Daylene Long ([00:09](https://www.rev.com/transcript-editor/shared/r5UuM_KkfYxcfqxFk1dSFGTDVgMJXYkBjAB1_Dk2-yXHGG-mt7p-GtPqYc9jhIAZuiwmSv4_oVT6LZ3tN-IhtBT-Wm4?loadFrom=DocumentDeeplink&ts=9.18)):

Kim, Sean is ready to join us, so I'm going to go ahead and let him in. The other thing too is that if for some reason you are uncertain as to whether or not the recording will work on the one this afternoon, reschedule them. If you're confident that you can do it and record to cloud, then you're good. Okay?

Kimberly Herder ([00:30](https://www.rev.com/transcript-editor/shared/MdUurLjzRVKCDmwR80ZYde3Q666dVl4mJkBGiAwEUc6jUj3bDmq80J9cHgq0VD4llh7UImzKpeMWK4JeQR34SnK4vUY?loadFrom=DocumentDeeplink&ts=30.84)):

Yep. So I'm

Daylene Long ([00:31](https://www.rev.com/transcript-editor/shared/XRt8bPQBVhb1ZnX25-i784YX0xDsXflhyrinPg6FGiJ-P8bNEz0I7yCRCTqs_1A2bi6rcKVTPMAnFL1RrQLc0NR0lLw?loadFrom=DocumentDeeplink&ts=31.44)):

Going to have to leave after this call, but we might even try to take admit to test whether or not you can log into Zoom as me. Okay. Ready?

Kimberly Herder ([00:45](https://www.rev.com/transcript-editor/shared/o29kOO32rj1tWXMw6gXqb09AI8ky_uoW8LG8KdrYAHciF3Ni1lsSoT5QAh_C2xOgOdRzkDikxnEQnLoPFlpGo_LyR7s?loadFrom=DocumentDeeplink&ts=45.27)):

Yes. Hi, Sean Taylor? Yes. Hi, I'm Kim Herder and I'm with Daylene Long Catapult X. And hi, very glad that you're with us today and that you agreed to be part of this process, this interview, Daylene is the lead researcher on this project, and I'm going to ask you in a minute to tell us about yourself and your school. I'm going to jump off the screen and handle the technical side from the back, but I'll be present in Daylene. It'll be the one you're conversing during the interview.

Erin/Sean ([01:44](https://www.rev.com/transcript-editor/shared/uTrl7vKO8gZyguazt91P4X7t6kMFFlFTsMkPLrIrR8jtzmVe7k4hIjstlr0eBX-Nur2-Hq5vxVYjA2gb0WWXqNOw8ns?loadFrom=DocumentDeeplink&ts=104.19)):

Okay?

Kimberly Herder ([01:45](https://www.rev.com/transcript-editor/shared/Gf58EhdA6A8gptB6a-85X7vkGkMzRuxKiL1eQAjl1vJKJSyCd6wjGhKPTVRwIA8nXLxCz3ThU1QjRL3Uhs5AJ7ELixk?loadFrom=DocumentDeeplink&ts=105.72)):

Okay. So yes, please tell us about yourself.

Erin/Sean ([01:48](https://www.rev.com/transcript-editor/shared/w0lQ51TN8DN9xlv2croXEG9RI9CzA-hvA_Ev15Y0BIYNn77GnzkcLgnrqNOFC368FpVmlODMtxIe89TBJK-33rgY1RI?loadFrom=DocumentDeeplink&ts=108.87)):

Okay. My name's Sean Taylor. I teach at Sierra High School. We're in San Bernardino, California. California, yeah, kind of a lower income, heavy Hispanic demographics. We're at a continuation high school, so our students are credit deficient when they come to us for various reasons. So our kids are typically with us for six weeks to try to catch up on credits as opposed to the normal 18. We've been focusing on our school a little bit more for skill development a lot, especially our science classes, and we're trying to push claim evidence and reasoning for the most part. I currently teach biology mostly, but I've been doing a little bit of coding, a little bit of forensic science from here and there, but our school offers physical science, health, environmental, and it changes from time to time, but that's typically what we do here, and I've been here since 2009.

Daylene Long ([02:57](https://www.rev.com/transcript-editor/shared/fBGaKYXdxLUsSBHa_LCm1b5BBKeywOY-KyYgBaseku58ghq4eqIWZNSukRk8rFwv_yXEsmmsw83xhz1M3zrSkEl6HnY?loadFrom=DocumentDeeplink&ts=177.21)):

Okay. Tell me how it works then if you've only have six weeks with these students, and I would imagine that, I'm assuming that they're not all credit deficient in the same areas or in the same learning skill sets. So how does that work?

Erin/Sean ([03:18](https://www.rev.com/transcript-editor/shared/JdNujFKGeK95s56qU7qUlo58er10VkHSrPuhqJNmu2oP7-ZRVR-Ohnnn7EKL3O7Hlrr1Bgf5qu1Nqqc_vQlub-nkzpg?loadFrom=DocumentDeeplink&ts=198.76)):

We kind of have a little bit of autonomy from our district, from our site admin to kind of go over essential standards for the most part. So we followed a little bit what the district's curriculum is, but we kind of came up with the other continuation that district kind of mapping out the essential skills and the essential standards and content we want the kids to reach. But we have a lot of flexibility where we're not necessarily following the textbook chapter one through 12. We pretty much can pick and choose what we want. We have six blocks throughout the year, and I'll do a part and B of a course three times throughout the year and every time it kind of changes for me personally just based on, hey, this worked, this didn't, or maybe I want to tackle a different format for the curriculum versus what I have been doing. We get kids who also repeat the class, unfortunately with us because attendance or work habits or whatnot. So I don't know if that's answering your question per se, but we follow a textbook, we follow the district pacing guide and kind of create our own, and we kind of collaborated with the auto continuation school.

Daylene Long ([04:39](https://www.rev.com/transcript-editor/shared/LsQ7UXf73VsjHPqbxgw8eV8Ff_1W5ZuSyYsG0jzNbnIiOIjxCNx1XOgZLsy7aun38u2rxRRdGrPhMbharD-_scN4OaU?loadFrom=DocumentDeeplink&ts=279.67)):

Okay, that's really helpful. That helps me kind of understand what you're dealing with and that what I'm hearing is that you need to be maybe even more flexible than a lot of teachers who teach more traditional biology courses coming in and trying to really see where it is that they need skills.

Erin/Sean ([05:02](https://www.rev.com/transcript-editor/shared/G5eFHXBhyTh9RF2yslOLyMcQFB1reGfluZhC7ygKTt4ZSfHgSC2UcDC7VImD0zfLc9ylXMHfJ0gsZYt_4fijf4SCbRU?loadFrom=DocumentDeeplink&ts=302.02)):

And at the end of the day, our school kind of has, I dunno, a vision graphic. It's not necessarily always academic based. I mean, our kids have a lot of gaps in all aspects of their lives.

Daylene Long ([05:13](https://www.rev.com/transcript-editor/shared/deCt9gYPvT8yUBld-SyhdOH3KtoHPu_kRzijauluEnbwSySrLOv9Cp5EBqBz44-1T66rGIW3DdRE1DE5DhgvLjeJK14?loadFrom=DocumentDeeplink&ts=313.84)):

So we've worked

Erin/Sean ([05:14](https://www.rev.com/transcript-editor/shared/p-oAxd8AXbST9CwFOwJFB95M6s0jW90OrAlY0ohPt9JK3d16YWSyJPEteQisWUSDDmP7Kk6svR8D6P7l3YsbEySaV8A?loadFrom=DocumentDeeplink&ts=314.5)):

On mental, emotional and just building relationships I think is our number one priority I think with our kids, even before the content. And unfortunately no student probably gets same, does the same assignments for instance, or does this same curriculum for, I mean, I think we almost have to individualize what we give to each kid from time to time and unfortunately some don't find success with that or we don't find where we need to reach that kid specifically.

Daylene Long ([05:48](https://www.rev.com/transcript-editor/shared/JgwO0dmhmk5fkJ82ORerIOj4kIraYq3qUZNuon0rymWNNSSQ-4ESPopoKr0aTSkO243HO0NWyUAunPuzZwH1RHBe45g?loadFrom=DocumentDeeplink&ts=348.07)):

Yeah, yeah, really interesting. I skipped the part where I tell you kind of all of the overview stuff for that. So I'm going to go back to I was just fascinated with the way that your school works and really, I mean, you're teaching a very vulnerable population and that's really important, so thank you so much for doing that. But let me give you an overview of what we're doing today. So one, we are recording, but it's only for note taking purposes. You're not going to end up on YouTube, I won't ask you to do a TikTok dance, anything like that. So it's really just so I can get the notes. And our main goal is to kind of understand, and you're in a unique situation, how vendors can make it better for you as a teacher, better for students. What's missing out there? You'll have a chance, especially at the end, to kind of talk directly to the product development team and say, oh, I wish I had this or I wish I had that. And there've been a couple of people who have followed up afterwards in a few days where they're like, you know what? That was a really good opportunity, but I didn't have the chance to think about it. Now that I've thought about it, they'll send me an idea.

