws le lub tsaam thawj naj nub.
- Npaaj, ua, hab sis cev lug txug kev tshawb nrhav. Qha saib muab cov xuv twg lug hab teeb kev sau dlaim ntawv kuas yog.
- Teb lwm tug cov lug kuas yog le lu lug nug, tawm tswv yim los thuj.
- Npaaj hab tsim khoom tshaaj xu, xis le kev laag luam, xuv roj maab, los website.
- Soj ntsuam lub tswv yim ntawm tej khoom tshaaj xu, xis le ntawv xuv xim, khaav khoom, hab tshaaj xuv xim.
- Phua lub ntsab, khu, hab sau cov num xaa moo kuas yog kom tau num.

**QEB 10**

Nyob qeb 10, cov kawm siv suab hab hom sau. Paub siv computer lug tshawb hab thaam yaam puab yaam ua tau. Cov kawm yuav:

- Sau ntau hom suab hab ntau hom lug kuas tau num zoo rua kev sis txuas lug rua txhua tug raws tej hom phaj ntau yaam; pev le, lug qha rua ntau haiv, paaj huam, tej zaaj lug.
- Siv kev sau lug tsim hab luj tsaab peev xim sau.
- Npaaj, teeb, hab thaam txug qhov kev tshawb nrhav.
- Cim hab cais lub tswv yim ib tug has lug lug yaum lwm tug, has lug meej, lub suab, kev sau cov kaab ntawv.
- Koom kev sis thaam kws ntxiv tswv yim hab tawm lug nug lawv le lub nam tswv yim.
- Paub hab luj kev siv hom lug rua kev xaa xuv, qha lub ntsab, yaum, hab muab kev txaus sab.
- Paub txug, dlhos, hab thaam kev siv lug English ntawm ib tug sau ntawv los tug has lug lug has txug kev tseem ceeb ntawm nwg tug kheej, cwj pwm, hab nwg lub zeem muag.
- Npaaj, ua, hab tshawb es siv tug qauv yog, xis le MLA los APA.
- Leeg paub, hab qha txug qhov puab hab lwm tug yuam kev.
- Siv computers lug ua yaam khoom npaaj hab txuas lug.
- Cim, cais hab qha hauv paug tshaaj xu kev txawj ntxag.
- Tsom xaam saib tuab neeg pum le caag txug qee yaam. Txav saib cov kev tshaaj xu tau num le caag.
- Tsim txheej txheem lug luj saib cov kev tshaaj xu tau num le caag.



**QEB 11 & 12**

Cov kawm nyob qeb 11 hab 12 txawj sau tej ntawv nyuaj hab siv puab tej kev txawj nuav lug sau ntau yaam ntawv. Puab ua tej yaam num rua kev tshaaj xu kws muab ob yaam kev sis cev lug tso ua ke. Cov kawm yuav:

- Siv puab tej kev txawj sau lug sau tej yaam puab xaav pib.
- Siv puab qhov kev txawj has lug.
- Cim hab cais keeb kwm, qhov ib txhis muaj, hab siv lug English hab phrases.
- Pev hab cais kev siv tej khoom cim hab luj cov lug huv lwm yaam kev cai; pev le kev siv yug lub cev ntaus cim has lug kws ntau haiv neeg yeej ua le ntawd.
- Siv tej kev txawj siv computer lug khaws tej xuv, teeb chaw, cais, hab cev tej lug muaj.
- Tsim ib txuj kev lug luj tej lug tshaaj tawm.
- Tsim hab khaav tej khoom tshaaj xu, xis le ntawv tshaaj xuv los kev khaav txug ntau yaam rua ntau pawg tuab neeg.
- Luj cov lug, cov nplooj ntawv, qhov zoo, tav le caag, hab yaam khoom ua tau zoo le caag hab yaam num puas raug ntsej raug muag.
- Siv kev tshawb nrhav lug npaaj, ua, thaam txug kev tshawb txug tej yaam, los loov ntawv ntsig txug zaaj lug tseeb hab cuav.
- Sau zaaj pem kuas ntev zog. Phua lub tswv yim ntaub ntawv hab sau nwg cov lug kws sau txug kev phua ntsab kev ntaub ntawv.
- Khu hab thuaj kev sau meej pem hab tau num.
- Luj cov lug xaa moo saib puas yog, puas raws cai hab puas tseem ceeb.
- Txu hab luj cov lug hab tswv yim kws sis thaam.
- Luj qhov zoo ntawm cov khoom tshaaj moo and kev xaa raws lub kab khw kws yeej npaaj coj moog nkaag.

Cov kawm yuav tsum kawm taag .5 unit huv kev noj qaab haus huv. Ua ib feem ntawm kev qha tawm dlaag zug rua qeb 9 txug 12, kev kawm txug kev noj qaab haus huv tsom rua yug tug kheej lub kheeb, los loov xaiv qhov zoo, mam kev coj cwj pwm tsi zoo, hab siv tej khoom muaj txawm peem huv zog. Cov kawm yuav:

**QEB 9**

- Pev saib kev mob hlwb hab nyuaj sab tawm tsaam yug lub kheeb le caag.
- Txheeb yaam phem ntawm kev haus luam yeeb hab ua nkauj nraug.
- Leeg paub kev tseem ceeb ntawm lub kheeb zoo hab nwg zoo le caag rua lub neej. Qha saib kev txav txim sab zoo rua khoom noj, kev siv dlaag zug, hab kev moog ntsib kws khu mob tsi tu ncuu paab tau le caag.
- Qha lub peev xim txawj paab. Qha cov khoom siv cov npe.
- Qha kev tswj kev noj qaab haus huv rua lwm haaj kev cai.
- Thaam txug tej xuv txaus ntseeg kws has txug kev noj qaab haus huv hab yog vim le caag ha tseem ceeb yuav tsum paub tas cov xuv ntawd zoo.
- Qha saib kev muab tej khoom pov tseg moog ua yaam tshab zoo npaum twg rua kev noj qaab haus huv.

**QEB 10**

- Has cov koom hum tsaav xwm kws ua num tiv thaiv lub ntuj puag ncig yug. Qha saib puab tiv thaiv sawv dlawg kev noj qaab haus huv le caag.
- Qha kev paub txug tej cai huv federal hab state kws has txug kev noj qaab haus huv, xis le tswj khoom noj, saib fuab cua, hab dlej huv.
- Qha cov kaab mob kas cees (STDs) hab qha saib sis kis le caag. Qha yaam phem ntawm kev muaj miv nyuas, HIV, hab kas cees.
- Leeg paub tas ib tug lub cwj pwm phem ntxhuv sawv dlawg tuab si.
- Thaam txug kev tseem ceeb ntawm kev txav txim sab.
- Qha saib yuav pav txug kev nyuaj sab nua yuav has le caag ha yog.
- Qha saib yuav taw kev le caag rua lwm tug kuas puab xaiv yaam yog.
- Qha qhov tseem ceeb ntawm yaam khoom noj zoo hab kev tawm zug tsi tu ncuu kws yuav coj moog rua lub neej kheeb zoo.

