Daylene Long ([00:06](https://www.rev.com/transcript-editor/shared/_H4O6nSGO5XqphR0Nyu0UFIBAnBjAZNGTNxgNtrWXnzJIY08l6l4WnumMUv22FCQD2UrhO-veE1p4_ENzUUbcew_p9g?loadFrom=DocumentDeeplink&ts=6.87)):

Friday, January 12th, we'll be meeting with, or I'll be meeting with Rebecca Murray. She is well female, 28 years old. I've been teaching in the four to nine year range. She's at Eastern Camden County Regional High School, New Jersey. She's in the life sciences department teaching biology. She's a club advisor and founder for Intro to Medicine Club. I Hi Rebecca.

Ms. Murray ([06:23](https://www.rev.com/transcript-editor/shared/Cuzy9daI88ZP67kFRiPNPkvdh7xu-gBvWL8JPZHKD9DbMa219d_FVnrcO-0lOVB75uKgSVVtacLMhQTwPHFMwFz9fXc?loadFrom=DocumentDeeplink&ts=383.54)):

Hi, How

Daylene Long ([06:24](https://www.rev.com/transcript-editor/shared/pChpNc17kDhX-zO6Pb3t2TbmQ7yYc1arFX0qQ8qObv9JbnzHnzJ2HST47fYN7yqGxgBoaauxK5E_ryr0rq6WCLDbbGE?loadFrom=DocumentDeeplink&ts=384.62)):

Are you? I'm

Ms. Murray ([06:26](https://www.rev.com/transcript-editor/shared/EKXU4y8MYHkWnH7xWD3tmMaHiksZQ_Sb3kS6emIb-i0KAPWpbkAqSkdOZgJQP1awX2fRzsm7SgENcQX8mHXussY-2C0?loadFrom=DocumentDeeplink&ts=386.3)):

Doing well, thanks.

Daylene Long ([06:28](https://www.rev.com/transcript-editor/shared/Wgdu_Ol87Ke_uZfieXPNvyH7chk4Fect0NNl5G8Q2NMSfo-eo-mtYwA9Xvts0AOFYyOKXXWiRFkkpL9hDQCgpcAgVZ8?loadFrom=DocumentDeeplink&ts=388.07)):

Good, good. Well, I'm Kimberly Herder or Kim and even though it says Daylene in the corner, so normally Daylene and I do these interviews together and Daylene is the lead researcher for Catapult, but she is really sick and I'm in Oregon and we are weather wimps and it has started to snow, so from the home office as well. So how's your weather?

Ms. Murray ([07:01](https://www.rev.com/transcript-editor/shared/497KEznPT5vthEA3NaiJO3X2gvm7hP7D2mfu9imF0hD0t1fLTIFVNpbJRTMv7xg8a3cb2X524iiWCJpTV9WWVE8Ok9U?loadFrom=DocumentDeeplink&ts=421.97)):

It's actually fine today. We had a storm. I'm in New Jersey.

Daylene Long ([07:05](https://www.rev.com/transcript-editor/shared/fjEvIj17LbjRqcsLIFPOxwTUMogQVZ6H4KziASdcic47fCrTYNJAJuWxlUnFEZsxUFPmcGd7CToYGdupRw7KF0LhvBY?loadFrom=DocumentDeeplink&ts=425.54)):

Yes.

Ms. Murray ([07:06](https://www.rev.com/transcript-editor/shared/I6da-V0ClkCm4Oon2N3GpEO1qyA0GKsR0tfopy1ovFgriBUEf_-xEj1v8nlimcXHbxep5fkY9MOmH_Wy_g7oy0_naVo?loadFrom=DocumentDeeplink&ts=426.02)):

Had a storm earlier this week that flooded a lot of the state, so we're okay. Apparently there maybe is bad weather coming again soon. I don't know. Apparently I'm behind at the times. I didn't know it was going to storm earlier this week and one of my students was like, are we going to have school tomorrow?

Daylene Long ([07:21](https://www.rev.com/transcript-editor/shared/lFrWS8IFa-Iy2FxeQ-2y_EDKFljjn0pBRMBPmzp_ZU7G33XFFLLLUe3ENuwcIOflcun4ljqtBPX0uMSMpokPi7G_nsg?loadFrom=DocumentDeeplink&ts=441.12)):

And I was like, no,

Ms. Murray ([07:21](https://www.rev.com/transcript-editor/shared/LV9vvTZDs8CeFH30ikZ95QCoQx09_VPWJZa2OnMZPYyO646Krsw9tN0ru-Yjfot-YN1MCdwDpMxZdt3RBL3uRC0zFco?loadFrom=DocumentDeeplink&ts=441.76)):

Why would we not? And I was like, oh,

Daylene Long ([07:24](https://www.rev.com/transcript-editor/shared/8lrgnZOnseYnUIesQ-i5y7sKyOdpD28rvDGD8wACtGLQEBCfBShYq488IwKbTYI5cRwnpRoSeecrGC9mxcOCcK3VSM8?loadFrom=DocumentDeeplink&ts=444.8)):

The storm. Yes, yes. And you'll get it in a few days because yes, it's hitting here seriously tonight. So yeah, probably three days and you'll have it. So, okay, first, thank you so much for doing this. I you been involved in an interview process before?

