Larai Da Ɓoyayyen Ruwa

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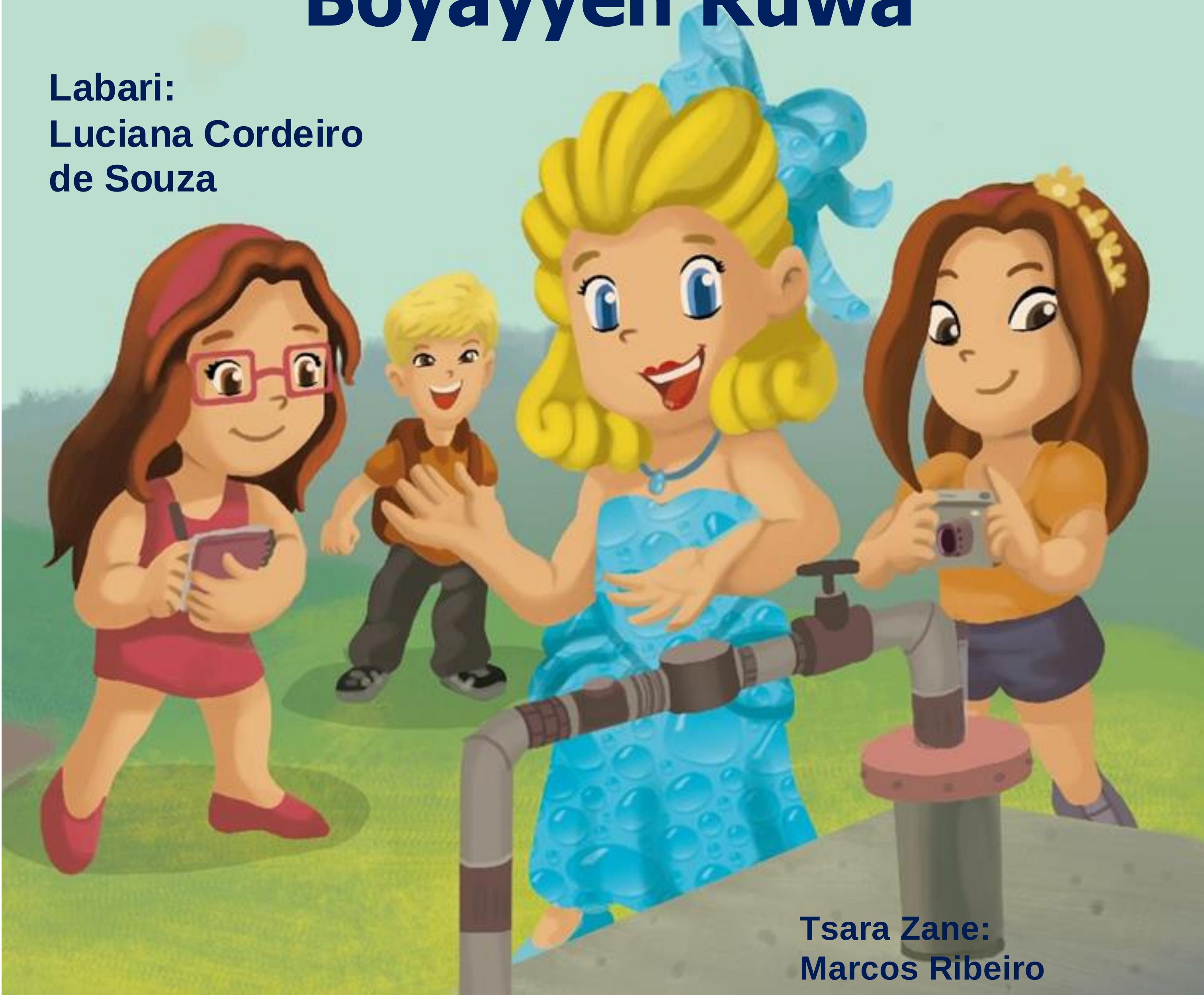

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LARAI DA ƁOYAYYEN RUWA
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Gabatarwa