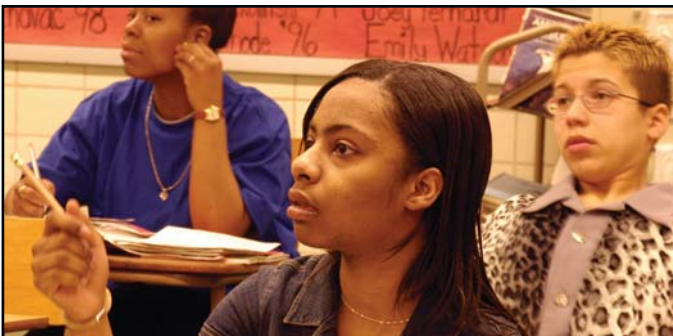
*Txuas ntxiv*

**QEB 11**

- Qha saib yuav txu kev chim sab le caag ha yog.
- Qha txug tej kev kub ntaiv hab yaam phem ntawm kev txav txim sab sis dleev.
- Thaam txug kev tseem ceeb ntawm kev leeg txhum rua yaam yug ua.
- Qha saib kev tshaaj xu yuav tsum yug kev txav txim sab txug kev noj qaab haus huv hab cwj pwm le caag.
- Qha saib vim le caag yuav tsum ceev faaj txug tej khoom kws khaav tas zoo rua kev noj qaab haus huv.
- Ua kag saib yuav sis xaa xuv le caag ha tau num. Qha saib vim le caag kev noj qaab haus huv ha tseem ceeb.
- Paub txug kev sis cob cog ntawm yug tej kev xaiv hab qhov yug xaiv.
- Qha lub neej kheeb zoo, los loov kev noj yaam zoo, tawm zug tsi tu ncuu hab moog tsib kws tshuaj hab kws khu nav tsi tseg.

**QEB 12**

- Qha cov chaw saib kev noj qaab haus huv huv zog, hab qha tas yuav ua caag ha siv tau puab.
- Qha saib HIV, STDs, hab muaj miv nyuas tawm tsaam yug hab lwm tug lub neej peg suab le caag.
- Qha txug tej yaam huv kev npaaj rua kev noj qaab haus huv, hab qha tas yog ua caag ha tseem ceeb tas yuav tsum muaj ib yaam.
- Qha saib yuav siv cov chaws saib kev noj qaab haus huv huv zog le caag, hab vim le caag pej xeem ha yuav tsum tau siv puab.
- Nthua kev lawv kua kws yuav paab tau thaus muaj teeb meem.
- Paub txug tas kev tshaaj xu muaj cuab kaav tsum tuab neeg kev xaav.



Cov kawm theem sab yuav tsum kawm taag ob units xaam phaaj ha le tav. Cov kawm xaiv tau huv ib cov kev kawm kws tsum rua kev xaam phaaj es siv rua tej yaam num nkaus xib thaus puab nce moog rua qe 11 hab 12.

### **NTU NKAAG THEEM 1**

Ntu nkaag theem 1 tsum rua theem xaav txug kev xaav algebra. Cov kawm kawm ntau hom quav algebra kws txuas kev xaam phaaj. Puab siv computers hab calculators, los loov graphing calculators, lug ua twj dlaws teeb meem. Cov kawm yuav:

- Qha hab cais teeb meem ntsig txug yaam qauv ua kaab, los qauv txuam yuaj yaam hloov tsi tseg. Siv graphs, charts, scatter plots, calculators, computers, hab lwm yaam khoom tsim nyog siv lug cais cov teeb meem.
- Tshawb txug kev siv txuam yuaj rua kev xaam phaaj sis npaug muaj nrim, nrim tsi sis npaug, tshooj ob npaug xaam phaaj sis npaug, kev laij xaam phaaj muaj nrim sis npaug, hab plaub tshooj xaam phaaj sis npaug. Dlaws teeb meem txug cov xaam phaaj sis npaug nuav es siv leb, graphs, hab cim.
- Sau hab qha ib cov leb muaj ob yaam hloov. Siv scatter plots hab txuj kaab ua qauv txaav rov qaab lug has lub ntsab. Siv technology lug teeb cov data. Txhais txuj kaab nqeg kws moog tshuam lwm txuj.
- Luj cov lug, cais cov qauv, cim kev sis txuas, hab siv lu lug algebra hab kev xaam phaaj sis npaug lug txhawb. Leeg paub tas kev xaam phaaj ua tau qauv rua tej yaam xwm txheej tag huv nplaj teb.
- Siv cov tables, graphs, algebraic equations, lug phua lub ntsab txug teg num ntawm kev xaam phaaj. Siv lu lug xaam phaaj, tug cim, hab kev siv lub ntsab lug lug qha.
- Siv tug leb tseem lug sis ntxiv, rhu, tshooj, faib hab tsa qhov algebraic expressions kuas qhov kev xaam phaaj moog sis law.
- Tsum xaam kev ntsuag los kwv yees lug ntawm kev siv tug qauv, xis le tug qauv laij paaj. Paub ua tej theem hab tej yaam kuas yog (sis pauv, ua ke, hab rov qaab), hab qauv ntaus cim.
- Tsim hab sim tej yaam lug tsum xaam saib tej xwm txheej nyuaj puas tshwm sim tau hab puas cov nyom lwm yaam.

*Txuas ntxiv*

**NTU NKAAG THEEM 2**

Ntu nkaag theem 2 tsom rua geometry. Cov kawm kawm hab siv cov qauv kws cais tej cev muaj phaab. Puab siv puab cov tswv yim kawm huv geometry lug dlaws teeb meem tshab hab qub. Cov kawm yuav:

- Qha hab cais kev dlaws teeb meem kws txuam yuaj rua tej cev muaj phaab hab sis txuas.
- Has lub ntsab hab siv tej kaab nqeg taug, sis hlaa, sis law, sis txav, sis dleb, hab ib nraab. Siv lub cheeb plaub faab muaj ob phaab lug qha txug tej kev saib cev hab tej num algebra lug qha lub cev hab puab teej tug.
- Qha tug qauv. Tsim hab sim lub tswv yim kws qha tas muaj dlaab tsi tshwm sim rua tug qauv thaus nwg hloov lub cev luj tuaj, txaav chaw, tshwm, los hloov.
- Siv qauv geometry ntsuag ntev, thaaj aav, hab cheeb lug cais kev sis cob cog. Siv qhov khoom tshwm has txug nwg yaam kws yug paub lawd kws ntsig txug plaub faab hab khoob lug ntsuag lub nruab nrog; pev le, lub kauj kheej thaaj chaw hab lub plaub faab txuj kaab huv plawv sis nte.
- Pav, cais, hab tib ib lub cev dlaav hlau, xis le plaub faab hab peb faab, es saib yaam sis thooj ntawm tej phaab, ceg kaum, hab qhov sis luag.
- Siv peb qhov ratios kws yog sine, cosine, hab qhov sis txuas ntug kws ua peb ceg es trigonometry hab Pythagorean theorem lug dlaws teeb meem tseeb tag hab pev txiv huv nplaj teb.
- Siv yaam sis thooj hab txawv ntawm tej lub cev lug nthuav qhov tseeb lug tsaa yaam ntxiv kws qha qhov sis txawv.
- Xaiv hab siv cov khoom yog, xis le twj ntsuag ncaaj hab koov, lug ntsuag.
- Muab qauv geometry lug siv taas yaam yuav ua tau/los yaam sis nte.