Ms. Murray ([07:41](https://www.rev.com/transcript-editor/shared/7C_oOc5Nd91yGOzf9BMTN05LMu5WkK-EMPvx4-Soq_-slyFrdtX46f4LdjuK6lnPKkpN6lnq2XlrTyDCWNuCYe_e4nk?loadFrom=DocumentDeeplink&ts=461)):

No, not one like this. I filled out random surveys and stuff before but nothing to the interview degree.

Daylene Long ([07:46](https://www.rev.com/transcript-editor/shared/9lKVCFRbU_NO5od1vx7NB-NlQ_Q3Gxz6FTgzTGmSTJZKzmhJF2UE7iKG-o_oUoVIJAAgXyWWFGZ7IiG6wkO-Wix6s6s?loadFrom=DocumentDeeplink&ts=466.97)):

Yes, yes. Well you fit the profile and I'm happy to have you. So first I'm going to tell you again, I'm usually the one that is kind of behind the scenes. So if it takes me a second to figure out what the next question should be or something like that, please forgive me. And Daylene may be in contact with you directly if I miss something, if there's something more that she would like to, she'd like to ask. So first I want to let you know that we are recording.

Ms. Murray ([08:15](https://www.rev.com/transcript-editor/shared/1BrQsw9ZbpmTIzxHcxu9LorqQnWkOZBZEyFvpVT8FWzL3ANLzkEF72DesgVVAyrp-ZylKm1P5QKoJtHK4JNCY-NbRHY?loadFrom=DocumentDeeplink&ts=495.47)):

I saw that I got notification from Zoom

Daylene Long ([08:17](https://www.rev.com/transcript-editor/shared/oCxa0rcMYKL2VCYkFMCir6QJVi5cQZu_AG6MjdDQBP4xEA-pp_OeG9OYjPjZf-kF7w2-dOMpsoHM18xKeuc6qvbyZ-A?loadFrom=DocumentDeeplink&ts=497.99)):

That it is totally just for note taking research.

Ms. Murray ([08:24](https://www.rev.com/transcript-editor/shared/FeTD1BWf0Co3rIb2jOjeJna9HB0hbuW90ZvQTPy6_oQrk1GuSNNnIKbEycVs6-Yo_CqymRjYBT0wJEWqgAzbKCcTyiM?loadFrom=DocumentDeeplink&ts=504.38)):

It's not going to go anywhere. We're not going to ask you to do TikTok, it's not going to go anywhere. And

Daylene Long ([08:35](https://www.rev.com/transcript-editor/shared/MTf7E23KIq_mHCUppPzgMJICVAe48xNFmPyGbY08f_lF_OvjEYRCsanoAqYtBBrZBLqSnk7erFJaLDH_ANSxTCB4CUY?loadFrom=DocumentDeeplink&ts=515.39)):

Catapult X is a private firm that does research into education. So what we've been hired to do or charged to do from this particular client is to find out a couple of things. One, well, the big picture is what's going on in the life science now in high schools in particular and looking at it both from pre covid through Covid to now and then into the future. So part of this is what we'll get to this is what, if you have thoughts or dreams or what your classroom could look like five years from now,

Ms. Murray ([09:18](https://www.rev.com/transcript-editor/shared/9Zfw2jlvMSi0N0hBOTkoVLSQkdA3gaUd8adP0gltlbgiMcQ_xmvkLP3uqzHmjhBieEV3XxdoD87dC9tQ09UMAraLiCo?loadFrom=DocumentDeeplink&ts=558.99)):

That

Daylene Long ([09:19](https://www.rev.com/transcript-editor/shared/_H_WTnxhyUVtbxgVsmt2BwkRFD3j8zvpqBvkr-wUAiQflOMN4-LDVSvjVS9wRS67uzaloNwFmTzy-3v6UQlkdBA1Z50?loadFrom=DocumentDeeplink&ts=559.71)):

Thing kind of think of what I'm going to be asking as you're doing a documentary, it may seem kind of detailed or go back and forth on, ask you some more detailed questions on things because what we're following is really what has gone on specifically and what we're will into the future. A lot of it is how you design your classroom, how you get your products, how you decide what you're going to teach, and then moving through that process. So I may circle back a little bit and ask you more questions as to what's going on. So I'll try to get you out in about a half an hour. We may go a little bit closer to 45 minutes, but that's the intent of it. Does that sound okay?