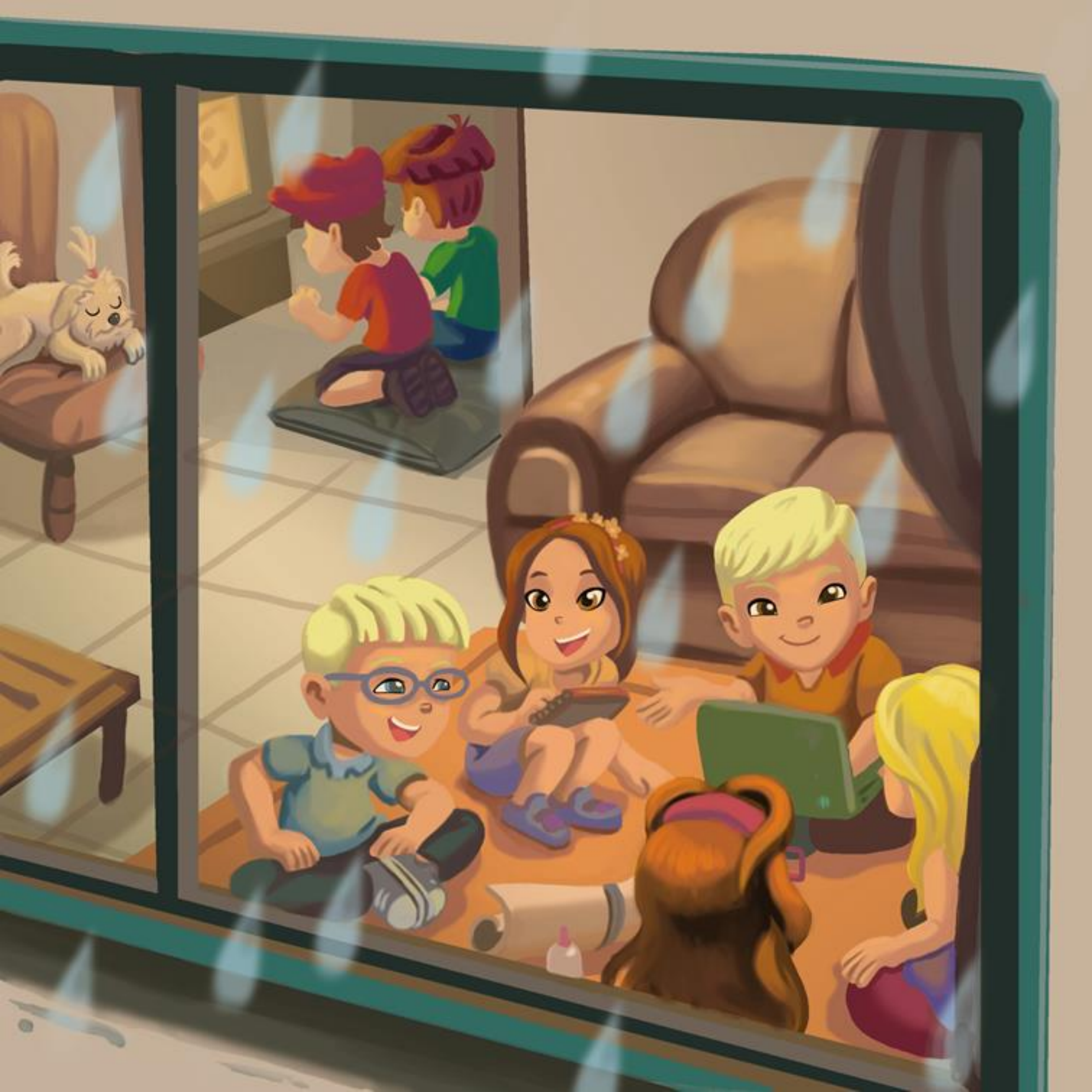
Wannan labarin na ƙirƙireshi ne a lokacin da nake karatun digiri na uku a sashin dokokin muhalli domin ilmantar da ‘yan uwana Mary Ann, Junior da Guilherme, ta yanda zasu gane amfanin kare muhalli, musamman ma abokin rayuwarmu wato “Ruwa”. Darasi ne wanda na ɗauki sama da shekaru ashirin ina bincike a kansa. Amma tambayar itace, ta yaya zamu koyarda yara akan Ruwa batare da amfani da kalmomi masu sarƙaƙiya ba? A wannan lokacin ne aka haifi Larai: yar ƙaramar ɗigon ruwa dake rikeɗewa zuwa ƙaramar yarinya ta hanyar wasa, karsashi da siddabaru. Munyi nufin bayyanar da ɓoyayyen ruwan ƙarƙashin ƙasa ta hanyar nuna idon ruwa a wannan tatsuniya. ta wannan hanyar sai ruwan ya zamo abokin wasa ga yaran. Mu kuma muna kula da kare abokanmu!

