XISAAB KU MUUJI FIKIRKAAGA

QAAB DHISMEEDKA

- Dulmarka hawlaha & diyaarinta (5-15 daqiiqo)
- Isbarasho (2 daqiiqo)
- Hawl & hadal iswaydaarsi ama wada hadal (15-30 daqiiqado)
- Xiritaanka (10-15 daqiiqo)

UJEEDOOYINKA

Dhamaadka hawshan, ka qeybgalayaasha waxay awoodi inay:

- Dib u habeeyaan faallooyinka maalin walba ee fikrado xisaabta

WAQTI 40-60 DAQIIQO

Hawshan, waalidiintu waxay dib u fiiriyaan faallooyinka maalin walba ah ee fikrado xisaabta si ay u qaabeeyaan sida xisaabtu u noqon karto qayb loo bareeray oo ka mid ah wada-sheekaysiga maalin walba.

AALADAHA

Wax yaabaha loo baahan yahay:

- Kaararka tusaha(kaarar yaryar oo cad oo wax lagu qorto) ama warqad lagu qoraayo faallooyinka maalin walba lagu yaabo inuu daryeel-bixiyuhi dhaho
- Weel (baaquli ama danbiil) aad ku hayso fikrado la diyaariyay.
- Qalin-rasaas(qalin-qore)-hal mid oo waalidka kaste la siiyo

Soo jeedin:

- Dooro hal ama labo fiidiyow "xisaabta shaaca laga qaaday ama lasoo muujiyay" si ay waalidiintu guriga ugu daawadaan.
- Calaamadayso tallaabooyinka hawlaha:
  - Qaado qoraal
  - Adiga oo aamusan akhri, oo u badal fikrad xisaab
  - La qaybso fikradaada lammaanahaaga ama kooxda yar
  - Kala hadal kooxdaada si aad uga fikirtaan siyaabo kale oo aad fikrada maalin walba ugu badali laheyd fikrad xisaabeed

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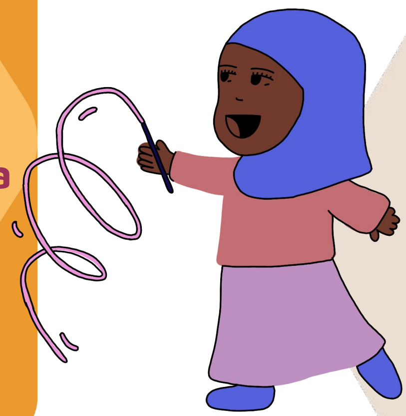
IS DIYAARINTA

QORAALADA QABANQAABIYAHA

AWOODDA DHISMAHA

Hawshani waxay ku dhisan tahay cutubka **Muujinta Xisaabta Nolol Maalmeedka** laakiin uma baahna dhamaystirka cutubka (Cutubka 2, Qaybta 2)



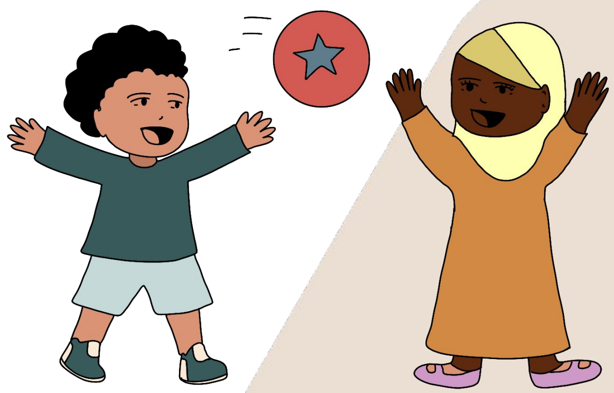
ISBEDDELKA

Isticmaal fikradahan si aad wax uga beddesho hawsha ku salaysan:

- Da'da ilmaha
- Waqti iyo agab la heli karo si loo hirgeliyo
- Taageerada waalidiinta

TALOOYIN

Qoraalka buluuga ahi wuxuu tilmaamayaa in fududeeyayaashu ay oran karaan (tusaale, "Maanta waxaan sahamin doonaa hadalka xisaabta ee hawl maalmeedkeena"). Qoraalka caadiga ah ama joogtada ahi waa macluumaadka qabanqaabiyaha.