Ms. Murray ([10:14](https://www.rev.com/transcript-editor/shared/T8cMsjX9--hMZgClHWLxcL-twJYbuKOqI4zPhlsiUqm1T60DL1q5Zhw2nFucS-V6gqrurQOboQZXA73I_TkHHf9HzVw?loadFrom=DocumentDeeplink&ts=614.22)):

Yeah, all sounds clear.

Daylene Long ([10:15](https://www.rev.com/transcript-editor/shared/JEcy9rpPsaCSItqdyiqWfg1f32I9cVvbUCKiXi2w9Mk5FtilWtR7fxM2pgixgEHteozVoKIithc3AcEyLx3Zu5TseK8?loadFrom=DocumentDeeplink&ts=615.78)):

Okay. Well Rebecca, if you could take a minute and just give a little bit of your background, where you're teaching now, how you got to it, why you decided to teach it, just a couple minutes on that and then we'll dive into the other part.

Ms. Murray ([10:30](https://www.rev.com/transcript-editor/shared/o5Og9Ozpkgowbcky3Y89Vvep06mG36JVqFJHMjUvcXibNniS9eRMTH5hozdZ-3R7RNulhQdWvNLOjY5e-96okfst-FI?loadFrom=DocumentDeeplink&ts=630.51)):

So I teach at Eastern Regional High School. It's in Vorhees, New Jersey. I went to college at Rowan University, which is about 30 minutes south of here and kind of ended up staying in that, this general area. I teach biology. I also teach now environmental science. I've taught anatomy and physiology in the past. I taught AP seminar for a year, so I've kind of had a wine range. This is my seventh year teaching and my seventh year at Eastern I got hired here right out of college. So I teach a variety of levels as well. I teach the college prep level, which is our level below academic so to speak. And then the accelerated, which is our standard level class.

Daylene Long ([11:18](https://www.rev.com/transcript-editor/shared/czgWgHYrBaftuRKxZjlCjE_LxA7Z2RBEpJpQUn5UuEtbJtyxpSRbE1MehSGJMT1UEuBwUdjf69YNEcXQBPvxMEOp4lU?loadFrom=DocumentDeeplink&ts=678.75)):

Okay. What did you graduate in?

Ms. Murray ([11:23](https://www.rev.com/transcript-editor/shared/Wzt7Jhfz2GiCay7Ahp3JuAjt2ssa1FBxq2D9GggOLOEd-hLk5uqctoWKER5zO12ACz9YW5-cEnT1LMlefLx8YBW4zUA?loadFrom=DocumentDeeplink&ts=683.91)):

I have two degrees. I have, well more I suppose. I have a bachelor's of arts in education K to 12 and I have a bachelor's of science in biology. I also went back and got my master's degree from Western Governor's University. So I have master's of science in curriculum and instruction.

Daylene Long ([11:41](https://www.rev.com/transcript-editor/shared/UGS5XacNiX5IjpbFH4-SQDODK2Ou3hGkp4gkR0tVx3LOPjqpwMKeB-oq0Z-4E64Hvq1yYjhd-EiE2iX0wWsLVwwL0n8?loadFrom=DocumentDeeplink&ts=701.37)):

Fantastic. You've been busy.

Ms. Murray ([11:43](https://www.rev.com/transcript-editor/shared/gZAIbzVT483j7dCfMq7nCOyfRcz0wT1v9Lnqx8hv-ZBegvFj7VNGV8iRg1jBZhPxQyZwNTQ5LYH1YI_zm-n8Vu0po4E?loadFrom=DocumentDeeplink&ts=703.83)):

Yes. Keep busy.

Daylene Long ([11:46](https://www.rev.com/transcript-editor/shared/VMuX8xdUEwTB70i4gUBPZGeiQRohrpYekc94A6saW1eepZ-qk5q91yyHFVrASjWuGarH2Uur3P1pQwDTWWwavkVD91Y?loadFrom=DocumentDeeplink&ts=706.56)):

Well, I'm going to ask you first if you can speak to, so you taught in a classroom pre covid, pre covid and into now. So can you just give us a couple minutes on what that has looked like and if you've seen changes?

Ms. Murray ([12:04](https://www.rev.com/transcript-editor/shared/h0G8iGBdcC-s95fvEpwSPKyrq2Cr2aly_Js0qcUe9ISiu956MwHkt0DRDiXeVTXlCCprWGnX3E11CibCWXK_0pEARuM?loadFrom=DocumentDeeplink&ts=724.24)):

Yeah, yeah, there have been a lot of changes pre covid and now in terms of what we do in the classroom don't look super different beyond the fact, sorry about the banging. They're installing a new water fountain right outside my classroom. Of course right now the main difference is that we started using more online tools. So we got a subscription to this website, I call it Case Most Explore Learning and it's online virtual labs. We got that subscription during covid because our students weren't in person or they weren't all in person, so we needed alternatives and we've kept that because we really liked it. So that's the one main change between before and now we're starting to get back to more of the hands-on labs, but otherwise those are pretty similar. During Covid we were split the first half the end of the year, they were all fully virtual.