Luciana Cordeiro de Souza

Ruwan sama ake ta makawa tun da rana.

Rabi ce acikin ɗakin tare da abokanta da ƙawayenta wato, Dije, Audu, Bilki da kuma Iliya suna bitar aikin gidan da aka basu a ajin kimiyya. Har yanzu basu cimma matsaya akan maudu’in ba. Sani da Bala kuma suna gefe suna kallon talabijin.

Shi kuma karensu mai suna Duna yana barci.



Sai suka duba yanar gizo domin neman maudu'i

"Ya kamata muyi aiki akan Ruwa" inji Rabi. Sai ta tuna wasu watanni da suka wuce lokacin ita da ƙaninta Sani suna goge haƙoransu. A lokacin da ruwa ke kwarara daga famfo,, wani ɗigon ruwa mai manya da kyawawan idanu ya faɗo a bakin makwararar ruwan. Sai mamaki ya kamata itada da Sani. Ɗan karamin ɗigon ruwan yana iya Magana, sai suka saka mata suna Larai!

“Amma fa Larai tace kada mu ɓarnatar da ruwa, sai dai muyi amfani da wanda muke da buƙata,” Dije tayi ma abokanta bayani ta ƙara dacewa, “Ruwa yana daga cikin ma’adanan qasa masu daraja, kuma bazamu iya rayuwa ba idan babu shi.”

Sai ƙawayenta suka sheƙe da dariya suna faɗin, ta yaya ɗigon ruwa zai yi Magana?.

“Ai siddabaru ne,” Rabi ta musu raɗa. “ai ɗigon ya rikiɗe ne zuwa wata yarinya.. idanunta shuɗi ne kamar kalar teku, kuma gaba x8aya tufafinta ma shuɗi ne.”

ƙawayenta dije suka sake bushewa da dariyar da tafi ta farko, har sai da ƙarar sautin dariyar tasu ta tashi karensu duna dake barci akan kujera, yana tashi kuwa ya fara haushi.

Rabi ta juya ta kalli taga tana mamaki. “me yasa bazasu yarda dani ba?” sai ta buɗe tagar kaɗan ta shaƙi ƙamshin ruwan da ke zuba acikin lambu. A daidai wannan lokacin, sai wani ruwa ya shigo ta tagar dake buɗe. Ɗaya daga cikin ɗiggen ruwan ya rikiɗe ya zama wata yarinya, tufafinta sai walwali yake kamar ruwa.

“Naji daɗin ganinki Larai!” dije ta faɗa da ƙarfi. Sai ta rungume yarinyar sannan ta juya ta kalli abokanta tace musu: “yanzu kun yarda dani?”
Yaran sai suka fara dariyar yaƙe, suna ta Magana a lokaci ɗaya, acikin wannan abin mamakin sai Duna ya fara tsalle yana haushi. “Wooh,wooh, wooh!”

Da surutun yayi yawa, Sani da Bala sai suka matso suma. “Ina kika je ne haka Larai?” Sani ya tambaya cikin ɗoki. “ina nan ina kulawa da Ruwa kamar yanda kika faɗa min.”

“aiki mai kyau!” cewar Larai. “ai naga ɓoyayyen ruwan, yanzu haka nazo ne in baku labari.”

“Ɓoyyen Ruwa! Menene shi?” Bala ya faɗa da qarfi.

“Nasan ko menene,” inji Bilki.

“Rufe mana baki, Bilki, kin ɗauka cewa kin san komi, bayan babu abinda kisa sani” dije ta faɗa.

“ina ganin wani ruwa ne na siddabaru wanda in aka sha ake ɓacewa.”

Jim kaɗan sai Audu yace. “wataƙila ruwan ɓoyayye ne ba’a ganin shi.”

Nan take kowa ya fara magana a lokaci guda har sai da Rabi tayi tsawa tace: “Kowa ya saurara, Larai zata yi magana!”

Har yanzu yaran basu samu nutsuwa ba. Ko me wannan ɓoyayyen ruwan yake nufi, Oho?

Larai ta ɗaura yatsanta akan laɓɓanta alamar kowa yayi shiru. “Ku saurari yanda ruwa ke sauka akan rufi, kun san ina ruwan yake tafiya?”