*Txuas ntxiv*

## THEEM TXAWJ TSAWV LAWD

Theem txawj tsawv lawd txuam yuaj rua kev txhais graphs, formulas, hab lwm yaam kev siv ua ke nrug kev nthuav tswv yim algebra. Cov kawm yuav:

- Teeb teeb meem kws txuam yuaj rua kev hloov raws siv huv physics, economics, hab lwm yaam.
- Siv yaam quas tag huv nplaj teb, taug lub hauv paug, siv, hab txhais qhov sis txuas ntawm graphs kws siv kaab, zug, hab kev sis tshooj.
- Siv theem nruab nraab, txuj kaab nruab nraab, lug ua qauv has lub ntsab lug. Siv ntau yaam graphs muab tau lug ntawm kev kwv yees los tug qauv tag kws cais tawm lug ntawm txuj kaab nruab nraab, hab qauv; pev le, txuj kaab cim nqe tsev kws cais tug nqe nruab nraab.
- Taug lub hauv paug hab txhais lub cheeb plaub faab kws dlhos rua qhov tsawg tshaaj plawg, ntau tsaaj plawg, sis hlaa, hab ntu sawv taas kev siv quas tag; pev le, taug qhov yaa sab es laim ib lub ball tshoom ntuj.
- Muab qhov teeb meem los kwv yees lug luj qhov kawg.
- Tsim ib cov tables, graphs, cov cim, hab qauv lug ntawm ntau hom linear equations.
- Dlaws teeb meem lug ntawm kev siv yaam cim ua leb algebra hab lwm yaam.
- Siv sines hab cosines hab lwm yaam qauv trigonometry lug dlaws teeb meem.
- Siv cim hab cov cim yog lug taas kev dlaws teeb meem los txu equations.

*Txuas ntxiv*



**THEEM PAUB HEEV LAWD**

Cov kawm theem paub heev nuav lawd yuav xaiv kawm theem xaam phaaj sab xis le pre-calculus hab calculus los tau. Cov kawm yuav:

**HOM A: KEV XAAM PHAAJ TAG HAB QHOV TSEEB**

- Tsom xaam qhov tseeb ntawm kev xaam phaaj, kws yog kev sim ib yaam los yog yaam tav lug ntawm qhov kev sim ntawd.
- Txhais cov graphs kws qha cov data txuam rua ib lub cev, nruab nraab (nruab nraab hab txuj kaab nruab nraab), yaam zoo ib yaam, hab ntu kem.
- Qha thoog aav nyob tseb rua ub nua, cov nyob ib pawg, cov nyob sis law, hab cov aav sis luag. Txheeb qauv hab kev sis cob cog.
- Sim nyob ib caag hab sis nruab ntawm cov tables. Txais saib cov sis xis hab yuav laug zoo sis xis nrug dleb le caag.
- Siv ib pawg pej xeem, taug puab qub qaab lug tsom xaam saib kev coob hab tsawg txawv le caag; pev le, qha txug kev txawv txaav ntawm ib paab muas lwj txug puab kev nyob dlhau lub caij ntuj no. Nrhav ib txuj kev lug sim kev luj hlub ntawm paab tsaj nuav thaus lub hauv paug lug.

**HOM B: PRE-CALCULUS**

- Qha txug kev coob hab caaj ceg. Txhais lub chaw hab yaam sawv kev rua caaj ceg ntawd thaus muaj ntxiv hab coob tuaj.
- Qha txug hab txhais tug cwj pwm ntawm ib txuj kaab.
- Taug qaab hab txhais ntu kev hab thaaj chaw luj hlub rua ib cov pej xeem.
- Cais kev txawv txaav hab nyob ua ke lug ntawm qhov tseeb.
- Cais kev xaam phaaj raws algebra, tshooj, ntxiv kuas sis npaug, hab tej kaab hab kaum ntawm lub cev siv graphs, cim, hab numbers.

**HOM C: CALCULUS**

- Tso ua ke hab txhais graphs hab kev hloov txuam rua kev tshooj, ntau lub npe, kev tso sis npaug.
- Tso qauv dlaws teeb meem txuam kev hloov, los loov kev txaav, moog ceev, hab lwm yaam kev txawv txaav.
- Muab tej yaam khoom kws muaj cheeb, txhais, tshwm, txaav, hab nthuav dlaav siv qauv hab numbers.
- Cim, Cais, hab pev lub tsaam thawj hloov qeeb ha sai.
- Txhais raws feem ntawm kev txawv txaav, xis le tsawg heev hab ntau heev, raws le txuj kaab nce hab nqeg, qhov sis txawv, hab qhov huv qaab txuj kaab nkaus.

Cov kawm qeb 9 txug 12 xaiv kawm suab seev hab tsi kawm los tau, tsi has yuav yog lub suab los yaam twj suab seev.

**QEB 9**

- Pib los xyum lub suab ntxiv txug kev seev suab ntau hom.
- Cim hab seev suab zoo los raws le yug lub suab. Seev cov yaag suab kws muaj ob-, peb-, hab plaub nqai- tsi muaj ib lu txawv suab hab suab sis luag.
- Npaaj ntaus suab seev kuas yog, lub suab, ncuu, sis luag, suab xim yeem.
- Ntaus qeb C los B solo hab siv tej ntawv kws Wisconsin School Music Association muaj hab siv npaaj kev nqug toj.
- Ntaus paaj nruag hab seev cov yaag suab ua lug nug hab teb kws ib tug nyob huv paab ntaus paaj nruag ua tug teb.
- Qha I, IV, hab V7 chords raws le tug ntiv C, F, hab G. Ntaus yug tug qauv seev thaus ua nrug V chord. Ntaus tuab qhov nuav kuas siv tug twj suab seev ua.
- Teeb ntaus ob lub suab siv tuab hom twj suab seev.
- Nyeem cov ntawv suab seev kws tuab kaab hab ntaus huv yug raab twj suab seev.
- Koom koom txoos cov tshaav, xis le nqug toj Biennial hab kev kawm seev suab.
- Tsim zaaj yaag suab 2:3 suab nce hab nqeg hab nreg.

**QEB 10**

- Seev cov yaag suab kws muaj ob-, peb-, hab plaub nqai-tsi has npe lug qha lub tswv yim pitch, rhythm, hab suab sis luag.
- Ntaus suab hab cim hom yaag suab kws yog qee thaaj huv nplaj teb.
- Ntaus qeb C los B solo hab siv tej ntawv kws Wisconsin School Music Association muaj hab siv npaaj kev nqug toj.
- Qha I, IV, hab V7 chords raws le tug ntiv C, F, hab G. Ntaus yug tug qauv seev thaus ua nrug V chord. Ntaus tuab qhov nuav kuas siv tug twj suab seev ua.
- Qha tug qauv tsib lub suab rua C, F, hab G. Tsim cov qauv seev cev hab them suab rua hom suab seev 12-bar blues format huv tug twj suab seev.
- Npaaj, xyum, hab ntaus lub suab seev cev kws muaj ob lub suab siv hom twj suab ntxhe los lwm yaam twj.
- Nyeem ib nqai yaag suab, hab ntaus tug twj suab seev.
- Qha yaam cim suab kws tsi yog yaam tseem. Nyeem them B-C hab nas sab rua txhua yaam suab seev hab tswv yim.
- Ntaus them paub tsem tsawv kuas yog siv tug twj yug nyam siv.
- Noog hab qha hom suab seev raws le cov lug yog nyob huv zaaj suab seev kws taab tom siv ntawd.
- Koom koom txoos cov tshaav, xis le nqug toj Biennial hab kev kawm seev suab.