Daylene Long ([07:13](https://www.rev.com/transcript-editor/shared/wgNujlLOwy4EFYMg2WVnA10nM2AFAqs3hmOmoHSjbOZFBc5DY8sHOBBt8MKpZUzjG-_NO8JGk8gOaSzEuvKhZd8nLtU?loadFrom=DocumentDeeplink&ts=433.88)):

So you will see that we ask a lot of what, why and who questions. We're really trying to understand when you buy life science materials for your class, what that looks like for you. And we want to hear the stories of things that particularly delighted you, things that maybe disappointed you because we're trying to make it all better. There's no right or wrong answers, and for some educators it helps to think of Kim and I as filming a documentary and that's why we ask all the questions along the way. We want to get a full picture of the story for what's working, what's not working, and those kinds of things. That's my overview. You had mentioned in the survey part of this that you had bought materials for the life sciences in the last six months or so.

Erin/Sean ([08:15](https://www.rev.com/transcript-editor/shared/ceYPTzUyxfIG096bPZi96j_H7saCL9_e2oj5-TT_6fFRnFmCuQdWLPMp5SMsQgYf81jV7opCG4X_2jkiim9VCy01yd4?loadFrom=DocumentDeeplink&ts=495.44)):

Yeah, I'm department chair here, so we typically have the options. Let's buy, let's try something. Like I said, things don't work or the approach doesn't work with students. It's almost like, well, let's find better ways to buy more hands-on material with our kids. We don't have a lab here per se, so we're kind of limited with the safety aspect I should say,

Daylene Long ([08:39](https://www.rev.com/transcript-editor/shared/EDeIdSorCmTsh7eIVheLWwmdDq2qW0fyASXWANFMPSqMPUru_YPdRwMlf_HBOBdHmweDeQ_1ukoTjgtTfbhYDQsO04M?loadFrom=DocumentDeeplink&ts=519.83)):

In terms

Erin/Sean ([08:40](https://www.rev.com/transcript-editor/shared/BaJ5hhruOCdzqrfwxSr2r1dlkts9eSDoVZ3HrrBIj_3bhMCN7IsNJ7E2T_JXDdW2MuamOO7B29PVp2la5iTAWNQKGTQ?loadFrom=DocumentDeeplink&ts=520.16)):

Of chemical disposal and safety things in place. But yeah, we pretty much purchased probably at least twice a year and I kind of have an autonomy to almost to whatever I want to be honest.

Daylene Long ([08:54](https://www.rev.com/transcript-editor/shared/7hZgzUBQEFqlDIQh5xFm2W79vSwbhDWqt6jHc3rvckq09de8m17w8FvLmozaIvZRhBjb6A2dKy6hKGcC8YCc5ct1oUs?loadFrom=DocumentDeeplink&ts=534.09)):

Okay. So twice a year, what months are those typically in?

Erin/Sean ([09:01](https://www.rev.com/transcript-editor/shared/bW1mcEBBNPvATijGqilvWLuw1U23d5M0bVs4jVj-HQe1uvhtetlGI4IKew9tZnnypneMjTkVxNqPzaKgNAri-HYtzQY?loadFrom=DocumentDeeplink&ts=541.92)):

There really is no rhyme or reason. It's almost like, oh, I saw this or I, it usually happens when someone sends their product brochure and I go flip through it. I'm like, maybe we should try this. And I go, Hey, can I buy this? And I get glued and yeah. Do you

Daylene Long ([09:19](https://www.rev.com/transcript-editor/shared/MvBOhKDSoAG5xe79eA19-3uMIBe6Mt1Q1OLCiQVSlGtzjvlcts3TarkehQZJyGEh_haKt_KxWUKn_iBu_z3Ha_HItwc?loadFrom=DocumentDeeplink&ts=559.08)):

Get those product brochure in the mail or by email or how do you get those? They're

Erin/Sean ([09:23](https://www.rev.com/transcript-editor/shared/TcZEu5a2o69lQ2T-w-R4PXv8XqzPdpQmm8UzoBxr7rAzqE9wa8NPLa8SJmE8MIgBB-K7UmfOvExTiUb903sW7XgE1-k?loadFrom=DocumentDeeplink&ts=563.13)):

Usually sent to the site and they just throw it in my box. They're

Daylene Long ([09:28](https://www.rev.com/transcript-editor/shared/ftX-XnpZnw0224bgN9yRXLTvQYSg9RdCCOXRGV4i3icpOexx91TFLmyuGJ9ImK8afn6AzFmLMRy3Gl83NiocIyYnaD0?loadFrom=DocumentDeeplink&ts=568.39)):

Usually sent to the science department or something like that. And they put it in your box?

Erin/Sean ([09:33](https://www.rev.com/transcript-editor/shared/qlSLDUOnnOnK_o8NCTMW7G1eFEpqr2UDuUPDP4esed5hOL0AwCesM5I9TRheQoQIIquTLiwbJ_w3B599LDVSD_k9c4A?loadFrom=DocumentDeeplink&ts=573)):

Yeah.

Daylene Long ([09:34](https://www.rev.com/transcript-editor/shared/feYrf7Lq8OVwSRQCNMi9UuHa6mxDu0IzcR-yTvBpLdFpl71MBYtuzA_Lb4mONcAwsPUfYP9a21aPu7vv4zmbVXt1Kvw?loadFrom=DocumentDeeplink&ts=574.14)):

Okay. And what are the kinds of things that have been catching your eye lately then when those flyers come in? And I will also ask too, is there a particular time of year that you like getting those? I

Erin/Sean ([09:49](https://www.rev.com/transcript-editor/shared/qc7fEVEFp95TiLTC6Vd9Vy9YxuCCEOsLdDV02i8h_4uiIy0MJ1Kd0jEIyWQNWegwUjD6WcCNZa53nxGwdm7-ljz_Sq4?loadFrom=DocumentDeeplink&ts=589.53)):

Would probably say the beginning of the school year and the beginning of January and then that July august time, just so you order it and get it for the year for the most part. Sometimes it's at the end of the year because they have to spend the money or it goes away. So usually that's also good the end of the school

Daylene Long ([10:12](https://www.rev.com/transcript-editor/shared/pyDQMDkiVQUqVet8GAt1fuTwSzK1f27UWkzRbqBozGEelGPU0hfjuGzQF6kZna9ZkzswqVarmWx_9ado6ZUJNWd7oHY?loadFrom=DocumentDeeplink&ts=612.4)):

Year

Erin/Sean ([10:12](https://www.rev.com/transcript-editor/shared/j2DrhtzOWrOk2QZ3TCJrjY2weKyCN1r-ck7l4LWmD20QEE9JY1N_-2YWgY1ZgkGSBoBwUKjJ2aa-ZkNj7Vc88h81Wrc?loadFrom=DocumentDeeplink&ts=612.51)):

Because they're like, oh wait, we have money, we have to spend it. So you kind of have a little bit more. Yeah, it's like a budget thing.

Daylene Long ([10:19](https://www.rev.com/transcript-editor/shared/KFBQtdoL03YB7dU51OyJj3bHxczJZgTXZ5-MQUafk07UaM9V3ewJAjRUa74gFIF_UY6SDrSOIE1J2wh1PNyK1uDwaj4?loadFrom=DocumentDeeplink&ts=619.32)):

Okay. So think back then a little bit to the last order that you placed. What kind of prompted your desire to buy it and then who did you buy from? Tell me just kind of the story of the last purchase you made.

Erin/Sean ([10:36](https://www.rev.com/transcript-editor/shared/r8kQrwNp6-FSbkXVkaJm4GWTDs6X2kI4OS0Y15zCKsFBYC1dYFep9Jo3UOB76ByH5d2vKEFVNN-Wn0LxVoh4NzzxiTI?loadFrom=DocumentDeeplink&ts=636.51)):

Okay. We went to the NSTA conference in Atlanta, when was it? March, April. So you get to see the vendors, get to participate in some of their breakout rooms. So there was a lot of things I saw there, especially with PCR and DNA technology, I personally enjoy that and I see a lot of value for the students to learn it and

Daylene Long ([11:01](https://www.rev.com/transcript-editor/shared/lDl2ny7BRnzCqfLW2aB0zWOx3Xz04S0sx6_a2DkbGE-9rOf1SpiHb0IGO9ooJ0r3Q9icQ7iGtkdr5KD5D_nFxF40s6k?loadFrom=DocumentDeeplink&ts=661.5)):

See

Erin/Sean ([11:01](https://www.rev.com/transcript-editor/shared/Pa10GBLSjLn9jUYDIH-pYRCpkABpalVleLyoSG6XnixsyTzPJQTXVBqURcRzsSUaHpUUxXp9QydRrZ2VQ8g0GBgYs34?loadFrom=DocumentDeeplink&ts=661.62)):

How it works in the real world with disease and things. We're actually doing same thing too. The COVID had a lot of information at that conference just going into the, so we were trying to look at buying many PCR machines. So the one that stepped out was mini PCR. So I talked to the vendor and told her about our school and our students and their needs and purchased a couple of their machines of their PCR machines, their DNA fingerprinted machines, couple of their lab kits.

Erin/Sean ([11:39](https://www.rev.com/transcript-editor/shared/Fh8_ooHazaACjNkjL_jjPnEeMUmSWN-x8wOCO46cSoNvmCnOC6sz-Kl5EQEAmRaUrZgN69PjSjmTObmL8nMlnUXEGG8?loadFrom=DocumentDeeplink&ts=699.96)):

And again, my intention was to try to get kids some skill. I can pipette or I can test my own DNA because our students at the end of the day, their motivation level is ground zero unfortunately, especially with science, whether it's academic or motivation or what's this have to do with me, why do I need to learn about population graphs and DNA structure, things that we teach. So I was almost thinking this is a real world happening day going into crispr, going into real world technology with the science for learning that will and is affecting their lives today. So that's why I went with that mini PCR to start. Has

Daylene Long ([12:28](https://www.rev.com/transcript-editor/shared/1cCuyYfVzyC1P6aYqg4hQuEF1Ki1C6WuCAHsJsMCEpPbjXzm4cWfjLb-QhHyZrazcKfslizCRtcThYAY-Rfu7F7-dig?loadFrom=DocumentDeeplink&ts=748.97)):

It really connected to their lives?

