**How come that the rain water is fresh water?**

The idea first was brought up by Cassandra at the beginning of the class but was not followed up until Daniel (who by the way was sitting at the same table as Cassandra) brought it up around 25 minutes later.

***Cassandra's original question:***

[00:11:02.04]Teacher: do you agree, cassandra do you agree with brandon and trevor that the sirt, i'm sorry that the dirt and the salt prevented or slowed down, would that be a way to, slowed down-

[00:11:17.10]Trevor: Yeah that's better

Teacher: evaporation

[00:11:21.28]Cassandra: yes and the also, umm once i was little and i tasted water and it didn't have salt in it so i was wondering if it goes in to, if it rains and it goes into the ocean, how, how does it become salt water?

[00:11:38.28]Joey: it was salt water, wasn't it salt water

Cassandra: no it wasn't,--?-- i've tasted rain before

[00:11:45.29]kids murmuring while teacher writes on board

[00:11:57.06]Teacher: we'll get back to that one.

***Intense exchange: Daniel-CM (idea: how does sea water from ocean becomes fresh water in rain? [same as Cassandra's question at*** [00:11:21.28]***)***

[00:35:50.00]

Teacher: so daniel i know you're just coming back we go ahead and take a minute daniel go ahead and look

Daniel: I already did a long time ago

Teacher: oh ok excellent

Daniel: and i labeled the parts

[00:35:59.21]

Teacher: oh ok so what

Daniel: I already did

Teacher: so that's what the water, so can you tell me how the water gets from the cloud?

[00:36:04.16]

Daniel: i asked that question right here

Teacher: how do- what happened? that's what i want you to help me, what happened? how does the water get from the container to the cloud? how does it get there? i wanna see that,

Daniel: That;s not my question

Teacher: that's what I wanna know too. how did the water get from here to the cloud to become the rain.

[00:36:23.11]

Daniel: That's not my question

Teacher: your question is 'what happened'

Daniel: i know.

Teacher: mm hmm

[00:36:28.25]

Daniel: what i wanted to say was that's the sea,

Teacher: says mm hmm to another student

Daniel continues: that's the water vapor, that's the cloud. how does wa how does sea salt water turn into fresh water falling down as rain, that's what-

Teacher: how do you know its fresh water

Daniel: because i drank it before

Teacher: oh you dru, you know what, go ask, go talk to cassandra right now, go talk to cassandra about that.

***Daniel-Cassandra-CM exchange***

-all this time, kids are drawing, muttering-

[00:37:18.10]Daniel to Cassandra:---?--- I mean how does sea water goes into the clouds and turns into fresh water in the rain? that's my question

Teacher to cassandra and daniel: I wanna talk about that one next, that's an interesting question

Cassandra: where's it go, um i don't know, i don't know that

Teacher: could we find out?

Daniel: i just wanna know

Teacher: lets try and

Daniel: what happens in the cloud

Teacher: let's try and find out.

Cassandra: k

***Daniel and Cassandra's question made public***

[00:38:17.13]Teacher: ok, jared, we have a new question that's being asked by cassandra and by daniel. daniel could you ask jared that question and jared could you change colors? put it in black for me and i want you to write down daniel's question. ok? add daniel's question to our list today.

Daniel: um how does sea water turn how does sea water in the clouds turn to rain fresh water rain? how does salt water, salty sea water in the clouds turn to rain that's fresh?

Teacher: could you write that down?

Daniel: -- know what happened in the clouds

Teacher: Trustin did you hear the question

( some kids call out 'bye shawn')

Teacher: ok. how does salt water or sea water become fresh water as rain? ilana you have you have an idea?

[00:39:35.28]I: maybe the clouds could filter the water.

***Cole's challenging the idea that salt evaporates.***

Teacher: clouds filter the water. what do you think of ilana's idea? Cole, what do you think of that idea?

Cole:-----the salt doesn't go to the cloud to begin with

[00:39:55.16] Teacher: ooo, did you, did you hear him? cole, i need you to use that big voice i hear you use a bit ago, i need you guys sit down. guys, we're in the middle of science not in the middle of s- sit. cole could you say it one more time? cause ilana thinks that maybe the salt filters it.

Cole: i don't even think the salt goes into the rain.

Teacher: why?

Cole: because , the salt is heavier than the water

Teacher: and?

Cole: pause. and the sun can't melt the salt and heat the salt so it can't turn it into Teacher: so in wa in the water vapor on jared's piece, the salt does not go to the cloud?

cole shakes his head.

Teacher: why do you think that?