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DULMARKA HAWLAHA

Waalidiinta ayaa laga yaabaa inay dareemaan mashquul inay "ku daraan" xisaabta liiska hawl maalmeedkooda.

Markay bartaan inay xisaabta ku daraan hawl-maalmeedka caadiga ah, waalidiintu waxay ka faa'iidaysan karaan fursadaha dabiiciga ah si ay u tusaan carruurta in xisaabtu faa'iido leedahay, iyagoo sidoo kale dhisaya erayada xisaabta ee carruurtooda iyo dhiirigelinta fikirka xisaabta.

Hawsha "Samee Fikrad Xisaab" waxay caawisaa waalidiinta inay ku celceliyaan inay faallooyinka maalinlaha ah u beddelaan fikradaan xisaabta.

Inta lagu jiro hawshan, waxaad ka caawin kartaa waalidiinta inay arkaan qiimaha ay u leedahay inay u bareeraan inay u helaan fursadaha ay ugala hadlaan xisaabta carruurtooda, gaar ahaan xisaabta ay horay u sameynayaan laakiin aan weli ka hadlin!

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DIYAARINTA

10-15 Daqiiqo

Kahor intaadan bilaabin hawsha, waxaad u baahan doontaa inaad ogaato inta ka qaybgalayaasha ah ee aad yeelan doonto. Ku qor fikrado ku filan (korka tusmooyinka ama warqadaha—ama isticmaal daabacaad si aad u daabacdo) si aad u hesho wax badan oo qof kastaa uu doorto ugu yaraan laba. Ku dar fikrado dheeraad ah si aad ugu oggolaato waalidiinta inay doortaan mid kale haddii aysan ku faraxsanayn doorashadooda koowaad.

Isku laab weedhaha kala bar si aan erayada loo arkin, ka dibna ku rid baaquli ama dambiil. Dooro hal fikrad si aad naftaada u isticmaasho, tusaale ahaan, kana saar weelka.

Ku rid weelka meel ay dhammaan waalidiintu ka gaari karaan, ama diyaar u ahow inaad hareer marto. Waxaad isticmaali kartaa weelal badan haddii aad rabto.

Samee calaamad ay ku qoran tahay afarta tallaabo ee ku taxan hagaha guud. [1. Bal hadal qaado; 2. Aamusnaan u akhri, oo fikrad u beddel; 3. La wadaag qoraalkaaga lamaanahaaga ama kooxda yar; 4. Kala hadal kooxdaada si aad uga fikirto siyaalo kale oo aad fikrada maalinlaha ah ugu badali lahayd fikrad xisaabeed].

Haddii aad u fududaynayso kooxda adigoo isticmaalaya madal khadka ah, la wadaag shaashadda koobiga fikradaha si ay waalidiintu u doortaan mid iyaga ku habboon. U yeel inay ka fikiraan si ay ugu beddelaan fikrada maalinlaha ah una beddelaan fikrad xisaab, oo weydii tabaruceyaasha inay wadaagaan.

If you need additional support to gather ideas on how to turn an everyday statement into a math statement, visit:

https://dreme.stanford.edu/news/make-statement-math-how-get-kids-and-you-talking-about-math

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IS DIYAARINTA

Isbarasho

2 Daqiiqo

Soo bandhig Hawsha. Tusaale ahaan, waxaa laga yaabaa inaad dhahdid, **"Maanta waxaan fiirin doonaa qaar ka mid ah fikradaha laga yaabo inay ka soo baxaan wada sheekaysiga maalinlaha ah, oo aan ka wada shaqeyno sidii aan dib u fiirin ugu sameyn lahayn si loogu daro xisaabta. Ujeedada hawshani waa in si ula kac ah loo ogaado xisaabta iyo in lagala hadlo xisaabta carruurta si looga caawiyo inay u fekeraan xisaab ahaan, oo ay u dhisaan erayadooda xisaabta."**