*Txuas ntxiv*

**QEB 11**

- Cim hab seev suab kuas dlhos cov them paaj nruag. Dlhos cov cim suab seev huv dlaim ntawv rua tug twj suab seev siv huv chaav kawm.
- Koom ib feem ntawm paab band seev suab kuas dlhos le lub suab ntaus paaj nruag. Saib lub tswv yim suab seev tseem ceeb xis le kub sab, seev suab khoob, has lu lug meej, xim yeem, hab seev suab raws le paaj nruag.
- Ua raws lub suab them B los A hab raws le cov ntaub ntawv huv Wisconsin School Music Association txug kev seev cev rua kev nqug toj hab txhua yaam.
- Ua raws them suab seev B-C kws seev suab ua ke yaam tsim txaj ncu.
- Ua, qha, hab tsim ib cov kev seev cev hab "straight" rua hom seev cev ua paab.
- Tsa ob hom suab le ua concert kuas hum ob tug twj suab seev.
- Sau hab khu lub suab rua them 32, tsib ntu raws kev seev suab ua tej paab hab lub suab nrov luj los yau.
- Tsim, sau, xyum, hab nqeg teg ua hom suab kws raws le sub-Saharan Africa, Caribbean, hab Java.
- Siv computers sau los npaaj txheej suab seev rua ib qhov kev nkaum paaj nruag.
- Nqeg teg xyum ntau hom chaconne los passacaglia, kws qeeb, zoo heev, suab seev seev cev. Thaum txug cov zoo sis thooj le nuav.
- Koom koom txoos cov tshaav, xis le nqug toj Biennial hab kev kawm seev suab.

**QEB 12**

- Koom ib feem ntawm paab band seev suab kuas dlhos le lub suab ntaus paaj nruag. Saib lub tswv yim suab seev tseem ceeb xis le yug kev kub sab.
- Nthuav hab coj kev ua sis dlhos, muaj sis thaam hab tsom rua kev ua kuas suab sis nkaag, suab xim yeem /CM/suab seev/lub suab maav maav, hab tswv yim suab seev.
- Ua them suab A hab raws le cov ntawv qha tuaj ntawm Wisconsin School Music Association.
- Ua them suab A-B raws tej ntaub ntawv suab seev huv cov tsev yim suab seev.
- Sau hab tsa ib qhov suab seev moog ib nyuas ntu kev raws xaiv, le cov suab dlhos. Ua raws le cov cai qha los kev paaj nruag.
- Nyeem cov ntawv kws muaj them B-C sis xyaw es tsom rua lub tswv yim suab seev.
- Ua cov txheej txheem ntaus paaj nruag kuas txim npo hab yog raws le hom twj suab seev.
- Xyum ib qhov ntawm ib zaaj suab seev kws ntev, nrhav hab dlaws tej kev nyuaj ntawm teg num.
- Koom koom txoos cov tshaav, xis le nqug toj Biennial hab kev kawm seev suab.



Cov kawm theem sab yuav tsum kawm tau 1.5 units kev tawm dlaag zug huv yim semesters. Cov kawm qeb 9 txug 12 yuav tsum koom ntau yaam num txuam yuaj rua kev tawm dlaag zug. Qhov nuav los loov team sports los lwm yaam kws ua rua yug kheeb zoo. Lub hom phaj yog paab tsaa tug cwj pwm nyam txuag lub cev kws yuav yog ib feem ntawm lub neej. Cov kawm yuav:

**QEB 9**

- To taub hab sau yug tug kheej cov hom phaj. Npaaj kev lug ua kuas moog txug cov hom phaj.
- Khaav kev txawj txug tej num ntawd, xis le kev sis koom, kawm yaam nyuaj, kev ua paab, ua ib leeg, kev tawm dlaag zug ib sim neej, hab seev cev.
- Tsom xaam hab qha tej yaam kev moog lug hab cov num kws yug ua tau zoo, hab tej kev xyum txhim khu yug kev ua.
- Tawm kev txaus sab sis tw hab kev ua si.
- Koom kev txuag cev kuas muaj kev noj qaab haus huv hab npaaj hab tsaa hom phaj rua phaab kws yug tseem ua tsi tau zoo.
- Ua raws qha hab ua kuas tau num nrug lwm tug tsi has kev sis tw los koom teg. Ua rua luas pum tas yug yog ib tug tuab neeg sab luj.
- Qha txug kev to taub hab xaam pum lwm tug lub tswv yim. Caw cov neeg kws muaj peev xim/hab tswv yim zoo lug koom tej num.
- Qha txug yug kev paub lwm yaam kev cai thaus moog koom tej yeeb yaam. Tawm yug kev paub taab thaus nrug lwm tug ua si.

**QEB 10**

- To taub lub luag num kws kev tshaaj xu txhawb peb kev xaiv kev ua neej. Tsim ib txuj kev txav txim sab saib yaam dlaab tsi tseem ceeb tshaj kws yuav tau yuav raws yug lub hom phaj hab yaam ceev.
- Nthuav kev txawj moog ib theem lug txhim khu kev sis tw hab tsi sis tw hab lwm yaam.
- Siv kev luj yug tug kheej hab tej lug saab nrau lug txhim khu kev ua kuas moog rua qhov zoo.
- Tawm kev txaus sab hab cwj pwm zoo thaus ua yaam tshab.
- Siv ntawv lug sau yug tej num kws yug ua hab yug lub hom phaj, kev npaaj hab kev nruam ntej.
- Tuav rawv kev paub taab thaus ntsib lub nraa phem lug ntawm tej phooj ywg.
- Txaus sab koom tej num txuam yuaj rua kev cai, xis le kev sis tw hab seev cev.

*Txuas ntxiv*

**QEB 11**

- Siv ib phoo ntawv lug sau yug tej num kws ua kuas yug lub cev zoo/cov num hom phaj, kev ua, hab kev nruam ntej. Khaws tej yug ua saab nrau tsev kawm ntawv.
- Qha txug yug kev txawj kws tau lug ntawm kev kawm sis koom teg, kev sis tw ua paab, ib leeg, tej num ua taag lub neej, hab seev cev.
- Tsom xaam hab qha tej yaam kev seev cev kws zoo es yug txawj ua heev, xis le kev seev cev. Siv tej kev yug paub lug txhim khu yug qhov kev ua.
- Muaj kev txhawb nqaa txhawb zug rua yug cov khub, tsi has txug kev txawj hab peev xim.
- Txawj siv tej lug zoo nrug tej laug hab cov khub sis thaam.
- Tawm kev tswj yug tug kheej hab rua lwm tug kuas tshwm sim lub tsaam thawj zoo thaus ua num.
- Thaam hab npaaj rua cov num sis tw los loov tuab neeg ntau haiv ua ke hab muaj peev xim ntau yaam sis txuam.