Cole: the only reason the water goes there is because the sun heats the water and becomes water vapor

Teacher: and salt can't become . . .?

Cole: water vapor.

Teacher: why? how do you know that?

Cole: cause its not, the sun doesn't have enough heat (?)

Teacher: to melt the salt?

Cole: cole nods head.

[00:41:33.06]Teacher: what d'you think? cassandra what do you think?

Cassandra: my question is sorta like that, but mine was um when it rains, how does the how does the fresh water from the salt, turn into salt water in the ocean?

Teacher: and how do you know that its fresh water?

Cassandra: becaues i've tasted it before

Teacher: dana, do you agree that its fresh water from the rain?   
Daniel: yeah, i tasted it before.

Teacher: You've tasted it as well? Jared, do you agree?

[00:42:06.07] jared: i agree because once i had a cup i put salt in it, i don;t know why it did this, but when it all evaporated the water was gone but the salt was on the bottom of the cup

Teacher: so you agree with cole then that the salt doesn't evaporate.

jared nods head

[00:42:26.11]Teacher: you guys you guys agree with jared's idea? or you guys still with ilana's idea and the cloud filters it?

Joey: i i wanna try that when i get home.

Teacher: ahh joey wants to try that when he gets home. that's an interesting idea. Katie.

***Samers-Katie exchange facilitated by CM (Katie challenging the idea that the rain water is fresh)***

[00:42:41.18] Katie: i don' think the rain is ocean water or anything, i think its like dirty tap water.

Teacher: dirty tap water? why do you think its dirty tap water?

Another kid: sewer water

Katie: cause its not normal the color, its not the normal color of water, it's like.

Samers: its white its clear, what's not normal anbout that?

another kid: its blue!

someone else: water's not blue unless its ...

[00:43:02.09]Samers: katie, i have a question for you. have you ever seen wa- ok- when wa-

lots of kids talking,

Teacher: whoa whoa, Samers's got the floor. eyes here.

Sa: when rain's coming down, ok, you see you can see through the rain and that's the way you can see you can see through water ok?

Katie: ok

Samers: ok? yes? and that's the same color! rain's the same color as water, so why-

Katie: its dirty

Samers: no how do you now its dirty?

kids start talking.

Teacher: whoa whoa whoa, katie gets the katie gets to respond. alex let her respond.

Katie: ok, wait what are we doing?

Samers:- you're responding.

[00:43:44.03]Teacher: how do you think the rain water looks different than the tap water?

Katie: cause my mom left a bucket out and it was a clear bucket and then when the it rained and the water went in it and it was dirty.

Teacher: the water was dirty. how do you think, do you have a reason that the water , why do you think the water's dirty?

Katie: cause well i've tried it and it doesnt taste good and its well not as clear as water is

Teacher: well how did the water, how did the water get dirty?

Katie: umm i don't know

Teacher: was it was it dirty in the cloud?

Katie: i don't know

Teacher: don't know, where do you think it happened?

Another kid: it got dirty from the trees

Katie: the air is dirty i guess

Teacher: the air is dirty with what?

Katie: pollution.

Samers: yeah

Teacher to Samers: what kinda pollution?

Sa: with air pollution, with with sewer pollution

Teacher: sewer pollution?

another kid: dirt

Teacher: dirt

[00:44:48.05]Teacher: cole. I really appreciate how cole has got his hand raised up, he wants to participate we needa ha give him the attention, alex i'm gonna come back to you in just a minute.

Cole: i think the water got dirty because its not just raining, its also windy, so the wind blows dirt into the water.

Teacher: in, into the water in the air or the water in her bucket?

Cole: in the bucket

[00:45:13.18]Teacher: in the bucket? ok. alex what do you think?

Alex: um i think that the water um that the rain water is dirty.

Teacher: you think the rainwater itself was dirty? so in the cloud it was dirty?

Alex: uh -shrugs-

[00:45:23.23]Teacher: matt:

Matt: i think rain water is dirtier than regular water bcause planes go in clouds, it must be dirty cause planes leave a bunch a bunch of chemicals behind.

Teacher: from what?

Matt: from the gas from their engines

Teacher: From their engines and the gas?

Matt: from their wings

[00:45:50.26]Teacher: ok. so so what sort of idea then do you know have about the water that's in the cloud? how does it get there?

Brook: i think it evaporates and i also have something to say about the rain. i don't think its dirty because um the puddle it kinda, you know like the sidewalk is dirty. the the puddle can get di the water can get dirty cause the f the the floor or the street or something could be dirty so it like kinda gets dirty from the street.