HAWL IYO FALANQAYN

Qaybta 1aad: 20-40 Daqiiqo

Bartayaasha qaangaarka ah waxay ka faa'iidaystaan waxqabadyada ku lug leh "samaynta" halkii ay ka ahaan lahaayeen "dhegeysi", gaar ahaan haddii ay haystaan fursad ay uga fikiraan fikradahooda. Hawshan "xisaab ku muuji fikirkaaga" waxay u baahan tahay qof walba inuu dib u eego fikradaha maalinlaha ah ee weedhaha xisaabta, marka hore keligood, ka dibna wada xaajoodyada laba-labo ama kooxo yaryar, iyo ugu dambeyntii, dood koox dhan. Qaabkani waxa uu caawiyaa waalidiinta in ay abuuraan fikrado loogu beddelo fikrad-maalmeedka fursadaha lagaga hadlo laguna taageero xisaabta hore. Qaybta yar ee hawsha waxa ay fududaysaa ka qaybgalka dadka laga yaabo in aanay ku qanacsanayn in ay hadlaan inta lagu jiro qaybta kooxda oo dhan ee hawsha. Wadaagista fikradaha kooxo yaryar waxay ka dhigan tahay in qof weyni uusan la hadlin kooxda oo

Ku rid bayaannada aad horay u sii diyaarisay baaquli ama dambiisha oo weydii ka qaybgalayaasha inay mid qaataan.

"Markaan maddiibadka (dambiil) hareerihiisa marayo, soo saar hal bayaan oo naftaada u akhri. Waxaan u rogi doonaa odhaahyadan maalinlaha ah odhaahyo xisaabeed."

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IS DIYAARINTA

HAWL IYO FALANQAYN

Qaybta 2aad: 20-40 Daqiiqo

Laftaadu hal bayaan ka soo qaad baaquli (dambiil), oo isticmaal si aad u qaabayso adigoo u rogaya bayaan xisaab, adiga oo kor u akhriya bayaanka oo dib u eegaya, oo muujinaya xisaabta aad ku dartay.

"Horta waan tagi Waa kan hadalkaygii." [akhri bayaanka horay loo doortay]

"Hadda, waxaan u rogi doonaa hadal xisaabeed." [tusaale ahaan bayaanka xisaabta]

"Maxay ku kala duwan yihiin labada siyood ee loo odhan karo hadalkan?"

"Maxaa laga yaabaa in ilmahaagu ka barto xisaabta hadalka labaad ee aanu ka baran lahayn kii hore?"

Sii ka qaybgalayaasha wakhti ay ku soo saaraan fikradahooda u gaarka ah si ay bayaankooda ugu beddelaan odhaah xisaab. U oggolow ikhtiyaarka qorista fikradaha, haddii ay habboon tahay.

"Hadda bal hadalkaaga eeg. Maxay yihiin qaar ka mid ah siyaabaha aad ugu beddeli karto bayaan xisaab?"

Kadib markii ay daryeelayaashu ku guulaystaan bayaanka ay ka doorteen baaquli(dambiil), ku dhiiri geli in ay ka fikiraan hadaladooda iyaga oo waydiinaya waxa ay inta badan u sheegaan caruurtooda.

"Waa maxay weedhaha qaar ee aad caadi ahaan u isticmaasho carruurtaada? Sideed ugu rogi kartaa bayaannada xisaabta?"

Ka qaybgalayaashu way lamaanayn karaan, samayn karaan kooxo yaryar, ama waxay ahaan karaan sida hal koox oo wayn-kadibna way wadaagaan fikradahooda, kana wada hadlaan kuwa cusub.

Ka dib markii waqti ku filan la wadaago uu dhacay, ka wada hadal koox weyn si qof kastaa uga faa'iidaysto dhammaan fikradaha ay keeneen shakhsiyaadka iyo kooxaha yaryar (haddii la isticmaalo)

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IS DIYAARINTA

HAWL IYO FALANQAYN

Qaybta 3aad: 20-40 Daqiiqo

Mid ka mid ah ujeedooyinka hawshan waa in la dhiso dadaallada ula kac ah ee waalidiinta si ay ilmahooda uga qayb-galiyaan hadalka xisaabta. U dabbaaldeg isku dayga waalidiinta si ay ula yimaadaan fikradaha xisaabta oo xoogga saar in gelinta xisaabta ee wada-hadallada maalinlaha ah ay ka caawin karto carruurtooda inay ka fikiraan xisaabta. Xooji guushooda si aad awood ugu siiso inay sii wadaan adeegsiga xirfadan ka baxsan fadhiga waxqabadka.

XIRRITAANKA

5-10 Daqiiqo

Ku dar waxyaalahan muhiimka ah ee laga qaadanaayo kulanka marka aad soo xirayso wada hadalka waalidiinta. Waxaad ku sheegi kartaa si qoraal ah, ama u qeex si ku salaysan khibradaha waalidiinta.