Kowa sai ya jingina da tagar ɗakin. Da alama dai ruwan yana sauka ne acikin lambun shaƙatawa. ɗigon ruwan kuma yana sauka ne akan rufin gidan, daga nan sai ya gangara zuwa cikin makwarara.

Gali, Wanda tuntuni yayi shiru baiyi magana ba, ya fara kwatanta abinda yake gani da faɗin cewa, “shuka da bishiyoyi suna amfani da wani ɓangare na ruwan, ragowar kuma sai ya shige cikin rafi.”

“Wannan gaskiya ne Gali, inji Larai. “shin kun tuna tsarin gudanar ruwa da aka koya muku a makaranta? Ruwan sama yana shiga cikin ƙasa har sai ya kai zuwa ga rafuka, kududdufai da kuma Tekuna. Idan rana ta daki ruwan tekun, sai ya zama tururi ya koma zuwa sararin samaniya, sai ya zama sabon hadari.”

Kowa ya kaɗa kanshi alamar ya yarda da wannan magana da larai tayi.

Larai ta cigaba da bayani, “wani daga cikin ruwan da ya shiga cikin ƙasa zai zauna acan wani waje da bama ganinshi”. Wanann shine ɓoyayyen ruwa. Muna kiranshi da sunan “Ruwan Ƙarsqashin Ƙasa.”

“Ahayye!!!, kamar tafkin linƙaya da aka ɓoye a ƙarƙashin ƙasa kenan?” Bala ya tambaya.

Nan take dije da bilki suka yi niyyar yin nutso da linƙaya har da wasan tsere acikin wannan ruwa na ƙarƙashin ƙasa.

Larai tayi dariya tace, “A’a, ruwan ƙarƙashin ƙasa ba tafkin linƙaya bane! Ruwa ne da yake maƙalewa da taruwa a ɗan qaramin sararin dake tsakanin ƙasa da kuma wajen da suka tsage a jikin duwatsu.”

Ɓangaren da ruwan ƙarƙashin ƙasa ke taruwa, shi ake cema “idon ruwa”

Sani nata faman kallon Na’urarsa mai ƙwaƙwalwa. “Ƙasar Brazil ce ke da mafi girman idon ruwa a duniya. Sune: Idon ruwan Guarani dake ƙasar Brazil, Argentina, Uruguay da kuma Paraguay, sai kuma idon ruwan Alter do Chão dake ɓangaren arewacin Brazil.”

Kowa ya gamsu da wannan bayanin kuma suka yarda cewa lallai abin birgewa ne idan suka samu ƙarin ilimi gameda ɓoyayyen ruwan da ke idanun ruwan ƙasar Brazil.

South America
Kudancin Amurka
Idon Ruwan
Alter do Chão
Aquifer Guarani
Idon Ruwan
Guarani
Brazil
Uruguay
Argentina
Paraguay

Nan take suka fara bincike, suka nemo taswirar idanun ruwan, sannan suka fahimci irin ƙasa da duwatsun dake haɗewa su zama idanun ruwa. Abinda basu fahimta ba sai su tambayi Larai.

“Larai kin taɓa rayuwa a idon ruwa kuwa?” dije ta tambaya.

“Eh, amma ba anan nake zama ba koda yaushe” Larai ta bada amsa, Nakan yi tafiya a hankali ta cikin idon ruwan har sai na dawo kan doron ƙasa, inda nakan ɗan zauna lokaci kaɗan acikin rafi, tafki ko Teku. daga nan sai na zama tururi na shige cikin sararin samaniya har sai na zama hadari. daga nan sai in sauko ƙasa a matsayin ruwan sama in ƙara nutsewa cikin ƙasa, kunga na ƙara zama ɓoyayyen ruwa kenan, Ni fa kun ganni nan, bana zama a waje daya!”

“To idan ko da yaushe ruwa na yawo acikin tsarinsa, me yasa muke buƙatar kareshi? Me yasa ake buƙatar masu tsaron ruwa?” bilki ta tambaya cikin ƙaguwa.

“Ruwa na iya gurɓacewa” inji Larai. “wajibine akan kowannenmu lura da wannan duniya da muke ciki da kuma bata kariya daidai ƙarfinmu, gurɓacewar kan tudu na iya shafar har cikin rafuka, tafki da manyan tekuna. gurɓacewar kan tudu na iya shafar har ruwan dake can ƙarƙashin ƙasa.”