Erin/Sean ([12:31](https://www.rev.com/transcript-editor/shared/Fgc_zha4n8clNIe_61l_U2KvTggcvZCQNnnBPthZUo7noO84VXedTHQta7BzTAktBhTik3bahtG54qT9792mY1DkvJo?loadFrom=DocumentDeeplink&ts=751.15)):

I feel like it's modern application of the science we're learning as opposed to our kids are very trained into copy a textbook, Google an answer, and we want to try to teach kids a little bit more of being curious and problem solving. And at the end of the day, that's what I think science is at the end of the days, being curious about the world around you and finding some way to have kids curious about the world around them is I think my number one goal as opposed to you can recite facts out of a textbook. We have AI to do that now. We have Google to do that now. I mean we need thinkers not So I'd say that was the last purchase, kind of a big one. And then I've been flipping through just some catalogs recently just to go, Hey, because halfway through the school year now, so this is our last day before winter break and starting a new school, kind of a new block second half of the year, I want to find this didn't work, this approach was not good. I need to be more hands-on. So that's why I was kind of flipping through. But one I got recently from NASCO because I haven't really been liking the ones I have been purchasing prior to

Daylene Long ([13:48](https://www.rev.com/transcript-editor/shared/suJcRnx_ujpFPiKRrwiozfESXpyZs1AiXN7lMmhS12You_-57uR7C47BWJ0rSuFpJZT7l3BqBQXtrBKDLwg3hSac_Bg?loadFrom=DocumentDeeplink&ts=828.88)):

These

Erin/Sean ([13:49](https://www.rev.com/transcript-editor/shared/SXvrfKUYCxaRcVAwjP0j0Gjcffuesi-B23l_F4Ifv7tb2Q7ecaCZtvUfjK6LlwdHfobFbSrsEGblB49yp_Xwp_8Cl2Y?loadFrom=DocumentDeeplink&ts=829.12)):

Kit.

Daylene Long ([13:51](https://www.rev.com/transcript-editor/shared/-jOugNvwlAfrhS9k4wrvrFkQcPSPQ7Dr5KAc-3jrJ1bvqPPU9Jd5cw11HHgAvXdOj2a6ZOA6Snuy-WVK49aLyVKiqC8?loadFrom=DocumentDeeplink&ts=831.73)):

And what were you purchasing prior to it that you didn't really like? I

Erin/Sean ([13:56](https://www.rev.com/transcript-editor/shared/chgBqJU0b2x3MWn4SL_q1Pp4FzXtx0VetG-_LzJHqxUNOJ2Gsm97MaEzIjoVZmkhutFhsYVq6Rt-FQPh-i91z_AV20I?loadFrom=DocumentDeeplink&ts=836.23)):

Think I've been doing a lot of flin just because easy and I feel like nothing quite meets what I'm teaching specifically. I don't feel like what they offer is necessarily following the NGSS or following the standards especially. I think my kids need a lot more background knowledge before some of the, so I've never really been, we have big topics for our classes. I don't think there's nothing really directly meeting those topics, which is weird to me. I feel like the textbooks are all kind of follow that same model of the Living Earth model. For biology specifically,

Daylene Long ([14:41](https://www.rev.com/transcript-editor/shared/HPtYfJ6T45A_8kBhFvCU2R4fBMlesw1qbaM21CcbwtEy5N2z7K_hMZ9jNq85SgOB8xugj4XVkeeJSORZ-1RJegvSlR0?loadFrom=DocumentDeeplink&ts=881.35)):

What are some of those big topics that you're wanting to teach that you're not necessarily finding kids for?

Erin/Sean ([14:47](https://www.rev.com/transcript-editor/shared/nk_MUzRJRvq028u1c_oh5-8n2ufiJbLIH1hKiBH-nlPb-64ZFzKA53a-abQ-oPUm8MRinz_LBPJhNUuGV63QMipZdjI?loadFrom=DocumentDeeplink&ts=887.92)):

Alright, for instance, we do a lot with population caring capacity. I don't think I've found anything on caring capacity anywhere that's really valuable

Daylene Long ([14:59](https://www.rev.com/transcript-editor/shared/WF2JZBfVfH4NfNWYhddxJqJ8KY2cy6JY2giO4ZrkMjYKoCbv7Yuow2DcEnE_bARueqtAFu2pqzo8OtjfeOVN_49-_bA?loadFrom=DocumentDeeplink&ts=899.99)):

Capacity.

Erin/Sean ([15:01](https://www.rev.com/transcript-editor/shared/vTajJxYBt2MCGqh0gIgNXBfgi2wg59qlZGZgvvP3sTPRkd2jJeIErlla5qp4iUJdVUwdCy5JvQnqcZgz8DzmJJvqbr4?loadFrom=DocumentDeeplink&ts=901.55)):

I'm sorry,

Daylene Long ([15:02](https://www.rev.com/transcript-editor/shared/HmWuf-5B63PMNFKQM58xDrvEWj7VY5qPEu7ZcPYQ3dfErPLSp7LoOdsRKKBuRTDpBC7py3ECfk6nGK7l2VjNnJsxFQA?loadFrom=DocumentDeeplink&ts=902.69)):

On what kind of capacity?

Erin/Sean ([15:04](https://www.rev.com/transcript-editor/shared/5ERo6cgBtzbMeE-FtHthej2aAagnfUuA5Um4fwhVblK0d22fQxAqGjhn-vv0GLGoRgvOA54n5aqyAkOLdX4GqBEh-TA?loadFrom=DocumentDeeplink&ts=904.46)):

Carrying capacity like maximum ecosystem can support what causes populations to rise and fall, predator parade relationships, resource management. So I try to introduce that topic with like, Hey, is the earth going to hit? Are we overpopulated as people? Are we going to have resource management issues? So there's a lot of graphing involved with that and I think that's a big topic for the ecology portion of our course for Bio A is this idea of carrying capacity building models, representing that which is not good for students, a not of graphing, and what does that graph mean? So I'd say that's a big topic. I'm not really finding anything very useful for, we try to do energy movement through ecosystems like food webs. And I know my roommate, we have an A m PMM session, so I have a roommate, he teaches environmental science, so he does a little bit of that as well. I would even say the DNA model stuff is not really, I never really found anything that's quite, here's the base pairing rules. How does this produce a protein? How does this protein, what does this protein even mean? How does this, even the genetic stuff, I don't really find anything. Something simple like a pun a square. I mean,

Daylene Long ([16:34](https://www.rev.com/transcript-editor/shared/7qDTBSxGrYuk1wM8tWeUAgRHqFJrRNxuvHaS1R0-69E65QpS1hVYa7uSulMP9tvvU3MY7Xy2lW65S6P24DJo8k4VmhY?loadFrom=DocumentDeeplink&ts=994.52)):

Okay, you're not finding the kits, which it sounds like that's why you were happy at the PCR of the mini PCR.

Erin/Sean ([16:41](https://www.rev.com/transcript-editor/shared/SpRjVQJsFq6y2WU3C_dW9ZkhpQb0ZnUJxMPIfaJuD8MgA9VNBQ6xKDE7nk4wqrwut5ww_oNrnnVucoZarQoDZcB5P-0?loadFrom=DocumentDeeplink&ts=1001.93)):

Well, and I would say the mini PCR is great, but I still need to get the kids to the place where they understand what they're doing, what that machine's doing. How does this band show that you can taste, one of 'em is tasting PTC paper, which he can physically figure out, but how does this band from the DNA show that you can actually taste? So I'm hoping to get my kids, even the PCR is almost like the final project and I got to get the filler to get the kids to that final project.

Daylene Long ([17:19](https://www.rev.com/transcript-editor/shared/KT1kdqm3lFwYe-AkYRul-_l1ApX8GjAVv04YlghHFqV1dr6kKuWItMFJ0EStSn-b4OT73hdev-untvOugQ3gWNf23aM?loadFrom=DocumentDeeplink&ts=1039.46)):

Okay. So it sounds to me like you're saying with the population that you're serving that even getting kids interested enough to be able to learn this means applying it to their world, applying it to what something that matters to them has been important to you?

Erin/Sean ([17:39](https://www.rev.com/transcript-editor/shared/EDXhKtCZ97rbfroWCi7eSKlx3laXcevm7sbYgkzMS__M_cKzFo9i3PPgbW9l7X1-jHLh_d8JH-ahiZQCyUb1ldn0PrM?loadFrom=DocumentDeeplink&ts=1059.77)):

I would say so, but I think again, a lot of our kids, it's all over the place. It's attendance, it's motivation. Some of 'em lower reading level, lower English proficiency, some of 'em have a lot of gaps in their education where we're teaching high school material, but I sometimes have to drop back to sixth and seventh grade standards. Sometimes I just, because where they're at and attendance and whatnot. But I think just something very accessible where they feel they could do it and kind of build that confidence as well is often an issue. And I would say for me, I'm, I don't say difficult as a teacher, but I think I set the bar a little bit higher than some of my other colleagues here, which is almost giving credits away I want to say, which I kind of hate. I want my kids to leave here with something valuable as opposed to I just passed a class, you actually got something, learn something, gain something, but something accessible and something that maybe they, and you get that from every kid in every classroom. Why do I need to learn this? What's the point of this? Where for me, learning is enough, being educated is enough for some, it's unfortunately not even earning the grade is sometimes not with our kids, but just finding that spark, that curiosity I think would be the number one for these kids.