**QEB 12**

- Koom kev sis thaam txug lub neej yaav peg suab, hab npaaj txug yug kev noj qaab nyob zoo, lub cev hum, hab tawm zug tom qaab lawb ntawv.
- Qha txug yug kev txawj kws tau lug ntawm kev kawm sis koom teg, kev sis tw ua paab, ib leeg, tej num ua taag lub neej, hab seev cev.
- Tsom xaam hab qha teej yaam kev seev cev kws zoo es yug txawj ua heev, xis le kev ua si basketball. Siv tej kev yug paub lug txhim khu yug qhov kev ua.
- Thaus ho muaj kev rua yug, xaiv koom yaam num ua si tsi has huv tsev kawm los saab nrau.
- Yij meem ua raws le txuj kev npaaj tseg rua kev noj qaab haus huv. Sai hab khu kuas ncaav tau lub hom phaj.
- Qha tas yug muaj kev paub taab zuj zug ntxiv, hab muaj peev xim yuav ua tau tug thawj yog tas lub caij dlhos.
- Qha yug kev txaus sab, kev xaav tau, hab txhawb tug kws zoo txawv lwm tug.

MPS tsom rua qhov tseeb tas kuas txhua tug kawm txawj nyeem hab nyeem kuas tau zoo es ha ca kev xyum nyeem yog ib feem rua huv chaav tsev kawm. Qhov “kev nyeem thoob plawg tug kom tswj” yuav qheb kev rua cov kawm tau kawm kev qha nyeem lug ntawm kev siv ntau hom phoo ntawv, txij le kev qha dlha tej khoom tso rua tsheb moog rua Internet hab kev tshawb nrhav. Nyob qeb 9 txug 12, thaus cov kawm moog kawm cov ntawv kws nyuaj hab nyeem ntau yaam, puab nthuav kev txawj kws paab tau puab lug ntawm kev nyeem.

**QEB 9**

- Siv tswv yim cais lu lug lug leeg paub tej lu lug kws paub tsi zoo.
- Siv tswv yim kev txawj nyeem ntawv lug to taub cov lug hab kaab ntawv huv cov ntawv kws tsi paub zoo; pev le, cais hab to taub cov lug.
- Tawm tswv yim lug cais hab taub yaam kws tau nyeem; pev le, cim hab cais saib tug sau siv dlaab tsi.
- Qha yug tej kev siv tswv yim lug txhim khu kev txawj nyeem ib cov ntawv nplag lag kws tej zag yog ib cov kws nyuaj; pev le, ncu tej yaam yug tub paub lawm ua ntej yuav nyeem.
- Xaiv ntau yaam ntawv lug nyeem kuas paub xuv, txaus sab, hab lom zem.
- Qha tas luas nthuav lub nam tswv yim sau ntawv yaav thaus u hab nwg nuav le caag. Thaam txug kaam teb chaws hab xwm txheej huv kev sis txawv txaav kws tawm tsaam cov sau ntawv. Tsim cov txheej txheem lug luj kev sau ntawv zoo.
- Ntaus cim yaam sis txawv txaav ntawm kev sau ntawv. Siv kev txawj hab kev sau lug to taub cov ntawv; pev le, kev txawv ntawm qhov pib/xaus, pev/cais, hab teeb meem/dlaws tawm.
- Cim, txhais, hab txu lub nam tswv yim hab qhov tseeb lug ntawm ntau lub tswv yim. Siv yaam cuav hab tseeb lug tsom xaam yug kev xaav txug ib qhov nam tswv yim. Has cov lug ntawd.
- Luj yaam khoom kws tug sau siv lug tshaab tug nyeem kev to taub txu tuab neeg kev txawj. Has saib caag puab ho siv ntau yaam lug sau tau zoo.
- Yaam tshawb nrhav. Cais hab luj cov ntawv kws muab xuv. Thuaj cov ntawv muab ntau qhov lug, txaus ntseeg hab txhawb qhov tseeb.

*Txuas ntxiv*

**QEB 10**

- Muab lub tswv yim kev cais lug cais hab qha lu lug yug tsi tau paub; pev le, siv lu yug paub lawd lug txhais lu tsi paub.
- Siv tswv yim lug cais hab qha kev to taub ntawm lu lug los kaab lug paub tsi meej; pev le, to taub lu lug los kaab lug teem hab lu ntshais tau ntau yaam.
- Qha cov tswv yim cais hab qha txug ntau yaam tswv yim kws yuav taw rua kev to taub tej ntawv kws xaiv lug siv rua ntau yaam hom phaj.
- Qha txug kev nyeem kws yuav taw kev cais hab to taub cov ntawv, xis le leeg paub hab cais tau tug sau cov kev xaav.
- Khaav kev nyeem tau zoo thaus ib cov ntawv nyeem tsi yooj yim vim nwg cov lug los kev teeb cov lug rua huv cov ntawv; pev le, txaav kev nyeem nrawm los qeeb.
- Xaiv ntau yaam ntawv lug nyeem kuas paub xuv, txaus sab, hab lom zem.
- Cais hab qha txug cov nam tswv yim huv tej ntawv thaus u hab nwg nuav saib nthuav tawm le caag. Thaum saib cov teeb meem hab tej xwm txheej huv tej haiv neeg hab caij keeb kwm nthuav tug sau lub tswv yim le caag. Nthuav tswv yim lug luj cov lug sau tau.
- Txav tej ntu kws muab sau tau rua huv ntawv lawd. Siv yug kev paub txug kev teeb cov ntawv lug to taub cov lug; for example, cais tshwm sim/ua tav, pev/cais, teeb meem/dlaws tau, tag/siv tswv yim paub.
- Cais hab luj cov twj kws tug sau siv lug dluav cov nyeem kev to taub txug tuab neeg kev txawj. Thuaj, pev hab caav txug kev ua tau zoo ntawm kev siv ntau hom ntawv.
- Cim, cais hab thaam txug lub nam tswv yim hab cov ntsab lug lug ntawm ntau qhov kev pum ntsig txug teeb meem ntawm leej tuab neeg, lub zog, teb chaws hab nplaj teb es muaj nyob huv ntawv. Nthuav hab thaam txug qee qhov kev pum. Has cov lug ntawd.
- Cais hab luj cov twj kws tug sau siv lug dluav cov nyeem kev to taub txug tuab neeg kev txawj. Thuaj, pev hab caav txug kev ua tau zoo ntawm kev siv ntau hom ntawv.
- Yaam tshawb nrhav. Cais hab luj cov ntawv kws muab xuv. Thuaj cov ntawv muab ntau cov lug, txaus ntseeg hab txhawb qhov tseeb.