([13:01](https://www.rev.com/transcript-editor/shared/JAyKt7ha0J7XynnUPGgkxPsAWeUIzpbQSdZDOOf6ryOeKFhYyLn4ICF_UeJjxzvhkQ7GGwIGTOu20uE8zvRjRxZfods?loadFrom=DocumentDeeplink&ts=781.93)):

It was totally different The following year it was a mix where half of our kids were in person and half of them were virtual and they flipped depending on the day of the week. We had a days and B days and certain kids came in on a days and certain kids came on B days and some didn't come in at all. So all of the activities we did had to be able to be manipulated so they could do it at home as well. So that was a totally different experience, but that only lasted for a year. And then once we came back to being in person, we still kept some of the virtual labs because we liked them, but then we moved kind of right back into doing the actual in-person activities and letting them hold stuff. My school is a one-to-one school. They all have iPads, so most of what they do is on the iPad.

Daylene Long ([13:52](https://www.rev.com/transcript-editor/shared/RDEUXe-jt2jRtaQ1uMgbanCwSpEQWkOPeF8Ou7gERc3kL9CHh0VPBMfaxQdvH2VaIjvrntgMxwGNPl-4St7sUF3CaNA?loadFrom=DocumentDeeplink&ts=832.15)):

I have a couple of questions on that. One I'll get back to is kits. I dunno what you did while they were at home and you've kept that, but you said that you liked or as you're part of a teaching team then or your department or whatever liked the, did you say it was gizmos

Ms. Murray ([14:07](https://www.rev.com/transcript-editor/shared/JYSDoDbyDADOk9aVnBSyP90llFD2INcDq0OYliClMGOMVzsZahxsPm6XXgfLy1E0_i0YObryGBh1lm9xGlO1IBhDmJc?loadFrom=DocumentDeeplink&ts=847.93)):

Gizmo? Yeah, that's what we call it. Okay, why did you pick that and what about it did you like that? I mean it has made you

Daylene Long ([14:17](https://www.rev.com/transcript-editor/shared/x65JnYH6lFORapPNwW-3Ta2-TaWMS4Tdm63B7-Mphs5STXOuIlF2NOPlxggrkqcfXu0F_4S44UcQ9unqLzXTWNRljMo?loadFrom=DocumentDeeplink&ts=857.23)):

Say, okay, we're keeping this.

Ms. Murray ([14:19](https://www.rev.com/transcript-editor/shared/MLe02TPZ9EnG2CfRvk0Rw1pLKyBC1HnqFxindnp2WfOHaf0ebUUSR4M53D-Y5F82xvEaQnwye-of6Sdn4Fk7z7LnW4U?loadFrom=DocumentDeeplink&ts=859.84)):

I think

Daylene Long ([14:21](https://www.rev.com/transcript-editor/shared/AJuBYhj1ERM1Wvdh38awi_wiT05yK2AnLwhHezx23Y5jSYR8CI_lzXxOuxtcxyX1hxz7-YcntLfsfa5HL1TK00FT40U?loadFrom=DocumentDeeplink&ts=861.13)):

It

Ms. Murray ([14:21](https://www.rev.com/transcript-editor/shared/6q38z-S-g4xV5KP4Q8HveJCMO750eaaYIY7-Mueombb0NyxoMx4fwjCbDF6E_7k8drd7MBfzjK2hRAtaHTa8LfK2nm0?loadFrom=DocumentDeeplink&ts=861.31)):

Might've been, I think I was actually the one that found it. It was in my desperate search for online labs because they also dropped Adobe Flash payer stopped working and so then all of a sudden all of these labs that we previously used that worked online no longer worked. So we had this problem where we were great. Now all of our kids at home, we need online labs and none of our online labs work. So I searched and I had to find one that works on iPads

Daylene Long ([14:46](https://www.rev.com/transcript-editor/shared/TvGvWYTq8YPi4Qnbq2VSk_sphdlHaddcnAC7Ag4J5ygqATSpns1lKMkuSQEBn5AItmuWSqWxKfxLOjXarucitxgeeDs?loadFrom=DocumentDeeplink&ts=886.99)):

And I found that particular website and

Ms. Murray ([14:49](https://www.rev.com/transcript-editor/shared/MamHWQt9Y8Q18sNVcXFKwTY33k1yjqVLI7Ycj1CSYiV4bkczCFzoOuE0HGvHfFABOUHQ-uG7299D1dADtU2x760LA0k?loadFrom=DocumentDeeplink&ts=889.33)):

It did work on the iPads and I liked a lot of the different activities that they provide. They fit well with our curriculum and they were kind of interactive, so I liked that. So we started getting them, we tried it out for the year and we found that it fit in well with our curriculum. So when we got back, when we were all back in person, we decided to budget for that and keep that in there so we could keep using it. I just did one today with my environmental students. It was on household energy usage, so they're able to click on different items in a house and see how many watts of energy it uses and they're able to do calculations. So stuff like that's handy where it's a little bit more interactive than me just giving them a sheet that says here's all these facts. They click through different rooms, they can manipulate the data themselves.