Daylene Long ([19:17](https://www.rev.com/transcript-editor/shared/tiBow_dvCoSLgNmRYxhbUrNZ1XmTDs3fNMqpHsNH0MnUqPnOXJIvtzhwCAp67V00PN_2YUG0UitlAdMySVeSEzRzv4E?loadFrom=DocumentDeeplink&ts=1157.1)):

Sparks and curiosities. Okay, that makes a lot of sense. And it also sounds like you need flexibility in how you teach topics. Oh yeah. I

Erin/Sean ([19:27](https://www.rev.com/transcript-editor/shared/8tntlWXnCcDGzOBAXdaAWH0bSgW0mpmXMnoHrkUstc8ZOYX-ljg8dNo-2CPuO9T6ungVAD7tCDQhMc6YvihrHdt8TEc?loadFrom=DocumentDeeplink&ts=1167.96)):

Would say some of our kids are great. Why are you even here? And you could probably guess probably is more personal than academic. So you have kids that are kind of at the top of the scale and you got kids really at and trying to find that middle ground, especially on the day-to-day. I mean that's a big issue I think I have daily here at work is just some kids I can go do the high level. Most of 'em are in the middle and then some of 'em are just,

Daylene Long ([20:06](https://www.rev.com/transcript-editor/shared/kidbSO36AZwqCVVPybqDTU3ziqBX8I2psXFaIpyVZvpC5mSXnH1Opw4qz1nnAFyIPSivpPu1qWKTTiPJGKTsdxQg5jY?loadFrom=DocumentDeeplink&ts=1206.96)):

Okay. Okay, that makes sense. I'm flipping through my notes to see. Okay. So the stuff you bought from mini PCR, have you received it already?

Erin/Sean ([20:20](https://www.rev.com/transcript-editor/shared/idMhitbb0d6ofaS8soweXOc-CRsaeS1CDS_VGbcOp-GrvZrIk4yJBy3DGipa9KDmAfRHTa2YdFDlXSE1ESuGMxhlAsE?loadFrom=DocumentDeeplink&ts=1220.49)):

Oh Yeah.

Daylene Long ([20:21](https://www.rev.com/transcript-editor/shared/OrnbfPnQ3ke7XWVgpIsmiv5xmECKQ9xxgNtouoa4VzRbhqMf_RJYSKqn3iv88E8afk-Jm4vZ1tAEI8XivxPfDNr8yw0?loadFrom=DocumentDeeplink&ts=1221.33)):

Okay. And what was that experience like? Were you happy with what you got? Have you tried it out, that type of thing?

Erin/Sean ([20:30](https://www.rev.com/transcript-editor/shared/xLmUyV6zvYfX_C_2qNRTRO6XtARNvUsHZWxcf8d7akiUbgwQ4gGSMoM7dfcmxNnbe4lVzGc-NrioQbWB-rYSbE8ZHkM?loadFrom=DocumentDeeplink&ts=1230.6)):

Yeah, I was happy with what I got. Used it during summer school, used it last block because it's more the second half of biology, which I only done once, so I had to be using it again in January. But like I said, I ran into that issue of that's, you need a lot more inform background. You don't just go, here's the PCR and this is it. You got to get that genetics portion, you got to get that punnet square portion, you got to get the DNA structure in first. But no, the ordering process was good. I had meetings with the vendor and kind of walked, this is what I recommend you get came in pretty quick. I didn't expect to get it when I got it. I also ordered, I don't know if software kind of matters.

Daylene Long ([21:28](https://www.rev.com/transcript-editor/shared/yluurVE7zg9mx5hYxmWtMdgIPL9PNs6tU_mo0yi_QzEXuvec6r07L5wHyGz0dDdyIthFZDs7cABcDXFbw0II0H07QzI?loadFrom=DocumentDeeplink&ts=1288.09)):

Yeah, I'd love to hear about that.

Erin/Sean ([21:31](https://www.rev.com/transcript-editor/shared/HCTk6JWaDHuJp2VxkdXvHRpn6DAk6DD0GPoN59G9NaDvEMQWExgUp99vJNaYfwmlE5lMVbLemzfxEsCgo8MuEqdFk_Q?loadFrom=DocumentDeeplink&ts=1291.39)):

I've tried many because virtual labs, and again, what is offered out there is not very, does not meet the standards. I don't know to really, doesn't mean what we're teaching at all at all. But we did. So what was that called? There was a virtual lab order last year that we used and we kind of, no, not this year. Do

Daylene Long ([21:58](https://www.rev.com/transcript-editor/shared/bQN8kAJpe0ydIlr-ERKJERmvILlD2gQmE5dQkfhOxiN7jLMAudtvTkztBhuIjfR1KXhMF1_DuR7rmXN0iaxSYtynYJI?loadFrom=DocumentDeeplink&ts=1318.15)):

You remember who did it? Who made that

Erin/Sean ([22:00](https://www.rev.com/transcript-editor/shared/XONClEbCKeEclJP_JjxMirpLQjmLx6k3I7dgAu5ZHMUg3D8A6sZ1QBBk_7dJVA4pb0URaT-_BW2GLwVO_mwGSSskvT4?loadFrom=DocumentDeeplink&ts=1320.46)):

Shoot? I want to say they're out of Boston. I cannot tell you.

Daylene Long ([22:08](https://www.rev.com/transcript-editor/shared/GZyez-yoPy0GjfvFwfVfxfLdgHxqn5zDDsSuT7uNKUyfYQqmRT1-HgMr1b7MjYeQKyGJzmxKJNORiklzkJec_ACfQas?loadFrom=DocumentDeeplink&ts=1328.5)):

That's Okay.

Erin/Sean ([22:09](https://www.rev.com/transcript-editor/shared/YTOShFU9q6Or8-V0jUPb_CQDfBNkbcY7A-W_feat2PyVsv7yRS80DXFLUkAg0aUWPrFyGVolIvuGBaagauz-Fxj1FOI?loadFrom=DocumentDeeplink&ts=1329.52)):

Unfortunately it was that forgettable, I mean, I hate to say it, but

Daylene Long ([22:16](https://www.rev.com/transcript-editor/shared/ipMNFAcQH8VCbPomyvqIRvtIM9BM3W51A9o6xn9XfRuKSWluxQIaJoinaqx9Dam3SytxTKLTjhW1dHGKaWH9kUZl_Bc?loadFrom=DocumentDeeplink&ts=1336.06)):

So

Erin/Sean ([22:17](https://www.rev.com/transcript-editor/shared/pMIL-DabP9RKWGMis-roNvGZOEAAtNs8v_6IU949uArfM9dcyiMGFnjow8Hib2E2x3mDnGAYs5Q7yjXA0LURddBLSS4?loadFrom=DocumentDeeplink&ts=1337.59)):

I ordered software through a company called Cognitive,

Erin/Sean ([22:23](https://www.rev.com/transcript-editor/shared/UI3_PkBr8tu25GNp3s-pFb66HQFV6nzocMA_GTSp2NUlIcE3FMy1qMGI0dg_gcSbHAU-f_of0WZQ97k8rvtOH8Y7jbE?loadFrom=DocumentDeeplink&ts=1343.8)):

Which again, they have a framework for what I would love to get. But again, like I said, does not exactly meet what we're teaching the kids, which is kind of a little frustrating a little bit. So I've been trying to see how the kids engage with that a little bit more though it kind of gives a little bit of a hybrid online portion go out and do something portion. So I'm trying to find a good way to integrate that with what I typically do. And even next, I'm trying to open science education curriculum that they give out for free

Daylene Long ([23:07](https://www.rev.com/transcript-editor/shared/_kRpdNGITwoVmkGP7R9v9XjTEYvlRpboS_wm0MyDhZtXSNLaXHPELyqXlm2i8XxKiGPqgZdOPElyVYaZrN2t7HSRpsg?loadFrom=DocumentDeeplink&ts=1387.63)):

Opens.

Erin/Sean ([23:09](https://www.rev.com/transcript-editor/shared/NMJuPkRqAUV60UJ34M-FFA9lKmbHy7z8JaemGuH5JQKV-HXok2gy4o4XfCL0qnkoFaMcHEW_yFqw7CWSjJ4XWvieNIg?loadFrom=DocumentDeeplink&ts=1389.31)):

Yeah, I found some of their stuff that I'm going to probably look over during winter break and see, hey, can I take bits and pieces of this? But that big, I'm sorry, I'm

Daylene Long ([23:21](https://www.rev.com/transcript-editor/shared/kHrzYljf11636VxHA6FHPSSg4w9Z_6al337OQ2gYF-EvRQh7xHxABQ4w5mwQlUDns4JAFfaOseoI8Zi44ZtGEP-txxc?loadFrom=DocumentDeeplink&ts=1401.94)):

Sorry. Do you remember with open SED that, are there lamps and experiments as part of that? I'm

Erin/Sean ([23:30](https://www.rev.com/transcript-editor/shared/fystECWErCU-3GPQX4zfGY3Ko5cfsB9vLumahxCLcMmKtwcv51gFAmubImdo3vULHk8U7VcwctqO_1q77pjhcVVtgEM?loadFrom=DocumentDeeplink&ts=1410.22)):

Fishing through it. I think they have a materials list and I think they have more simulations from what I'm gathering,

Erin/Sean ([23:39](https://www.rev.com/transcript-editor/shared/ROhvGz5J8kVI3ITVvKh_OqXETXr99zF6QLLgiU-cT0xrpZKVfE_X1jjhPnhTsAjtJ7ald1jHGOuhnInILhkwFbpVr9Y?loadFrom=DocumentDeeplink&ts=1419.16)):

Which I'll be honest with you, our students, the hands-on stuff, It's just find the right hands out and stuff from the, we had somebody come in from somewhere in the county and they were about gardening and they brought in composting worms. The kids enjoyed it and then, alright, that's cool. The hands on the enjoyment part, the memorable part because that's what got me into science I think as a kid, is remembering the stupid things my teacher did in high school. I don't think I'm doing that as a teacher personally where I'm at in terms of something memorable that 20 years from now, I remember my teacher did this, but the earthworm thing would be one of 'em, the composting, the Verma culture. But the only thing missing there was, alright, well what did they learn at the end of the day besides we played with worms, what did they actually learn?