**QEB 11**

- Qha txug yug kev txawj cais lug cais hab leeg paub tej lu lug yug tsi paub.
- Siv yug qhov kev txawj nyeem lug cais hab to taub cov lug hab kaab ntawv yug tsi paub; pev le, siv cov ntawv pov thawj hab lwm yaam lug paab kuas to taub kaab lug hab cov lug.
- Muab kev txawj nyeem ntawv lug cais hab to taub cov ntawv, pev le has lu lug xaus lug ntawm ib qhov tswv yim hab yaam khoom tug sau siv.
- Muab kev txawj nyeem ntawv lug lug txhim khu kev nyeem nplag lag thaus yug nyeem cov ntawv kws has txug tej yaam nyuaj.
- Xaiv ntau yaam ntawv lug nyeem kuas paub xuv, txaus sab, hab lom zem.
- Pev hab qha kev tso ntau lub nam tswv yim ua ke rua huv ntawv yaav thaus u hab nwg nuav le caag. Thaum txug teeb meem hab xwm txheej huv kev sis txawv txaav hab tej ntu keeb kwm kws tug sau siv lug nthuav nwg cov nam tswv yim. Tsim tswv yim lug luj kev sau ntawv zoo.
- Muab cov ntawv txav ua tej ntu. Siv yug kev paub lug luj qhov tau num zoo ntawm cov ntawv lug to taub cov lug; for example, luj qhov tau num zoo ntawm qhov tshwm sim/ua tav, pev/cais, teeb meem/dlaws tau, tag/ siv tswv yim puab.
- Cim, ua zoo saib hab txhawb lub nam tswv yim hab qhov tseeb lug ntawm kev pum ntau qhov ntawm ib yaam teeb meem. Siv yaam cuav hab tseeb huv cov ntawv lug nthuav qhov yug pum txug yaam ntawd, has cov lug ntawd lug tiv thaiv qhov yug pum, tsi has sau ncauj lug los sau ua ntawv.
- Cim hab luj yaam khoom tug sau siv lug ua theem to taub txug kev txawj ntawm tuab neeg. Has teg num zoo ntawm kev siv cov ntawv nuav rua kev sau ntau yaam.
- Yaam tshawb nrhav. Cais hab luj cov ntawv kws muab xuv. Thuaj cov ntawv muab ntau lug, txaus ntseeg hab txhawb qhov tseeb. Has lu lug xaus hab/los raws le pum.



**QEB 12**

- Siv kev txawj cais lug lug cais hab leeg paub lu lug kws yug tsi paub.
- Muab kev txawj nyeem lug cais hab to taub cov lug hab kaab ntawv yug tsi paub; pev le, siv cov ntawv pov thawj hab lwm yaam lug paab kuas to taub kaab lug hab cov lug.
- Siv tej kev txawj nyeem lug cais hab to taub cov lug; pev le, leeg paub kev saib tsi taug hab kev khaav theeb lug cais hab to taub cov lug.
- Muab kev txawj nyeem ntawv lug lug txhim khu kev nyeem nplag lag thaus yug nyeem cov ntawv kws has txug tej yaam nyuaj.
- Xaiv ntau yaam ntawv lug nyeem kuas paub xuv, txaus sab, hab lom zem.
- Luj hab qha kev tso ntau lub nam tswv yim ua ke rua huv ntawv yaav thaus u hab nwg nuav le caag. Thaum txug teeb meem hab xwm txheej huv kev sis txawv txaaiv hab tej ntu keeb kwm kws tug sau siv lug nthuav nwg cov nam tswv yim. Tsim tswv yim lug luj kev sau ntawv zoo.
- Thuaj kev tso cov ntawv muaj chaw. Siv yug tej kev paub sau ntawv lug to taub cov ntawv hab tug sau lub hom phaj.
- Cim, txhais, hab txu lub nam tswv yim hab qhov tseeb lug ntawm ntau lub tswv yim ntawm ib yaam teeb meem. Siv yaam cuav hab tseeb lug tsim kev pum ntawm yug tug kheej ntawm ib yaam, hab tiv thaiv koj lub nam tswv yim ua lu lug has los sau ua ntawv.
- Cim hab luj yaam khoom tug sau siv lug ua theem to taub txug kev txawj ntawm tuab neeg. Has teg num zoo ntawm kev siv cov ntawv nuav rua kev sau ntau yaam.
- Yaam tshawb nrhav. Cais hab luj cov ntawv kws muab xuv. Thuaj cov ntawv muab ntau lug, txaus ntseeg hab txhawb qhov tseeb. Has lu lug xaus hab/los raws le pum.



Cov kawm yuav tsum tau ob units science ha le tav. Puab yuav xaiv kawm yaam science twg hab lub caij twg los tau thaus nyob theem sab; pev le, ib txha xaiv kawm biology thawj xyoo kag kuas ib txha ho xaav tog xyoo puav tsaiv. Muaj ntau hom science nyob huv kev kawm science.

**Science kev cob cog**

- Siv ntau yaam quav lug sim tswv yim science, ua le science, hab siv tej khoom tshawb nrhav lug kawm txug yaam muaj huv fuab cua los yaam tuab neeg ua.

**Lub ntuj Science**

- Qha saib kev txawj ntse txug science yog tau le caag lug. Qha saib tej teeb meem kws yuav tswm sim lug ntawm kev tshawb nrhav huv science yuav muaj dlaab tsi. Tshawb hab tshaaj tawm cov scientists kws ua tau ntau yaam rua tuab neeg kev ua neej lub neej.

**Qhov tseeb ntawm Science**

- Lub tswv yim tshawb nrhav huv science. Tshawb qhov tseeb ntawm science lug ntawm kev siv tswv yim, technology, hab tej khoom yog. Siv computer tej kev vaam meej, xaam phaaj, hab cov lug dlhos science lug has qhov kawg.

**Kev siv Science**

- Tsawb txug kev xaiv ib qhov num huv science, technology, los engineering. Soj ntsuam txug teeb meem huv zog, xeev, teb chaws, los lub nplaj teb kws siv technology lug dlaws tej teeb meem.

**Science raws npoj hab kev xaav ntawm yug**

- Muab teg num science ua tau rua tuab neeg hab qhov tuab neeg ho ua tau rua lub nplaj teb lug sis cob cog ua ke. Tsom xaam kev tseem ceeb ntawm teeb meem huv zog, xeev, los nplaj teb, hab siv kev txawj ntse science lug cais hab thaam txug qhov yuav dlaws tau tej teeb meem.

*Txuas ntxiv*

## SCIENCE HUV NPLAJ TEB HAB NRUAB NTUJ

### Lub zug nyob huv lub nplaj teb

- Sim hab txheeb tej pob zeb, moov tooj/hlau, hab cov aav. Tsom xaam lub zug kws hloov txheej tawv aav yaav ntuj dlhau lug hab lub zug twg kws naj nub nuav tseem hloov qhov nuav tsi tseg.
- Qha txug kev xaa energy ntawm lub nub rua lub nplaj teb. Muab ib qhov pev txiv txug kev xaa energy huv nplaj teb. Thaam txug lub nraa ntawm tej txham xim tuab neeg siv hab kev tau num ntawm technologies tshab rua lub ntuj.
- Qha saib fuab cua hab dlej hloov lub ntuj tshaav hab naag le caag. Qha txug kev sis cob cog ntawm fuab cua hab lub nub, tsaus fuab, lub nplaj teb kiv, hab tej roob tej haav hab rua hav txiv.

### Kev sis kiv sis xyaw ntawm tej khoom huv aav

- Yuav tsum paub tas lub nplaj teb lub cev ntim ib cov chemical elements kws rov sis kiv moog lug. Cais saib tej khoom ntawd sis kiv le caag huv plawv lub nplaj teb hab tug zug saab nrau nplaim aav.

### Lub hauv paug hab kev tshwm sim ntawm lub ntuj hab nplaj teb

- Hauv paug kev tshawb nrhav txug lub ntuj hab nub qub. Ua ib tug qauv rua lub nplaj teb hab keeb kwm ntawm lub aav. Thaam txug saib kev tshawb lub cej ntug nuav ntxiv tuab neeg kev to taub le caag.

*Txuas ntxiv*



**TXUJ SA HAB LUB NTUJ PUAG NCIG SCIENCE****Lub Cell**

- Pev hab cais lub cev hab teg num ntawm ib cov cells ib lub kheej hab ntau lub ua ke. Nthuav hab qha saib cov cells sis txawv le caag hab teg num yog dlaab tsi; pev le, pev lub cev hab teg num ntawm lub cells ntsaav lab rua lub cells ntawm dlaim tawv.