- Waalidiintu waxay ku dari karaan fikradaha xisaabta wadahadalka maalinlaha ah ee carruurtooda.
- Waalidiintu waxay noqon karaan kuwo ula kac ah oo ku saabsan isticmaalka erayada xisaabta ee waaya-aragnimadooda maalinlaha ah ee carruurtooda.
- Wadahadalada xisaabta ee lala yeesho waalidiinta ee macnaha guud ee waxqabadyada maalinlaha ah waxay taageertaa horumarinta erayada xisaabta ee carruurta yaryar waxayna dhiirigelisaa fikirka xisaabta.

Si loo xoojiyo waxbarashada, weydii qoysaska iney kula qaybsadaan ama kula wadaagaan hal wax oo ay ka barteen xisaabta hore ee hawlqabadkan.

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ISBEDDELKA

DA'DA ILMAHA

Tixgeli da'da carruurta qoysaska aad la shaqeyso. Haddii carruurtu aad u yar yihiin, sida kuwa socda baradka ama saan-qaadayaasha, ka caawi waalidiinta inay ka fikiraan sida ay u muujin karaan fursado xisaabeed oo kala duwan marka la barbar dhigo carruur waaweyn.

WAQTIGA IYO AGABKA

Haddii aad haysato wakhti xaddidan oo aad la wadaagto hawsha waalidiinta, tixgeli inaad yarayso hawsha si aad diiradda u saarto ka wada-hadalka hal ama laba muuqaal.

TAAGEERADA WAALIDIINTA

Haddii waalidiinta aad la shaqeyso ay u baahan yihiin tixgelin dheeraad ah si ay uga qayb-qaataan, hubi inaad ku taageerto baahiyadooda sida:

- Usoo bandhig qoraal kooban
- Bixinta dhammaan agabka oo lagu qoray luqadda hooyo ee waalidiinta (oo leh tarjumaad marka ay khuseyso)
- Waalidiinta doorbidaya inay la falgalaan agabka iyagoo isticmaalaya habab kale oo aan ahayn wax-akhriska ama leh xirfadahooda akhris-qoris oo hooseeya, sii maqal (waxaad duubi kartaa faylal maqal ah ama kor u akhri agab) oo ka qayb-gal wada-hadal meeshii aad wax akhrin lahayd.
- Tixgeli sida ay odhaahyadu u kala duwanaan karaan kooxaha dhaqanka iyo luqadaha. Ku taageer qoysaska si ay u abuuraan odhaah u gaar ah oo la jaan qaadaya xaqiiqooyinkooda dhaqan iyo luqadeed.
- Dib u eeg dhammaan fikradaha wakhti ka hor, iyo haddii ay jiraan kuwo aan ku habboonayn waalidiinta aad la shaqeyso, iska dhaaf. Waxa laga yaabaa inaad u baahato inaad samayso qoraallo uu waalidka aad la shaqaynayso ay u badan tahay inuu sheego. Fikradaha aan bixino waa bar bilow, sidaas darteed waalidiintu waxay sidoo kale ka fikiri karaan fikradaha hawl maalmeedkooda ka dib marka fikrada ugu horreeya loo isticmaalo tusaale ahaan.

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FAAHFAAHINTA WAALIDIINTA

"Waqtiga jiifka ama la seexanayo."

"Waa inaan raacnaa baska."

"I need you to put away these toys."

"Diyaar ma u tahay iskoolka?"

"We need to go to the grocery store."

"Waxaan u baahannahay inaan dukaanka kasoo adeegano."

"Dhammaan waxyaabaha cuntada lagu kariyo aa ku jira baaquliga."

"Fadlan la wadaag miraha ama cuntada fudud ee miraha."

"Waa walaalkaa markiisa."

"Aan kuu ordo ilaa tiirarka ciyaarta!"

"Waxaan halkan ku arkayaa xayawaano badan."

"Beerta fiiri."

"Cuntadani waxay uu bahantahay baradhada."

"Kuwani waa calaamadaha waddooyinka."

"Buugaagteena maktabadda ayaa la filayaa berri."

"Ilkahaaga ma cadayday?"

"Fadlan saxamuunta ku rid waaskada jikada meesha weelka lagu dhaqo."

"Aan halkaas ku qaadano dalxiiskeena."