Daylene Long ([24:40](https://www.rev.com/transcript-editor/shared/iGbgJX6LqWqnu0jU7C5SIIF5paZGHUhr-8S5aDopj6V1tr4REL22rmENHi_urd9PkTR64iV5FeiiWZioOCou8YvPiOw?loadFrom=DocumentDeeplink&ts=1480.28)):

Yeah, did you have that tied to a standard Or

Erin/Sean ([24:43](https://www.rev.com/transcript-editor/shared/TEU_dfVeiUFk9QMOM_njgXbGg3U_XWCJisrDycqT11vX1MErCVRX1kGVsZ3O_XY8MOTbcmsj7ADbL9jRbfjT2pF7LFU?loadFrom=DocumentDeeplink&ts=1483.25)):

Oh no, they just kind of came in because someone in the school made this connection. They offered to come in. So there really wasn't, luckily it was kind of meeting where we're learning about food webs and energy roles with producers, consumers, decomposers. So I did kind of make that connection. And again, it's making that connection to like, hey, this stuff we're learning, it's the world you live in because our kids are very just isolated. Many of 'em don't leave their city or leave their phone sometimes. It's like you're part of this world, what's happening here is part of this. Your food costs, your gas costs, your food, your housing costs, it all ties even into the biology we're learning and just trying to get that spark going again. That's been my number one why I feel like I failed daily sometimes is I want every kid to be like, yeah, yeah,

Daylene Long ([25:45](https://www.rev.com/transcript-editor/shared/2d_qO_sKK2fqjxtmslxkVPI780cB39FWPelX9URdVcIqZ_UkZZTeBHZioc6J0UL79dneaILFwQtKUjWrkQzX3bWnMx4?loadFrom=DocumentDeeplink&ts=1545.74)):

You make a really good point about the disconnect with kids because sometimes they just don't even leave their phone. And I was thinking about the earthworm things that you were doing and it sounds like it's important to know what the standards are going in for you as a teacher, but also to know how that relates to a student's world in a bigger picture to really try and connect to things that they care about and things that are important to them. Yeah, That's true. Okay, that makes sense. I'm flipping through my notes. Do you guys do any dissections?

Erin/Sean ([26:32](https://www.rev.com/transcript-editor/shared/4m_o-WfW40tXHMbwU8eMEroIxC7nT7ivemkdDt8hip29rklu7thPhctiNbQTEBCS_uK5t0qk_rBaFel1ptc4MhUIRAo?loadFrom=DocumentDeeplink&ts=1592.66)):

We do not. Again, the safety aspect, we don't really have a lab and there's the legalities of the safety and a contract signed from parents for science safety is hit and miss too. And then I personally don't really find a standard in biology that I teach that would require it unless we really got into spend a lot more time on body systems and homeostasis. But we kind of body systems and homeostasis move on because again, we don't have a lot of time with our kids.

Daylene Long ([27:13](https://www.rev.com/transcript-editor/shared/4_Ya99lnNHMmQOzC5t6_KGrarfdQaMDFAAcOTQCMxpll4q_JHkvdmMFXunY0HmzgULXuXpK8qr1Sq_kQdST_AQmbFuQ?loadFrom=DocumentDeeplink&ts=1633.71)):

And

Erin/Sean ([27:13](https://www.rev.com/transcript-editor/shared/2WHXfWYq7Xijx8f92oPs7ktxBeIbd0D4NSXNrRHFbr5cCrxktBIs441FgIo4L3tAdH_8yS3j9jR-az7Bm9syezS8iQQ?loadFrom=DocumentDeeplink&ts=1633.83)):

Then attendance too. I'm a lot of kids missing it. They don't get a chance to dissect moving on to the next. So I've never done dissections at all since I've been here.

Daylene Long ([27:27](https://www.rev.com/transcript-editor/shared/4GXmHsZTW0e71bGNQOGhgwlfPM3RHW6kwAnWY9g34pU5sNaC8cCgKZGRFn5jG2hJ08CIHmLGlQq03rx3p-6Vm4dn40Q?loadFrom=DocumentDeeplink&ts=1647.72)):

What about anything with, well you mentioned the worms, but anything with live specimens or plants or animals or invertebrates or anything like that?

Erin/Sean ([27:42](https://www.rev.com/transcript-editor/shared/6vaiosf-gMqe1otIoHPVRUA83ID1kxa4zzTgy36fEGTGAot6WQLrBJqYBZNB-1gKIk0JYCN7UXdxO79wbg4JhLLWqyY?loadFrom=DocumentDeeplink&ts=1662.27)):

I got a hydroponics garden started, tried it again. The student buy-in probably might've been my problem or I didn't give 'em enough chance to buy-in. So I kind of want to get into more, not just the hydroponics but the hydroponics with the goldfish and the fish cycling the nutrients and materials a little bit more just to kind of show that it does tie into what we teach carbon cycling. But no, we have the worms here now. But no, we really haven't dealt with live specimens per se. Something I'm open to and thinking about a little bit more. Even something like, oh, a little class pet, I just don't want to take care of it. I bought a litter robot for the fiance. I don't want to do anything with glitters. Aren't feeding nothing.

Daylene Long ([28:39](https://www.rev.com/transcript-editor/shared/2geB7L7K6HMP9mk7u89iu_8YUsFXST1gIFKvb7eno5zko-No8xg-icAzJheDjbEPc33u44OlkdjtGw_Q4BWPRBQdO2E?loadFrom=DocumentDeeplink&ts=1719.54)):

Yeah, I hear you. So a couple of just things that I was thinking about. You mentioned two things. You mentioned building their self-esteem and their confidence level in learning as being important. And also why the heck am I learning this is really important with the populations that you're serving, those two things.

Erin/Sean ([29:10](https://www.rev.com/transcript-editor/shared/eI1f-8ceNkq86z7T-rTZ4fdZJTWKIpncEuw48R002TfiZA3P9KvrdddOniZjLnNuo4-59QXERPFM2-nYf4YUU4hDVyY?loadFrom=DocumentDeeplink&ts=1750.89)):

Oh yeah, for sure.

Daylene Long ([29:12](https://www.rev.com/transcript-editor/shared/du-3tnfz4FX8ebowjPMkKORg2Xcia7GXBSGJNRRORO6DYdq4BRz_eahl1ORk3kKsjZJrkryMs4_-hkGIHiziSGGWKMA?loadFrom=DocumentDeeplink&ts=1752.51)):

So any materials that you can think of or that you've used in the past that have helped with that

Erin/Sean ([29:19](https://www.rev.com/transcript-editor/shared/z20RpMDHucHYAXBWFCH5XWp6a5CqPGQit27YHlAlp2OGZ9IgeAqebUi24X7Ik_x6u3E_KO5Lh6MPJAw121kUdOwr5Ec?loadFrom=DocumentDeeplink&ts=1759.65)):

All? Unfortunately, this doesn't tie into the content I'm teaching, but like a coding kit where you're actually plugging into computers and creating a code that actually produces, when we got trained on it, we just did an in service and I was like, I want to buy this and see how it works. We to build a parade float so there's gears and colors. And so I remember taking a few students aside to do that. I remember ordering with a grant just randomly and a circuits kit and the kids just, some kids were just playing with it. They had nothing to do. And actually my roommate had the kids to do that, so I actually observed them using something I bought and never used. And kids seem to have enjoyment there. I think life science, again is one of those kind a difficult ones to, because we have kids quick, we have 'em short period of time. It's kind of hard to find that even growing plants, I remember I'm talking all over the place, I can keep my

Daylene Long ([30:34](https://www.rev.com/transcript-editor/shared/miasmXEMU1jnocPi4fzMo7_YZY5NEledzquPoUkcTwogNChKyX1WEYP5O5Q4Tgi1RiNPfvi47s7GXTrezXJcXP3YnqU?loadFrom=DocumentDeeplink&ts=1834.44)):

A great job, you really,

Erin/Sean ([30:37](https://www.rev.com/transcript-editor/shared/AdrPTXMuZLa_ped4r9wHq8AqDLv_NEX6KiRtmMbjQjEm0-zVk7bezyJ0ZhS0p6caYT5B9cDUZ_3uqFyzxE1cKrFZaF4?loadFrom=DocumentDeeplink&ts=1837.12)):

But my brain's going 20 different areas. What's wrong with me? I got to have a straight going over Wisconsin, those flowers for DNA genetics, I don't have time to plant this. And then

Daylene Long ([30:51](https://www.rev.com/transcript-editor/shared/GWuBI_8Iy3XzsVf0skXDlqL-3kLWto-7jVFhDE5MJJJ2dti-xKBYiVxF6gOpLkv-3gwkDMBXI7N5Q3ItFubFurE4nyM?loadFrom=DocumentDeeplink&ts=1851.7)):

That are quick,

Erin/Sean ([30:52](https://www.rev.com/transcript-editor/shared/Fh4tudDsYZ1Y76HTRD3s3MwumCNzbX_ZyX54xDyFIkxpVlNawpOcaABd0FQ0JX6-I_-9c0-MXgTX7syIsks_rn0gxKg?loadFrom=DocumentDeeplink&ts=1852.63)):

The luxury of that time. And I feel like life science materials kind of needs a lot of time. If I'm going to grow a plant, I don't have, this plant might not even grow in six weeks.