**Feem ntawm faib sa/neej**

- Qha txug ib lub ntsab kws yog noob ntawm ib lub hauv paug kws naj nub nua es to taub tas muaj.
- Phais lub nam tswv yim txug kev tshwm sim ntawm nplaj teb hab qhov nwg sis dlhos. Qha saib caag ntau yaam noob ho paab tau tej tsaj txhu caj taug.

**Kev tshwm sim ntawm yaam muaj sa**

- Tshawb txug kev koom txoos ntawm tej tsaj nyob ua ke hab sis txeeb chaw huv nplaj teb. Tsom saib kev hloov lub nplaj teb, xis le kev tshwm sim ntawm ib yaam tshab los yog hloov xim txheej puag ncig qhov chaw, yuav ua caag rua qee yaam tsaj.

**Yaam yuav tsum nyob sis cob cog**

- Qha txug lub cev sis cob cog ntawm yaam muaj sa hab yaam tsi muaj sa. Qha hab taw txuj kev kws cov energy nkaag moog tau; pev le, qha txug tas saib lub zug ntawm tshaav ntuj nkaag le caag rua huv nroj hab moog rua tej khoom noj. Qha kev sis kiv ntawm cov carbon, oxygen, hab dlej.

**Thooj khoom, Zug hab kev sis koom ntawm yaam muaj sa**

- Pev tej kev kws yaam tsaj muaj sa muaj zug lug ntawm kev noj, nkaag rua puab lub cev, hab tso yaam tsi zoo tawm. Cob cog cov pej xeem ntawm yaam muaj sa rua yaam khoom puab noj. Qha txug kev sis cob cog ntawm puab lub cev hab puab teg num; pev le, kev kws lub ntsws paab cov ntsaav nqug tau cov cua oxygen.

**Cwj pwm ntawm yaam muaj sa**

- Qha saib caag qhov ua rua yug paub ho paab tau yug cob cog rua lub ntuj puag ncig yug; pev le, qha tas caag cov hlaab ntsaav ntawm dlaim ntawv ho nov luas tuav. Twv saib yaam muaj sa yuav ua caag yog lub ntuj puag ncig puab hloov.

*Txuas ntxiv*

**SCIENCE TXUG LUB CEV****Keu sis tuav ntawm cov Atoms hab Lub cev**

- Nraaj lub moj khum, hab cais cov chemical kws tuav tej ceg ua ke. Qha tug zug kws tuav cov atoms ua ke, hab saib cov nuclear kws fim cov atom ho hloov le caag. Pav teg num txawv ntawm yaam ua kua hab yaam ua lub.

**Chemical Reactions**

- Xaiv hab siv yaam twj kws ntsuag tau tug zug tawm los nkaag rua huv lub cev. Qha tas cov kua ntawd tsi sis hum le caag es ha ua rua muaj kev sis tawm tsaam. Kwv yees kev txawv txaav ntawm lub cev hab cov kua raws le kev sis tov ntawm cov kua.

**Txaav chaw hab Lub zug**

- Siv tug cai txaav chaw, cais saib caag khoom ho txaav tau hab tug zug ua rua khoom txaav. Qha txug kev ua zug kws yog plawv aav, hlau nplaum, los nuclear interactions ua tug dlaj. Pev saib kev paub txug teeb, suab, hab cua suv lug ntawm science siv rua technology le caag.

**Keu txuag tug zug**

- Muab qhov tseeb tas lub zug yeej hloov, hab hloov sis txawv. Qha kev txuag zug thaus zug hloov lug ntawm chemical, lub cev, hab nuclear.

**Keu tsi sis dlhos ntawm Lub cev hab Tug zug**

- Cais hab qha saib dlaab tsi yuav ua rua muaj kev txawv huv lub cev hab tej roj ntsaav rua kev nyob. Xob pev kev siv suav tawg huv tsev le caag, huv tuam tsev ua num, hab huv zog. Sis thaam saib kev sis poo hab kev xyuam xim sis tawm tsaam le caag rua lub cev; pev le, kev tawm tsaam yug lub cev lug ntawv x-ray.

Yuav ncaav tau theem kawm tav, cov kawm theem sab yuav tsum kawm kuas tau peb units phaab poo npoj plaub xyoo kawg. Qhov nuav los loov ib unit U.S. History; ib unit World History, World Geography, World Cultures, los World Studies; hab ib unit Citizenship los ib nraab unit American Government hab ib nraab unit Economics.

### **Cam aav**

- To taub tej khoom ntsuag cam aav, lub twv yim, kev paub num, hab tsib lub nam tswv yim ntawm cam aav: thaaj chaw, qhov chaw, tuab neeg/hab kev sis cuag, moog lug, hab thaaj teb chaws.
- Siv hab tsim dlaim dluab teb chaws hab kes tej kab teb chaws kuas paub qhov chaw hab lwm yaam.
- Tsom xam lub ntuj, kev tseb nyob hab tsiv moog lug ntawm cov pej xeeb.
- Saib teg num ntawm cam aav kws qha kuas paub txug lub ntuj ntawm pej xeeb kev hloov; pev le, thaam txug tas caag fuab cua hloov ho ua rua pej xeeb tsiv teb chaws.

### **Keeb Kwm**

- To taub lub tswv yim hab paub txug kev kawm caij nyoog, ua tsi tu ncu, hloov kev ua neej raws keeb kwm. Tsim yug kev xaav txug keeb kwm hab lub ntsab.
- Qha txug ob qhov chaw huv keeb kwm hab tug zug ntawm haiv, quas puj/quas yawg, kev ntseeg, paab pawg, hab kev cai; pev le, qha txug kev tso kev coj noj coj ua ntawm ib txheej dlhau ib txheej lug ntawm tej fuab tais.
- Tshawb txug yaam zoo kws kev txav txim sab ntawm tuab neeg muaj rua keeb kwm.
- To taub hab qha txug kev pheej moo ntawm keeb kwm. Qhov nuav txhais tas tsaam thawj tog tuab neeg lub tswv yim hab ua, hab lub neej yuav txawv yog tas lub tswv yim hab kev ua tsi tshwm sim.
- Tawm lub peev xim paub txug tej xwm txheej keeb kwm dlhau lug raws ib theem zuj zug, hab pav cov xim txheej raws le to taub.
- Luj tej kev paub txug keeb kwm lug ua qhov tseeb, yaam tsim nyog ntseeg, hab muaj nqes, kws paub tas yog yaam tseeb.

- Leeg paub hab qha kev txhais keeb kwm kev xaav sis txawv nyob huv keeb kwm.
- Qha saib kev sis poo, laag luam hab kev sis kheem thaus ntawd npawm puab lub neej le caag.
- Keeb kwm Asmesliskas – Has tej lub tsaam thawj hab xwm txheej tseem ceeb huv U.S. history. Txhais cov xwm txheej, kev hloov ntawm tuab neeg, kev tswj teb tsaav chaw, hab cov tuab neeg tseem ceeb kws tau hloov U.S. history.
- Keeb kwm nplaj teb – Has hab txhais cov caij hab xwm txheej huv keeb kwm nplaj teb hab kev txawv txaav ntawm tuab neeg, kev ntseeg, hab kev koj noj koj ua. Leeg paub cov tuab neeg kws hloov cov tsaam thawj ntawd.