Daylene Long ([15:41](https://www.rev.com/transcript-editor/shared/X1ZX2kkbZnXkAHdLOfPAMlFn397JT-8DovIdvFtDq0IaBZtI0LXcgFqFm8g4ZsQ_plCZUb_GGUOaPg48Z6oF1r1VhU4?loadFrom=DocumentDeeplink&ts=941.12)):

Do you find there's other distractions with the iPad or is it pretty focused or? They Definitely can get distracted.

Ms. Murray ([15:50](https://www.rev.com/transcript-editor/shared/lVR0Z5OvZEfxvjqKrOL7u2uJMarJxoO0ZHq9F0laF0L4UhkyzFprEO-BeSlCBl3hhydsw-T_dV9yvIngxpagA0AhISA?loadFrom=DocumentDeeplink&ts=950.6)):

I have caught them getting distracted many a times. One kid today in Environmental was watching a video of wrestling and I had to go over and be like, no, that's not what we're doing right now. It's different with the different levels that I teach. So my cp, my lower level classes, I give them their work on paper still and they'll use their iPads kind of as more support. My accelerated students do everything on their iPad. They don't get paper, they write everything they use notability write in there, they'll open up the stuff, whatever educational tools we're using, it's all on. There's nothing on paper so they can still get distracted, but it's quick to notice and you kind of learn quickly which kids are more likely to get sidetracked and start watching a video or doing whatever else it is they want to do. And because they're iPads, we can use Apple Classroom so I can pull up their screens while they're in class and watch their screens. So they took a test in biology yesterday on mitosis in Google Forms and as they're taking their test, I have all their screens on my iPad in front of me and I can see where they are so they can be monitored still. They still try watch videos and do other things they shouldn't, but they're relatively good at staying on task

Daylene Long ([17:04](https://www.rev.com/transcript-editor/shared/Ydf2yENuMEwFbcACtfWDrqacV07sT45Lz3_pfqF7kV1O5KOT8R_Vd3QHMt6HX2hyh1tPrnhg4aESn_p8hBrhzej7JoI?loadFrom=DocumentDeeplink&ts=1024.25)):

Actually. You're brilliant. I mean, yes. That's wonderful that you'll be able to bring back on. So when you went through the process of deciding to get it, this is one of those detailed things, how do you go about, okay, you found it and you said that you now budget for it. What does that process look like? How do you budget for that and for other things? Yeah, so

Ms. Murray ([17:29](https://www.rev.com/transcript-editor/shared/VG79hZPTQ68ZRjuNi1OH80PbGnkP4NiHJe_XcuFdw_8Fe-L5uT926WZ4DA-QaRTjZuaoat5DLs5DcpGhkjc1kmVFXcY?loadFrom=DocumentDeeplink&ts=1049.15)):

We decided that we wanted it. We went to our then supervisor and she contacted the company to get the prices and then I don't know about the total numbers, but essentially the following year she's like, if you want to keep this, you have to cut other things out of your budget. She didn't tell us specific numbers, just that we needed to cut our budgets down.

Daylene Long ([17:50](https://www.rev.com/transcript-editor/shared/Wi3tzr-_Ok9BzIFErKTijq2-cuOuheJ9sjNQLzmNUYtkkG9fbf8RxrqfW9yCwMvB9TzPu0GfLfEaklQPpMqpnIweV3I?loadFrom=DocumentDeeplink&ts=1070.58)):

So what did you cut and what did you keep?

Ms. Murray ([17:54](https://www.rev.com/transcript-editor/shared/jj9VqDgNHdwhUtuHl6oEg22IRXc_lNrBRGK82Jg9aCChB9W2ZL4qBBNGugh2XXsBa4rXtBNdX4BUaEH89Qz7jBEdsD4?loadFrom=DocumentDeeplink&ts=1074.57)):

What did I cut? I had had a higher budget because of the previous years. Our school is very weird. We actually, we just got a new supervisor this year and he was very confused by our budgeting protocol because we're not given a number, we're just told to make our budget and then our supervisor presents that budget to the board of education and they will either accept it or reject it. I don't know all of the details of what happens there, but we get told in the fall to make your budget and one of my first few years here, a coworker was like, make your budget high because if you start low you're never going to get more money, but if you have a higher number then you can keep that higher number and get more stuff. And in my first few years teaching anatomy, I needed different supplies and anatomy supplies are really expensive.