Daylene Long ([31:07](https://www.rev.com/transcript-editor/shared/bHJRE1Xlces1Uk_KXOH9HSsp42MHla_5Ms9-zIMN81U_uXh4Q-dJCxfxuXHV0SgKloJBmSXmqFdDGKpslpxfNFcjIxM?loadFrom=DocumentDeeplink&ts=1867.57)):

And that's a good point too for our client to think about is for these kind of shorter labs, how long would you want them to be?

Erin/Sean ([31:19](https://www.rev.com/transcript-editor/shared/kiMPjS6u1l5qrGbyfeiNBi59qtToMw2N4uP-4Td0zKKimIoq405wkwSokCSG7KlvaMCVLZSw0Cy5wm6pVb4kGxUtK1Q?loadFrom=DocumentDeeplink&ts=1879.99)):

I would probably say one to two class periods. So maybe two hours, three hours.

Daylene Long ([31:26](https://www.rev.com/transcript-editor/shared/TZFOLvHoSS7GjvFqhoMLhQWEj_UhUX0xebpBqUZxgoeHIjMsoX_mmjMHGqQ0bFCA0M5YXop-YbX-VJY81dPR91oIuKc?loadFrom=DocumentDeeplink&ts=1886.71)):

Okay. Broken up into distinct chunks of what

Erin/Sean ([31:31](https://www.rev.com/transcript-editor/shared/gjYcNMpPq4eAm4mkIL5u5WfkhtBXLan75lztadHTAZU81ShEiltHaJ52GHK1nZHrH5AkCi3H9m9tT_O89jH819sqnlY?loadFrom=DocumentDeeplink&ts=1891.6)):

I would say chunks of content-based chunks a little bit,

Daylene Long ([31:37](https://www.rev.com/transcript-editor/shared/009dtT4ruSO8RyB5iFpIbqWl0Tc9rbeVtNkYOig20qKt3zp27vFwE66c-gm4UdicPaWfuLCRkDllMtX9u-J5fOV4wMw?loadFrom=DocumentDeeplink&ts=1897)):

Not content, but the experiment itself or the hands-on activity itself. If you're doing it over a couple of days, how much should the activity take in your time?

Erin/Sean ([31:51](https://www.rev.com/transcript-editor/shared/weqHzKoRILf9kmII35j47bfxyX5J20-jwd2ny_rj-bKt6NEa3We7ObPjyFrzmLU9hKDvktxCPTrZ-RV9aM70CqWpKSE?loadFrom=DocumentDeeplink&ts=1911.61)):

Alright, well here's ideally kids are able to design, collect data, interpret that data, and we've kind of been working on that claim evidence reasoning approach, a DI approach, which is another vendor we kind of worked with in the district at some point.

Daylene Long ([32:08](https://www.rev.com/transcript-editor/shared/ppZSAo86Ju79WCz6DsWNQRb03aAj5QY-jGlgdF5SCoPZFMPnXM2DFfjmvllXYBVFAiSAq4wSnpS3aU6tlNG-J_wwjlM?loadFrom=DocumentDeeplink&ts=1928.74)):

When is that that you work with on the CER?

Erin/Sean ([32:12](https://www.rev.com/transcript-editor/shared/1FBOIQPnFI0tK9b0jMQr-hpQjqit6EVV4ggmK5zWFWP29KfNCkdrdO4LvYaUcV1xq7YTIuucPV-S_NPkAG5IrbYZ27I?loadFrom=DocumentDeeplink&ts=1932.43)):

It was years ago. I don't know if we're still working with them. It was argument driven inquiry, I want to say

Erin/Sean ([32:19](https://www.rev.com/transcript-editor/shared/FiGOkwI1OJxqe5BnS0pUil1kqPuwkP1gUJpO7yjwWy7Oi6lWgk427px53hbiJzNZanlsaJuDiYscHWuoxORyalSgWYs?loadFrom=DocumentDeeplink&ts=1939.3)):

Where you have an essential question and then kids design an experiment and collect data and ideally that's what we want our kids to get. That's a skill we want myself and my colleagues in the science department. But these kids struggle with that independent idea. The independent, they want a right answer to just point to it and give it to me as opposed to there is no right answer. What does that data mean to you? I forgot what top brought this up. But that's the number one skill I want these kids to have. Collect data, provide the evidence, back up the evidence. What does that data mean? That's ideal. But a kid that gives the kids some background knowledge, maybe here's a way to collect data, here's a way to express that data. Now what does this mean?

Daylene Long ([33:17](https://www.rev.com/transcript-editor/shared/WyM6aYM0PkXbk2X-WEaMznynJL5rw2qpdCkGrVKsnUhNGxqZy2gg5EBjqqJjFliaJCp50B5ba6mGKwqRV2_MeM4ApbY?loadFrom=DocumentDeeplink&ts=1997.66)):

Okay. So you really trying to teach them how to think critically and not just know the facts, but how to understand giving them a framework to understand the world

Erin/Sean ([33:31](https://www.rev.com/transcript-editor/shared/8oNM3ifbnXGn3XBJr5C9j3df99Ql-QWvV-MlSFdec4mRPxsNcicWrosyixdk0NvLkJlb_jasdGlUosSni0fHVFGwY_o?loadFrom=DocumentDeeplink&ts=2011.25)):

And the application of the world. And

Erin/Sean ([33:34](https://www.rev.com/transcript-editor/shared/CK7hcYCK6SIPkuFQHvDp0P_BAUu2i6GqSEL2O0m6QzFHSSiB3fnZ2NR26HauBlFniDINTuHFxmJOl_pYz160ZIw9YZI?loadFrom=DocumentDeeplink&ts=2014.43)):

Again, interpreting data. Again, our school's trying to focus on mental emotional health a lot, but also just those transferable skills. And I fail to recognize even as a teacher sometimes that when I'm teaching these kids, they unfortunately aren't going to do anything with when they leave here. And besides maybe just, oh, I remember learning that as opposed to, Hey, is there a skill they can take with us if they don't go to college, they don't go to school. Hey, you need to learn how to interpret data. You need to know how to be curious about why something. So I think that's the number one thing is, I don't know

Daylene Long ([34:20](https://www.rev.com/transcript-editor/shared/lQjYvtRg2Wi57-EXXZ_bQsgGKEOSyiQkYEWsc7A-IpXys9rny0Aw8yTlynlLbInyv0-ZcmaPjEoJUVDV3aW9ZCxRCKM?loadFrom=DocumentDeeplink&ts=2060.66)):

When you were talking about that, I don't have a question so much as a comment and then I'll come back. But they might surprise you in how they end up using those things because even when you vote, you need to be able to understand claim evidence and reasoning to make a decision as to whether or not that data is valid. So it becomes just, or when you go to the doctor and they make a recommendation and you have to decide whether or not you get a second one. So I only bring that up because you said you weren't sure if they're ever going to use it, but I think that

Erin/Sean ([35:04](https://www.rev.com/transcript-editor/shared/-XRFBYu_x5VD7rImGB1Q89F79BF7drx4wuFeuqJnQxaq-KrBtB3GGhI_pAqyyK5856lG65fb0RD5z9zj3iF4Msuuk5Y?loadFrom=DocumentDeeplink&ts=2104.7)):

Well, they're going to, they don't know. They don't understand. There

Daylene Long ([35:08](https://www.rev.com/transcript-editor/shared/gGZKQ6rtgupjh6dUwsN5MwvBzc2urzHd2NwFU3QhTe43Yd9pJDOQXcyAU1fIvdaafir0B3OUib7imOBM5VSNU9EPwdY?loadFrom=DocumentDeeplink&ts=2108.11)):

We go.

Erin/Sean ([35:09](https://www.rev.com/transcript-editor/shared/TJmJHz5Z4kDl4nRJj83PKF_EhWOMiUOVhJLDVskNk1nvEQQsk5wxYHTXUZuXg-ppuJDXGO8_Uvl5gewasdNOricYT-E?loadFrom=DocumentDeeplink&ts=2109.35)):

And I'll throw this even back a little bit more to my kids don't talk, my students don't talk, they don't say nothing and we want to push the group the talk they're sharing the working together and the strategies to do that within a lab setting or a hands-on setting would be awesome as well. But in the kids' feedback, I daily kind of feel like I fail at my job honestly. Because you see a group, it's almost like just stoic. And I don't really realize that they're learning until the work they turn in, obviously, but they give a little survey at the end of the block and they're like, oh, I learned a lot. This is good class. But they don't give that any sort of I care, I'm learning, I'm understanding. And part of that's my fault, don't get me wrong, but turning on that engagement where you see it in their eyes and their face.