“Kuma fa idan mutum ya sha gurɓataccen ruwa lallai zai kamu da rashin lafiya” inji Rabi. “Ni dai kam ina matuƙar son hana gurɓacewar ruwa kuma na zama mai tsaron ruwa!”

Larai tayi musu murmushi tace, “Ina fatan dukkanku zaku zama masu tsaron ruwa.”

Rabi da abokanta suka koyi yanda ake samo ruwa daga idon ruwa domin sha da kuma amfanin yau da kullum.

Iliya ya samo labari daga wasu masana kimiyyan ruwan ƙarƙashin ƙasa dake ƙasar Brazil. “ka haƙa rijiya sai ka saka famfo acikin rijiyar, wannan famfo zai zuƙo ruwan ƙarƙashin ƙasa zuwa kan tudu.”

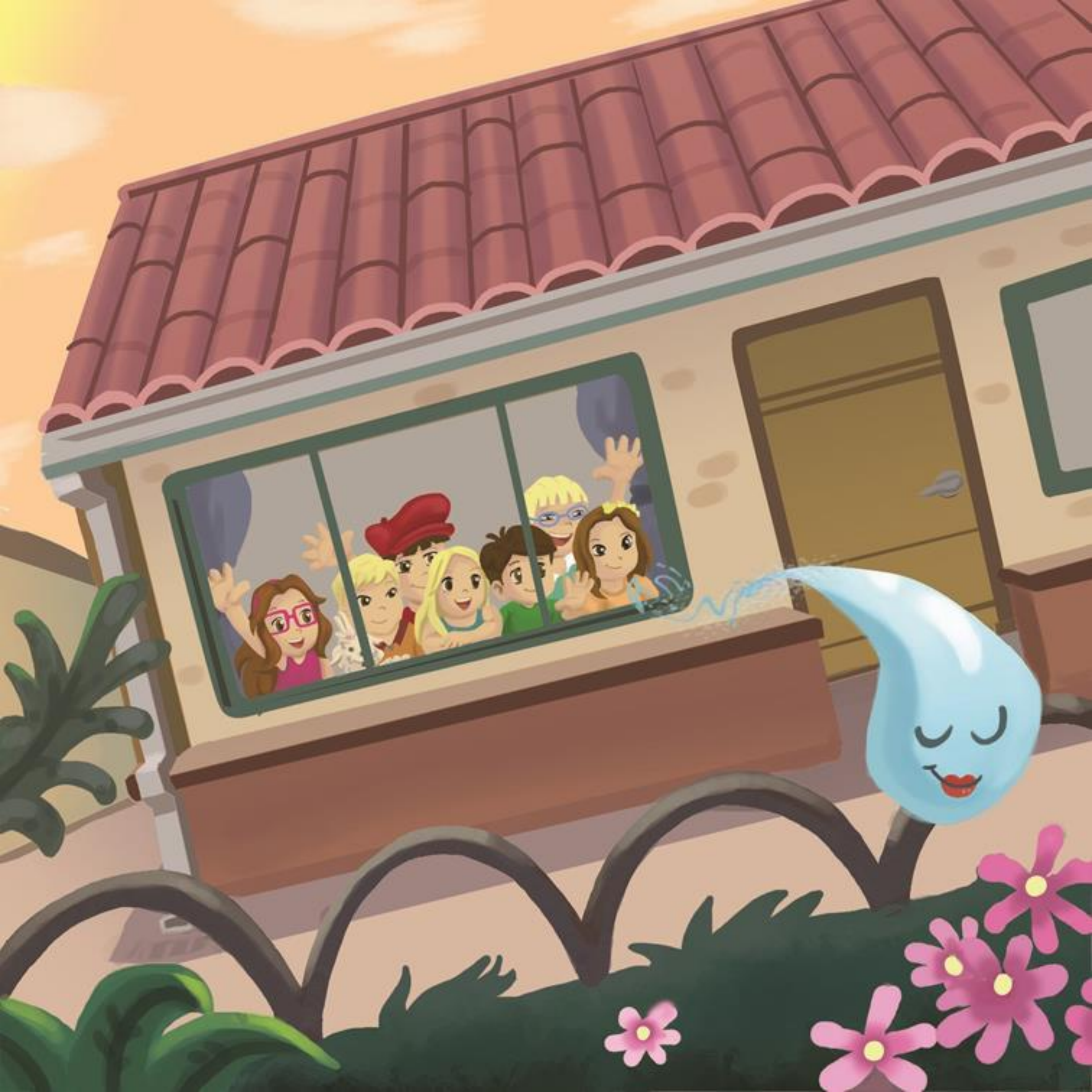
bilki da abba kuma suka cigaba da karatu kamar haka: “ba fa haƙa rijiyar bane kawai, a’a, domin kaucewa gurɓata idon ruwa, ƙwararrun mahaƙa, da masana kimiyyar ƙasa ne yakamata su haƙa rijiya.” Sai suka zana hoton rijiyar zamani domin wannan aikin gida na su.