([18:42](https://www.rev.com/transcript-editor/shared/v1VVUC4P44L0yMhEcMOuLjeWxtR6yQoOIJX8-sOyY9i-7eHn6uGO7SVMO6WrYEuYXNpWL9bOwAkT1BXVgzH1apPhP4E?loadFrom=DocumentDeeplink&ts=1122)):

So I have models, I have a muscle man, I have a model of skin anatomy and all those things are expensive, so my budget was a little bit higher, so I cut out some of those things. Some of those models that I have already accumulated now no longer need, so I cut some of that stuff out. And also I like to try out different kits, so I'll search the different websites and see what they have that might fit with our curriculum and those can vary in price. So I think I cut out a few of those just to bring things down a little bit. But the consumables are things that have to stay on there. Like I buy hydrochloric acid, sodium hydroxide, buy Alka Seltzer tablets, those have to stay because I need them annually.

Daylene Long ([19:22](https://www.rev.com/transcript-editor/shared/Bukix6esmjA7c1dLNOb4ZDOwMQhC0Yk07GKSqzLsyIgH5o6gzDG978-JiJOZHs0t30dye2oECXy5Uh-ewxWj-InVzZw?loadFrom=DocumentDeeplink&ts=1162.71)):

Where do you buy those from? There's a whole bunch of questions I'm going to ask you going back into that process, but just beginning with the end, where do you order 'em from and then what's that process? Use

Ms. Murray ([19:34](https://www.rev.com/transcript-editor/shared/6_iFtaPVX32REMhGLLYzkZqe1ZdAysuxrhoZVCUYNWtUvmSiy98pWUwCbO7kT9YH6KenctfNsbC4W1X9VeuPYXnpoi4?loadFrom=DocumentDeeplink&ts=1174.41)):

Ed data, I don't know if you've heard of that. It's like an online ordering site. We go in and we submit our order on there and you can search by vendor and you can put in a specific number for a particular vendor, but then it goes out for bidding and it gets bid on by multiple companies. So sometimes they'll go with a different vendor than what we've selected. If we want a specific vendor, we have to submit different paperwork for the order.

Daylene Long ([20:03](https://www.rev.com/transcript-editor/shared/lahT0igaAyYTTqbkkyNRIecj7DqtulgjRWAo8AazCoFMoY42MIYuS9C0SnhgGdoHtIiG0UEZWbS69UZyL1OVHxkZmVA?loadFrom=DocumentDeeplink&ts=1203.84)):

So I don't want to put words in your mouth, but that would be like a microscope or a Q-tips or those type of things or are they big things? Yeah, I ordered pipettes last year. Certain things, I don't really care where they come from. And then other things like kits are usually specific to a particular company so it would always stay with that company. But other things like pipettes, gloves are a big one

Ms. Murray ([20:26](https://www.rev.com/transcript-editor/shared/agkJHB8jCclDaIQWXgJ-xXJ_6NUiFYoN6zPcWsHIw6zicqKRSUm4CJWTB1PDQ9L-CKN4HBDv84O0tDI6CAsjejNbZZ0?loadFrom=DocumentDeeplink&ts=1226.61)):

And the different chemicals, they'll usually bid out and whoever offers the lowest bid fulfills it.

Daylene Long ([20:33](https://www.rev.com/transcript-editor/shared/n2ULLTop5C_RB5LmF9dyfTLXJ0tlsv5DIK-jR7RFvtBh_MyXM80dimPImc-Oudfp82WL5kEfMJUaZglTRjlzdmZM61Y?loadFrom=DocumentDeeplink&ts=1233.36)):

Okay. On the kit, talk to me about kits because you said you kind of used some before and

Ms. Murray ([20:40](https://www.rev.com/transcript-editor/shared/r9ij9axh_OTiZGjGDGjOb0l3YkWazM0Jt_hbcin1BTwsJtoj8-aFHcqOuWGCSFgzq-VqYMDOYjZARm6F6BfmROc4yZA?loadFrom=DocumentDeeplink&ts=1240.26)):

Yeah, I Have mixed feelings about them. I've bought a lot, I shouldn't say a lot. I've bought a handful, some of which I really like, some of which I find that a lot of the time they're never good. Right out of the box I have to edit it, I have to make my own sheets that go along with it. The materials are usually helpful but the actual activities are not necessarily. So a few examples, one that we bought a couple years ago that I'm going to be using today. I'm going to stop you for a second. Get as specific as you can if you remember the company, remember what the topic was, any of that kind of

Daylene Long ([21:12](https://www.rev.com/transcript-editor/shared/WCC1qGNbrcH9SMy9YAAIljFDgIt8W-FuU95cJ3063mdZK_P0UNBndDz493oSvsSlgyG_dNyYS7y8epfKVjv4MgJolDc?loadFrom=DocumentDeeplink&ts=1272.76)):

Stuff would great. Okay.