"Qaybtan halxiraalaha ayaa halkan tagta."

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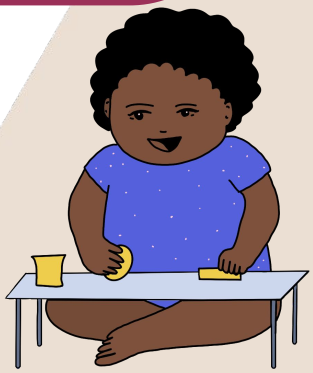

HAWLAHA LOOGU TALAGALAY XIRFADLAYAASHA TAAGEERADA QOYSKA:

Sahaminta Xisaabta Hore

"Habka Xisaabinta" waxaa loo sameeyay Xirfadlayaasha Taageerada Qoyska si ay ula adeegsadaan qoysaska ay u adeegaan. Dhammaan waxqabadyada waxaa lagu heli karaa lacag la'aan, gudaha machadka Xisaabta Horumarinta Ilmaha iyo website-ka Tirooyinka, si gaar ah loogu isticmaalo qoysaska iyo waalidiinta. Qalabkan ayaa laga yaabaa maaha in dib loo soo saaro ama loo qaybiyo mid kasta oo loogu talagalay dadaalka faa'iidada iyada oo aan oggolaansho cad laga helin horumarinta hogaanka, Drs. Wackerle-Hollman iyo Mazzocco.

Cutub 1: Sida Fikirka iyo Dabeecadaha ay u Saameyn karaan Xisaabta Hore

Hawlqabad 1.1 Qof Walba Wuu Guulaysan
Hawlqabad 1.2 Aragtii Cusub
Hawlqabad 1.3 Habka Xisaabinta
Hawlqabad 1.4 Ka Barashada Khaladaadaha Xisaabta
Hawlqabad 1.5 Fikrado, Su'aalo, iyo Wada-Hadal
Hawlqabad 1.6 Hagaajinta Hab-Dhaqanka
Hawlqabad 1.7 Waxaan Nahay Dhamman Dad Xisaabed

Cutub 2: Xisaabtu waa tirooyinka iyo in ka badan: Sahaminta Mawduucyada Xisaabta Hore

Hawlqabad 2.1 Kaleidoscope Xisaabta
Hawlqabad 2.2 Mawduucyada Xisaabta Hore
Hawlqabad 2.3 Sawirka Xisaabta
Hawlqabad 2.4 Kor U Qaadis!
Hawlqabad 2.5 Barashada Socod Baradka

Cutub 3: Helitaanka Xisaabta ee Nolosha Maalinlaha ah

Hawlqabad 3.1 Sheekooyinka Guusha Xisaabta Hore
Hawlqabad 3.2 Cuntooyinka Fudud Ee Xisaabta
Hawlqabad 3.3 Raadinta Xisaabta Qarsoon
Hawlqabad 3.4 Xisaab Ku Muuji Fikirkaaga
Hawlqabad 3.5 Ficilka Xisaab Maalmeedka
Hawlqabad 3.6 Jadwal Maalinle ah oo Fudud

Hawlahan waxaa soo saaray Shaybaarka Xisaabta iyo Tirooyinka, oo uu hogaaminayso Michèle Mazzocco, Machadka Horumarinta Carruurta (ICD), iyada oo la shaqaynaysa waa Alisha Wackerle-Hollman, Agaasimaha IGDI Shaybaarka, Waaxda Cilmi-nafsiga Waxbarashada, labadaba Jaamacadda Minnesota. Wax ku darsaday waxaa ka mid ah ardayda dhaktornimo ICD Sarah E. Pan, MA, iyo Jasmine R. Ernst. Shaqadan waxaa taageeray Heising-Simons Foundation DREME Network Awards 2018-0670 iyo 2020-1777. Waxaan u mahadcelineynaa Shaybaadhka Xisaabta iyo Tirooyinka ee gacan ka geystay shaqadan, Xirfadlayaasha taageerada qoyska kuwaas oo bixiyay jawaab celin ama nagu soo dhaweeyay (iyo hawlaheenna) fasalladooda, iyo la-taliyeyaasha jaalkayaga bulshada kuwaas oo bixiyay fikrado ku saabsan xulashada luqadda oo keenay sawirro si ay shaqadani uga dhigto mid macno leh beelaha Laatiinka iyo Soomaalida.

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