Daylene Long ([36:09](https://www.rev.com/transcript-editor/shared/KdKJQpYOqJ8Qjm5hTWk2o3FRD6d2dtTQz57w_5vivdgEQd26lLx4C-e5EKbcywLp8uppPIv6anwpNdra78kPa53llyQ?loadFrom=DocumentDeeplink&ts=2169.78)):

Yeah. Yeah. There's so many things I could say about that, but I don't want to get distracted and I want to be respectful of our time. You guys are incorporating a lot of social emotional into it, which I think is awesome. So I'm hearing a lot of that. And do you have any vendors that you would consider yourself loyal to?

Erin/Sean ([36:36](https://www.rev.com/transcript-editor/shared/VGGLBnq8hLEY19B8fivKxzGutqScg4mmZgXXuBLBpzwDuH8zlSQx8-Yszxa7FuIywXUq3mgbIm_uKuNiqt75ofoYe4w?loadFrom=DocumentDeeplink&ts=2196.15)):

I thought I was very loyal to Flynn, but I'm kind of open. When I started here, I went with Carolina. I want to say

Daylene Long ([36:46](https://www.rev.com/transcript-editor/shared/L4HpAVNPgt5Y5UiOyuwyCw6ibRDgWL2f43Wm-8DmSBlBiu1oIqu3yJ0qj9MTHJ2Y1WnJfAcbgI8INzLcBj3JE2zf34I?loadFrom=DocumentDeeplink&ts=2206.08)):

I

Erin/Sean ([36:46](https://www.rev.com/transcript-editor/shared/b7qczvM9xeuDo9zGpayJeaPoKMxb5lXxLvNB_TL27iFjVi68Qg0YgCsvJm3vZrGu7gl6IxOlPOAMND_uXCE8WdTvbeg?loadFrom=DocumentDeeplink&ts=2206.17)):

Don't think I gotten anything from them since I, and I don't think I really use, and again, I ran the same conundrum. I'm spending a lot of money, but not really using it.

Daylene Long ([36:55](https://www.rev.com/transcript-editor/shared/2mQqUU6msI3MO0xBgwY7Iyc4C_h9mbuM1-yF915YjoqrGJOidQZs1jvXwOrNo-GwWGjpL4cWk2rRSkxnPljc1Xj_ClY?loadFrom=DocumentDeeplink&ts=2215.26)):

Okay. Why weren't you using the Carolina stuff, if you were buying things? This

Erin/Sean ([37:00](https://www.rev.com/transcript-editor/shared/VPEYp6Gu7t2aJ-TniPpnvv0VoCW-ETHq3ddZJaO67qN6WFVWdd9BeiIBkw3_tdM01NMgp7hfT4vYDNt9Sozs2_AS3rQ?loadFrom=DocumentDeeplink&ts=2220.48)):

Was a long time ago, to be honest. I would say back when I started, I got order through Carolina. But I would venture to say it goes back to how does this directly tie into what we're learning or this essential standard or skill we're focused on. I would say that, and maybe I'm reading into these things wrong, but we have the books and we use it as a framework of the content. And I feel like everyone's not quite meeting, Hey, this is the content that's in the Living Earth model. For instance, going on right now with biology, tying in the earth science to physical sciences with the biology. I don't know, I feel like everything's still standards based. Back in the nineties when I was in high school,

Daylene Long ([37:57](https://www.rev.com/transcript-editor/shared/LsScY1YapMdp2qZQGZ4eLy_iU88Q9R-ba2s483ytP-g46F4LpTnyeGfwtbJnvr4EMiTQYrb8OfBO_rIKGTwovh6Olzs?loadFrom=DocumentDeeplink&ts=2277.84)):

You called it living earth concept. Is that what it was? Yeah. So not being a teacher, I haven't heard of that, but is that based around some of the environmentalism and oh, what do you call it? All right, I'm blanking. The climate change issues

Erin/Sean ([38:27](https://www.rev.com/transcript-editor/shared/Dl-zD7gjKEJ_C0bF3fNPFWuEQ06gbN8T-8swTqnxOXoC1Y-obcPnZcYYcttzhkuIy5cu6GcX039DVIa8HlCkVqP_tGo?loadFrom=DocumentDeeplink&ts=2307.63)):

That would tie into it a little bit. And they try to get a little bit more of, it's trying to tie in all physical and environmental with it as well. And it's a different model than the old standards based. Even when I was in high school, you learn about cells, you learn about tissue, then you move on. The way the books are set up and the way the curriculum is set up, you start with ecosystems and populations first, and then you move into carbon cycling and photosynthesis, respiration things. Then you move into evolution and then you move into genetics and DNA and then into eventually ends up with climate change. So that's kind of like the way the books are organized now these days. And because we just got a new, I guess a fairly new textbook adoption and our continuation site went with a different book versus the comprehensive and all the books still fall. That kind of, that pace, that guideline in order.

Daylene Long ([39:36](https://www.rev.com/transcript-editor/shared/u7TzmAFcUWONfOk84FOzgGWUy0vfd0Zpdx106uYEIFujEZWkPHtYCusfPeFjopYyXUx178ejkX2S5wBPuaWxdn926Yo?loadFrom=DocumentDeeplink&ts=2376.16)):

Yeah, that makes sense. Okay. So you don't use Carolina anymore. And you said that was way back when you first started. When did you first start teaching?

Erin/Sean ([39:46](https://www.rev.com/transcript-editor/shared/Syb0AZT39V7A_EWcH9fekQw78QuwwFYU2noKh9QCVw0PUNWdZA-cS_n5CH34aXCpeX76hyQX7Zfez9uMdjgC1uOg-tY?loadFrom=DocumentDeeplink&ts=2386.9)):

2009. Okay.

Daylene Long ([39:50](https://www.rev.com/transcript-editor/shared/_zoGkHupKPveewlga4GWmNuHQI_IKqizrSkYvVr5tXUwxngcc5aHww3rb23cw9lka2sj8PqGsJzHtGrmNB9RdMYJD7E?loadFrom=DocumentDeeplink&ts=2390.5)):

You said you No, I'm open to anything.

Erin/Sean ([39:54](https://www.rev.com/transcript-editor/shared/HgXaFKV1oJCf1ciXKoHzchQ44aW8QnTsm-qdolpo5HyEzZu3l0xvJ-hsB2S8ZWKgDPQ2RqCowc2gTTRziFycvgQ-3Hs?loadFrom=DocumentDeeplink&ts=2394.1)):

I'm not loyal to anyone. I'll give booklets and I'll just skim through 'em. Oh, that's cool. That's good. That's good. I would go to Carolina. No problem. If I saw something that You

Daylene Long ([40:11](https://www.rev.com/transcript-editor/shared/Rh-V0GD5oVJz39d8osYEaYEkcyWHZEc96LZ8yMeKUkuQMBekQRZS-YKY6NM5RfhU9Xah-IChA_FPaCQG4idlqSQFMmk?loadFrom=DocumentDeeplink&ts=2411.71)):

Said though that you used to be, felt like you used to be loyal to Flynn, but not so much anymore. I think

Erin/Sean ([40:17](https://www.rev.com/transcript-editor/shared/vu51LTokFu2-XvqjS2E_xSvo6XIBTINNT9Z2J8CLzM8itloEuV6Qn7FJ2ezyFokpgFUTGhF5RWZ6ISkjFDERANsy-bw?loadFrom=DocumentDeeplink&ts=2417.48)):

That was just my, it was the easiest vendor to deal with and work with and get approval and what my stite needs to from them. And I think that even goes back to ease of, because unfortunately there's so many levels and layers or purchasing, it starts from us, the teacher, then it goes to the admin, then it goes to the purchaser on site, then it goes to 55 district people, and then it finally gets mailed to a warehouse and then maybe it gets you. So that's also sometimes part of the process as well is dealing with the layers of point A to point B. That's what we need. But

Daylene Long ([41:04](https://www.rev.com/transcript-editor/shared/iFDmYCuaaUSWu_OD9_ATptyQstwjsxsSQyzJpk03ZUkKfHnlpBg0s7ESZeGvo55SWDIY5ecl_fRGnolBlEfGuHZ19kQ?loadFrom=DocumentDeeplink&ts=2464.36)):

You said that Flynn used to be really easy to work with. What made them easy to work with and what made you think, okay, maybe I'm not as loyal to them? I

Erin/Sean ([41:17](https://www.rev.com/transcript-editor/shared/lmxTFWcLBYKR2jh9xbAMVQYqFafeYvJ18q3YXYvabIKjIMnOF8Gcq6iqMkIHkIuNuJ3AdxQlNCtaYYFRprigDgwRdoM?loadFrom=DocumentDeeplink&ts=2477.2)):

Would say just go on the website, searching up a topic, finding what's there, finding the code, making a shopping cart. I think that's kind of mostly the approach I've been taking. Unfortunately, because I don't have a budget to work with, it's almost, it would be nice to say, Hey, you got this much money to spend, go spend it. As opposed to, oh, I'm just going to randomly one day just go, let me see in order that way. And I think that would help if these vendors would also almost break it down by the standards or the content. And we're like, here's a bunch of, it's very like, oh, this is physical, this is earth, this is bio, this is microscopes, this is dissection. Which a little bit more like this is about ecosystems and populations and this is about DNA and genetics, and this is about, then I ease up the ordering process and finding what you want, what you need.