Rabi tayi tunanin wani gwaji domin aikin su na gida. Sai ta ɗauki kofuna guda biyu na tangaran, ta cika ɗaya da ruwa ɗaya kuma da ƙasa, sai ta ɗauki kofin ruwan ta zuba acikin kofin ƙasar. Ta juya ta kalli kowa sannan tace, Kun gani! Haka idon ruwa yake, domin ruwa ne yake cika ƙananan saraarin dake tsakanin ƙasa, kamar dai yanda ruwannan ya cika wannan ƙasar, haka ma gurɓatattun abubuwa na iya cike wannan sararin.

Larai da sauran yaran suka tafa musu, "Aiki mai kyau Rabi, wannan misalin naki yayi daidai da yanda idon ruwa yake."

Bayan Rabi ta gama jawabi, sai Larai tace, “gaskiya naji daɗin yanda kuka fahimci tsarin gudanar ruwa, kuma kuka fahimci yanda nake rayuwa. Ruwa shine abokin rayuwa kuma kowa yana buƙatar sa. ku dinga kulawa da ruwan dake cikin sarari, da wanda ke cikin rafuka, tafki da kuma manyan tekuna, kai har ma da wanda ke ƙarƙashin ƙasa. idan kukayi haka, to tabbas zaku zama **masu tsaron ruwa**.”

Iliya yace ma Larai, “idan har na girma, zan dage wajen kare idanun ruwa. zan zama babban masanin kimiyyar ƙasa kuma zan kare ɓoyayyen ruwan ƙarƙashin ƙasa!”



Nan take kowa acikin ɗakin yayi alƙawarin zama mai bawa ruwa tsaro. Haka dai suka shafe wannan yinin suna ƙarashe aikin kimiyyar da aka basu a makaranta. suna murna da farin cikin samun damar bai wa sauran ‘yan ajin labari.

Bayan ruwa ya ɗauke, Larai tayi musu bankwana, ta fice ta cikin taga, sannan ta haɗu da sauran ɗiggen ruwa suka wuce zuwa cigaba da gudanar da tsarin ruwa. Ta kuma yi musu alƙawarin sake dawowa watarana domin basu wasu labaran tafiyarta zuwa wasu sassa na duniya

Dr. Luciana Cordeiro de Souza Fernandes farfesa ce a fannin shari'a dake makarantar kimiyya a jami'ar Campinas, da kuma karatun digiri na biyu a shirin ilimi da tarihi na kimiyyar qasa dake cibiyar ilimin kimiyyar qasa na jami'ar Jihar Campinas dake Brazil. Ita xin lauya ce kuma mai bada shawarwari akan lamuran muhalli, sannan kuma jigo ce a qungiyar malamai masana shari'ar muhalli ta qasar Brazil wato (APRODAB).

Ta rubuta littattafai da dama, ta kuma rubuta wasu surori a manayan mujallun qasar da kuma qetare. Ta wakilci qasar brazil a matsayin masaniyar shari'a a shirin Guarani Aquifer System Project (PSAG) a Montevideo dake qasar Uruguay.

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THE GROUNDWATER PROJECT

Aliyu Aliyu haifaffen Nijeriya ne kuma ɗalibine dake karantar Mechanical Engineering Sannan ɗaya ne daga cikin memba na kwamitin kula da sadarwa da haɗin guiwa na ƙungiyar matasa dake kula da ruwan ƙarƙashin ƙasa. Ya kasance matashi mai hazaƙa da sadaukar da kansa wajen hidima ga al'umma. Bayan kasancewarsa matashi mai hazaƙa, ya kasance mai rajin kare haƙƙin bil'adama kuma mai wayar da kai musamman akan burika cigaba masu ɗorewa!

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