### Science lug tswj hab kev yog pej xeem

- To taub txug lub tswv yim kawm txug feem ntawm tug pej xeem, hab kev tsaab hab teg num ntawm tseem fwm tsaav xwm teb chaws. Qhov nuav los loov fwj chim, cai ua, tswj, hom kev cai tswj, hab U.S. kev tswj hab lub hauv paug.
- Pev hab cais hom kev koj noj koj ua hab tej kom tswj puas tsaav yaam; pev le, has txug kev sis txawv ntawm democracy hab oligarchy.
- Tsom xaam U.S. txuj kev koj noj koj ua hab muaj kom tswj rua pwm tsaav. Qhov nuav los loov federalism, saib kuas sis txig sis luag, hab muaj tsaab txuj cai, executive, hab judiciary branches lug tuav fwj chim.
- Saib cov ntawv hab lub ntsab huv cov ntawv kws United States tsim tawm lug, xis le Declaration of Independence hab United States Constitution.
- To Taub kev tseem ceeb ntawm tej tug tuab neeg txuj cai hab nwg feem raws has tseg huv ntaub ntawv, xis le the United States Constitution. Luj txuj kev kws pej xeem muaj cai koom tau kev tswj teb chaws huv them zej zog, xeev, hab thoob teb chaws. Pav txug kev txuam yuaj ntawm pej xeem txug kev txuam yuaj rua kev tsim cai – zej zog, teb chaws, hab nplaj teb.

*Txuas ntxiv*



**Phaab nyaj txag**

- To taub lub tswv yim phaab nyaj txag hab kev siv tej kev txawj es kawm tau lug ua khoom, muag khoom, hab siv khoom hab ua num rua huv zog, thaaj teb chaws, hab nplaj teb.
- Qha txug kev tsi muaj khoom ntau, tsi muaj ncauj ke ntau, laag luam qeg, kev ua khoom, hab kev siv khoom.
- Pev kev laag luam muaj tug tswj los tuav khov.
- Qha txug lub luag num ntawm U.S. paab pwm tsaav hab kev laag luam.
- Cais lub tswv yim ua luam hab kev sis pauv huv nplaj teb. Qha saib kev sis pauv huv nplaj teb paab tej tug tuab neeg, teb chaws U.S., hab lwm lub teb chaws le caag.
- Cais txug kev sis paab huv txuj kev laag luam. Cov nuav los loov kev ruaj khov, ywj pheej, nyaj txag, tau num, xim yeem, dlej num, hab tau nyaj.
- Qha txug kev sis cob cog ntawm kev muaj nyaj hab kev tuab neeg txaus sab yaam puab xaav tau.
- Tawm yug kev to taub txug kev khaws nyaj, los loov qhov chaw taub nyaj lug, kev tuav nyaj, siv nyaj, credit, hab ca hab tso nyaj noj paaj.

**Sciences txug cwj pwm**

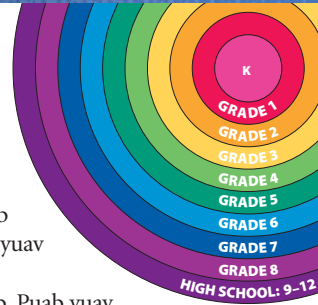
- To taub txug lub tswv yim kawm txug phaab sociology, psychology, hab anthropology. Sociology yog kawm txug kev sis cob cog ntawm tuab neeg, paab pawg, hab chaw kawm. Psychology yog kawm txug kev cob qha tuab neeg kuas puab paub tug kheej hab kev kawm. Anthropology yog kawm txug kev cai tej theem zuj lug hab tej chaw ib qho zuj zug.
- Leeg paub tas teeb meem ntawm suav dlawg luj tshaaj ib tug tuab neeg.
- Tshawb txug kev muaj vaaj huam tsi sis luag raws le ntau yaam, los loov noob neej, haiv, theem neej, hab noob nyoog, hab yuav tawm tsaam kev ua neej le caag.
- Pev kev cai ntawm tsev neeg huv tej kev cai hab feem ntawm tej leej neeg.
- Qha saib caag paab pawg hab kev cai ha muaj feem rua tuab neeg kev luj hlub, meej mom, hab cwj pwm.
- Pev txug lub ntsab ntawm tej paab pawg, kev ua tim xyoob rua paab pawg txhais le caag, hab tej dlej num ntawm paab pawg.
- Qha kev sis xaa xuv, koom teg, hab dlaws teeb meem.

# Believe it – Achieve it!

MILWAUKEE PUBLIC SCHOOLS

## Hom Phaj Kawm yuav muaj kev zoo rua koj hab koj tug miv nyuas.

- Hom Phaj Kawm qheb kev rua koj pum yaam koj tug miv nyuas yuav kawm huv cuaj yaam nyob huv tej qeb kawm.
- Cov xib fwb yuav muab tau qauv ntawm cov num miv nyuas ua rua koj saib kuas koj paub yaam yuav tshwm sim lug ntawm koj tug miv nyuas.
- Yog koj tug miv nyuas ncaav tsi tau theem txawj le sab xaav, tug xib fwb yuav paub yaam kws koj tug miv nyuas yuav tsum kawm hab yuav qha cov teeb meem.
- Cov miv nyuas los yuav paub tas tej hlub tog dlaab tsi ntawm puab. Puab yuav pum cov ntawv hom phaj kawm kws lu phaab tsaav huv chaav tsev kawm has txug tej yaam kawm ntawd.



## Hom Phaj Kawm paab cov tsev kawm ntawv dlha num tau xim yeem.

- Cov xib fwb qha txhua qeb ua raws tuab lub hom phaj, siv tuab lub tswv yim.
- Xaav kuas txhua tug miv nyuas kawm tau zoo xim yeem log.
- Muaj tuab lub Hom Phaj nyob huv txhua chaav tsev kawm txhais tau tas yog ib tug miv nyuas yuav hloov tsev kawm ntawv los yuav tsi nplaam yaam tseem ceeb huv nwg kev kawm.

## Cov miv nyuas kws ho kawm tsi tshua tau los yuav muaj ntau txuj kev rua puab lug moog ncaav kuas tau lub Hom Phaj.

- Cov miv nyuas kws yuav yuav kev paab ib caag los yuav raug tog txais raws le puab lub peev xim kawm raws caij nyoog.
- Kev npaaj rua puab yuav has rua huv cov ntawv IEP los kev npaaj kev kawm 504.
- Cov miv nyuas nuav yuav muaj caij ib caag lug ua puab cov num hab rua kev ntsuag puab kev kawm.
- Puab tseem yuav tau txais kev qha ua num ib theem zuj zug nrug rua tej twj paab kuas puab tej khoom nyob muaj chaw.
- Qee zag, paab IEP/504 yuav tau tsoom xaam saib tug txheej txheem qha ib caag rua cov miv nyuas nuav puas yuav yog qhov zoo.

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Yuav saib MPS cov phoo ntawv Hom Phaj (Nam txiv ntu) nkaag rua <http://mpsportal.milwaukee.k12.wi.us> hab ndliv "Nam txiv."  
Yuav saib cov xib fwb ntu, nkaag rua <http://mpsportal.milwaukee.k12.wi.us> hab moog rua Teacher Community homepage.



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