Daylene Long ([42:22](https://www.rev.com/transcript-editor/shared/Hb7q_iSKYJCYHfIC13S6xVOYMkoUM9HqnHGASLrMMzc8xm5oUZaOBXa3784wBf3w67q7-8kiubyRRzgXAUzRIMrrDjw?loadFrom=DocumentDeeplink&ts=2542.49)):

So you're seeing that vendors are dividing things up according to what they have, whereas what you would like to see is here are all the resources you could use for populations. Here are all the resources you could maybe use to teach ecosystems or genetics or those kinds of things.

Erin/Sean ([42:47](https://www.rev.com/transcript-editor/shared/GNXkN8-uabQtXx5CMOCDbfVMk9xI3tP9nO2AhH7CzoJjOlpLq7CtYtUH-0QAtHQLjP6XgMUhZyUbA_V_Qg-VPpuRaaA?loadFrom=DocumentDeeplink&ts=2567.69)):

And I would say maybe tying it into an NGSS standard more specifically to A-N-G-S-S standard,

Daylene Long ([42:58](https://www.rev.com/transcript-editor/shared/FYEcE-w4X8X31QlXPwqUauCGeb87Jpasp6U2pW6XstSrhgurL8Ja45Gp015Fx69Jsbib8XXoFydcZEcmpG8pvdxA2oY?loadFrom=DocumentDeeplink&ts=2578.79)):

Even in the ordering process when you're searching maybe. Okay, the DCIS or the Cross-cutting concepts and science and engineering practices or all of those.

Erin/Sean ([43:10](https://www.rev.com/transcript-editor/shared/sQbIFIbUccGhoEvyt6i1LE0MjcuG9i-z1EjlHsCH3r8GRwCrf2ayzewv9uaHHFsMaQtaiqKCwGm6eyCPuANz8QqbCWQ?loadFrom=DocumentDeeplink&ts=2590.82)):

I would say all of those, but specifically the NGSS, which is build a model that shows,

Daylene Long ([43:19](https://www.rev.com/transcript-editor/shared/JP9FoRaw8ePNgwwwNkN4_AT1ScaET4ZWcJZ5qJjUrGAPUA4AR8bJcgfPcEqbr3bIZeQEmio8ltdb8UnhsKQV-r5uj3k?loadFrom=DocumentDeeplink&ts=2599.2)):

Okay,

Erin/Sean ([43:21](https://www.rev.com/transcript-editor/shared/LF6jr9c5fqpidbD45f6Q9Rth8LFBgS7LBb2h0TsgsiV40_wObma6nDENKOYFHYoKe_bpUv5aJKlpccCW70nqjsasWg8?loadFrom=DocumentDeeplink&ts=2601.03)):

This NASCO one right now, and it'll say health sciences, it'll say sales, but I'm finding a lot of stuff we don't even teach anymore. Don't go do osmosis diffusion. We don't do even cell structure anymore, especially let's now assume they learned it in middle school.

Daylene Long ([43:40](https://www.rev.com/transcript-editor/shared/zB0yvXQn_Ft9SdnNJ6dKMeGfEIqw_Isjk2l3mWOoZ5M1KFEYjMXlVfRO9pbPL-FDSqgAqdCl80j6b2bhNNsz7egwJ88?loadFrom=DocumentDeeplink&ts=2620.82)):

Yeah. Okay. I want to be respectful of time and we've just got a couple minutes left, so I want to ask Kimberly to come back in and join us and see if she has any questions.

Kimberly Herder ([43:58](https://www.rev.com/transcript-editor/shared/cUJPrj8wOVfKRX1YhTvJ7AhlJvkZwIt79C276fBpOy6c8uavSVDfMIiiJIZJlOZVYNMaradcB9rZIxcci1ZrgbQhlis?loadFrom=DocumentDeeplink&ts=2638.7)):

I don't know that I have any questions because I feel a bit overwhelmed. What you do is amazing and that the population that you serve is deserving and you are filling that role. And I am humbled. And a couple times during this, I was glad I wasn't on camera because I was tearing up, so I don't have any questions, but except that you are doing amazing things. Yeah,

Daylene Long ([44:44](https://www.rev.com/transcript-editor/shared/yKWITlDH7HpzxJKGS1qKQ9dHTv0T02T3c2n16Bin0yK6FCSCS68fpPk7MWyPHYYlOJyg7jrZd483by07IYT60vQcR84?loadFrom=DocumentDeeplink&ts=2684.34)):

We really appreciate the work that you're doing. I felt the same way, but I had to keep focused on the questions. So I want to thank you for everything you do for students and for other teachers as well. Kim, do you want to give Sean next steps because we've just got a few minutes left and I want to be respectful of his time.

Kimberly Herder ([45:08](https://www.rev.com/transcript-editor/shared/O5zJkx34c1nRcnemmuyt3BuYKINzmt8K3rE9fvVVbiPiKyKYEjancJK_Ml0bTENLMK6LLFQDSkh0Tc4mCHUzoOCxSBM?loadFrom=DocumentDeeplink&ts=2708.55)):

So this afternoon you'll get an email from me. And besides it being a huge heartfelt thank you, it'll ask a couple different things. One, if you do think of something this afternoon, this weekend, next week, this next month that you would like to pass on to us, that we can go directly to where that needs to go to, we will do that. And then also an invitation. We'd very much like you if you'd be available to do something like this. Again, that because your opinion matters and what you experience matters, and we'd like to put you on our friends list.

Daylene Long ([45:57](https://www.rev.com/transcript-editor/shared/_Yp8chTK7iwzsRiWz5aCtT1JU1yE18AgsWXod5WrkA4lmMdN4FCuDANqk27LmI1L2NMf1CW3plnWV-v-29b7M-IOnuY?loadFrom=DocumentDeeplink&ts=2757.48)):

Yeah, definitely. At the end of the day, after we finish all of the interviews, when I typically will send out your gift card, you'll get a choice of a Visa gift card or a Target gift card, or I think you can even do all of it on Starbucks if you really want to. So you've got quite a few choices in there. And let's see, you're on West Coast time with us, so it'll probably be early this evening. Before you get that,

Erin/Sean ([46:28](https://www.rev.com/transcript-editor/shared/ostb_KmkrBw3LyI_JNA7ukv9Avj57nvtUY4rv0ZNAEhMR4kcrAunY4XH4PEpRjDNhJzXWhPsdLPnMR0g-rQj2hxvShU?loadFrom=DocumentDeeplink&ts=2788.92)):

Appreciate that.

Daylene Long ([46:32](https://www.rev.com/transcript-editor/shared/S-oFkkqdAsSYg23yGx0Jj-ZsJQgDh0h-Eix9cGKIK5Lx4H0OmCPu3R92W79oPfORvYdRWAKKB8Lpeo7okSaIJwCThYA?loadFrom=DocumentDeeplink&ts=2792.67)):

And again, thank you for all that you do, and we look forward to staying in touch with you. We definitely consider you part of our community now. So feel free to reach out whenever you'd like.

Erin/Sean ([46:45](https://www.rev.com/transcript-editor/shared/hw70ECfAQxpYaqaTNBcuo5oSmLKZWhMc1UPatFaJEdzMUy8VaUXY1cWAr57uBFAIy_umediqtb6nPwZsj5lyAI1ukWQ?loadFrom=DocumentDeeplink&ts=2805.01)):

Thank you so much. Appreciate it. Thank

Daylene Long ([46:47](https://www.rev.com/transcript-editor/shared/pwC-gh3dBNsJSk-ohvcCq0l3uhYjwXMhmPw776kOycfxTU4iea7D1u8aqgw4de4-NjyPK2Hdc6xPtbA15JPU-G0HTLs?loadFrom=DocumentDeeplink&ts=2807.32)):

You. Bye-Bye.

Erin/Sean ([46:48](https://www.rev.com/transcript-editor/shared/Y6QwRIWJ90CP_0ZFAOepN69hqp-il4joyO2sKPCIchMWUedQa9yX92ZiOzVHiPDq6aDgKSguV6UdRNWeSrNnT4x-pW4?loadFrom=DocumentDeeplink&ts=2808.72)):

Have a nice holiday. Thanks,

Daylene Long ([46:50](https://www.rev.com/transcript-editor/shared/1fwuJplOXC9GiJh_vZTXDwm13IyPJzLSEPIbbO4Fd43USqNMFhfkJkJUgoruRExuPtI6DcRmHb89iNbJdcOOj3p54ow?loadFrom=DocumentDeeplink&ts=2810.4)):

You

Kimberly Herder ([46:50](https://www.rev.com/transcript-editor/shared/1IVbbdQl53_Oudvj-rdeKy64drSpgkdEydIwxlN4Fbj0rjCZT-7pT_QtZEgbGVRarerdabdwwzkv7fh2uknK6Wmp1jc?loadFrom=DocumentDeeplink&ts=2810.46)):

Too.

Erin/Sean ([46:51](https://www.rev.com/transcript-editor/shared/m-FhZ1Z6r-Ylj3sh_qXQjfqKkiIf3rFRkIlOqx4MbbRxt1kZFM9ZjPriJC-WgjUVUVxt33T4hnhraCJvZjyRoA5IoVk?loadFrom=DocumentDeeplink&ts=2811.96)):

Bye.

Daylene Long ([46:53](https://www.rev.com/transcript-editor/shared/tc0tBk1WuStV7aB1eeeHHCx4YT2kJLps1K_i9kze_wl1Uuw6ITwdfSlJ41XvVvuhT78m6tnSI6atHcDXHntmzlrNhjM?loadFrom=DocumentDeeplink&ts=2813.04)):

Kim, would you stay on for just a second?