Ms. Murray ([21:15](https://www.rev.com/transcript-editor/shared/XQ6e955fMQIAfmh747i4HDFj6b_cK9Op0pStCk7dxYrOo0YphDbqryImmuE6Bvd9oiHL1Hel4-4MCbmJLRcoVuqIiOc?loadFrom=DocumentDeeplink&ts=1275.01)):

We are doing a unit on DNA and we have these kits with foam pieces of DNA and it shows replication, so transcription translation, I don't remember what company it's from, but it shows those three processes and the kids use those phone pieces and they put them together to show all of these. I really like the materials for it. I did not like the worksheet that goes along with it. I was trying to remember. It was way too complicated for what we needed. So I went through, this was probably in 2019 that I made the worksheet that goes along with this, set it all up, took pictures and made my own worksheet that takes the students step-by-step through it. I'm pretty sure the original worksheet that comes along with these kits are way in depth and I needed it to be basics. So I created this basic kit

Daylene Long ([22:13](https://www.rev.com/transcript-editor/shared/udLYhzA8ayRH80Mbs_Jtg8TsLRw7ewC1d1gP5Y5dXfeFER92eGCt-skJgLC72VclW3AytXLyCSa0EYWujt1RR6ti6lc?loadFrom=DocumentDeeplink&ts=1333.3)):

For This basic outline that used those materials

Ms. Murray ([22:19](https://www.rev.com/transcript-editor/shared/wZGXpHaxwckwE58PMcnXeRhAb5Jb2qTinDFG1o8FTR6WXqkM80aQKirSogcYGawYjs4Iy54K3qWGAQzkXF6Cvzn5Uy8?loadFrom=DocumentDeeplink&ts=1339.48)):

Prep room away from the noises, get the kit too. I have them in here and I can tell you the specific name and some of the other ones, I see a few skeletons as you're going through. Yes, all of my skeletons back here, I dunno if you can see this one, it's the flow of genetic information kit from 3D molecular designs. I don't remember what company I bought them from but Well

Daylene Long ([22:43](https://www.rev.com/transcript-editor/shared/Wd23OnF5emVudv8XlleLW_uKFh9BiJqVCJ7KtmMWrj1xKtNuqOT2T8HkNT7ceLuzuY_yyXazGUk9jiePZ-OAXURsJEk?loadFrom=DocumentDeeplink&ts=1363.51)):

You're back There. Just go through some of 'em that you particularly like or don't like and tell me why you like it and tell me why you don't. This is cool. This is kind of like, yeah, the trip inside Of my world, this is another one, neuroscience. Why cells aren't big lab

Ms. Murray ([22:59](https://www.rev.com/transcript-editor/shared/IexG9eBebfMTPzfngPv7VKUFbf3UllsfMJLoHaqX4qEFvZ0KO3MCpIj63YDuXPtJ908SOXDpRYi0QUfVgOKeeVDTMXs?loadFrom=DocumentDeeplink&ts=1379.29)):

That I use, they create different size cubes of agar with penal failing. They're different colors and you put it in a solution of I think base and they turn clear. So you can see that bigger cells have more trouble getting materials in and smaller cells can get the materials quickly. So it's difficult to be a larger cell. It's easier to be a smaller cell. That one, it's the same deal where I don't use the worksheet that came with the kit. I made my own and it's actually the one that I use. We'd really just use it as a thing to look at. So they are able to do the little activity, they follow my directions for it and they record the data. I don't use the worksheet that came with that one. I like there's other in here, I have a bunch of these resource sustainability ego kits that I tried using with my one class last year and it was way too hard for them. They couldn't follow along. So I might try again this year to edit the worksheet to make it make more sense to them, but that's one of those, I only have so much time so I have to decide what gets edited and what I have what that is. One on carbon footprints that I don't remember.

Daylene Long ([24:18](https://www.rev.com/transcript-editor/shared/BjBjdPDrFmYtb1hf99pJeGr9JX9pAsS3Z-anfP4oOvgcFmFeNbliO0Y1qA1oaPZsMKTQbld56pyv6ehEsEQ7TjAq-o8?loadFrom=DocumentDeeplink&ts=1458.2)):

How did you decide to order these or were these things other people ordered?

Ms. Murray ([24:24](https://www.rev.com/transcript-editor/shared/J8ePdVrCHpzsh0rQDRHGX7aeRNcjOaTVhIAQRQPcg4n7m6LYO3MRHndFqCvx2fAegTnAP07koi9DO_WHRuo7vzvUYa4?loadFrom=DocumentDeeplink&ts=1464.02)):

The foam kits another coworker had ordered and I really liked them and we kind of decided to collaborate on that. The other ones I've decided on my own just searching through. Most of these are from Carolina or Flynn, so I searched through their websites that I see what stands out to me. I have another one, I don't know where it's in here, but I know I used it on antibiotic resistance and I did use a lot of the worksheet that came along with that one and just modified it slightly and modified the numbers to fit my classes. So I just search through the websites and I see what I think is interesting, what fits with our curriculum and what can work for my classroom. So I have six lab tables in my classroom, so I always work in groups of six, so I have to make sure that the activity will kind of fit for my students. It's usually six groups of four, sometimes a group of five. So I make sure that the kit comes along with enough materials that would fulfill that need.

Daylene Long ([25:27](https://www.rev.com/transcript-editor/shared/bLPF3ciWeRZ0Z8zbvjBjDpyT3zgFGkPh2z6OzxFqGCh0hkz3-m1HhzVVMQeioFYRK_iMcpjc--Nu27Jz5_q6PpyQaNc?loadFrom=DocumentDeeplink&ts=1527.68)):

When you said fits in your curriculum, is this a district curriculum? Is it NGSS? Is it New Jersey thing? Yeah,

Ms. Murray ([25:36](https://www.rev.com/transcript-editor/shared/KDk92HiqlLPJgWuAmwFfKTdzW7BdzSyK-bM2B3llfynIp1mhZF70G5g_Zt50YjmITimWHcEqhQjfmqhATTIKz-bkT_c?loadFrom=DocumentDeeplink&ts=1536.5)):

I mean it's our district curriculum, but it follows the NNG SS standards.

Daylene Long ([25:40](https://www.rev.com/transcript-editor/shared/lByhi7X_6-Ze3ggsyAPzqqt7c5bWMS2d4lTCTbRJzfHwv8OLwSYTsIQOa98WSk7EuhIVI2cktNl9K5kOegzv2vnBJ0M?loadFrom=DocumentDeeplink&ts=1540.61)):

Okay.

Ms. Murray ([25:41](https://www.rev.com/transcript-editor/shared/e5jK0yDfbPbcFSsvB9-grsu6pDRcE2ej9BPo5NeVUU4Ci3RLCqKhwWqqqAW6PezpfplWurHmi53U2hbxZLHPKcKrJhY?loadFrom=DocumentDeeplink&ts=1541.36)):

We've created the order, lemme go back and I think they're done banging. We've created the order, but it has to cover all of the standards. So I cover the NGSS life science standards specifically in biology. Environmental covers more of the environmental standards, but also from NG gss. So we have a SAT curriculum, we have 10 units I believe it is. So we go through carbon compounds, enzymes, cells, cell membranes, so talking about osmosis and diffusion, photosynthesis and cellular respiration, the cell cycle including mitosis and meiosis, DNA and RNA, genetics, evolution, ecology and human impact and those units encompass all of the NGSS life science standards.

Daylene Long ([26:34](https://www.rev.com/transcript-editor/shared/DZNf7LiLOeRrrJqthWkyMpzi5PRqCtabTBCXSJFT84dY5qALcR8_rOjD672HnS9fGhdt9i8mvYT0xCsrVjd9zqykefc?loadFrom=DocumentDeeplink&ts=1594.43)):

So going back to thinking about preparing for the year or for next year or something, walk me through what your process is.

Ms. Murray ([26:48](https://www.rev.com/transcript-editor/shared/BlIB6Jsubv8_KebZrVs6FtJv2gjGmF_ppQcTekIcfbEQ4RGXV5BsXUvqZHs9b61_8Majd5F9lVAbTQs8tC25N2ElRYc?loadFrom=DocumentDeeplink&ts=1608.54)):

What do you mean? Did you say take an inventory, you look at it all and you say, okay, this is what I've got, this is what I don't have this, I want to tweak up this I want to get rid of. Yeah, I usually go unit by unit. If you look at the years a whole, it usually gets way too overwhelming and I'll kind of target one unit at a time. A lot of the activities I have fit into the ecology unit because that's where you can kind of do more hands-on stuff. But some of the other ones we have fit with the DNA, trying to find things that kind of fit in the units that are a little bit more difficult to understand. I might for next year I'm going to probably look for stuff for environmental science. This is my first year teaching environmental science, so I'm kind of getting a feel for it and what I've found based on the current environmental curriculum is that it's not great and it needs a lot more hands-on labs.

([27:43](https://www.rev.com/transcript-editor/shared/QaJcMOS8P1zvrk8Hz4lSn7qQEzpq2KpalHi2hrqcCTFQEIDZMzp6MW0cmSewWzlXBLrYkQKoRXJ4SlhqBW0eneqYnp8?loadFrom=DocumentDeeplink&ts=1663.74)):

So I'm going to probably go through and look and see if I can find any lab activities that will fit into the units. So they've done, I'm looking at my files, ecology populations, biodiversity and energy so far and I have some labs in energy already, but I could use a few in earlier units. They did one yesterday using solar panels that I only kind of liked. So I actually did a quick search for solar panel kits the other day to try to find a better lab. I didn't find anything that fit what I wanted, so I kind of tossed that off to the side, but I just kind of look to see what is out there that might fit. Would it fit in any of those units? They're going to talk about water next. I think that we already have a few water labs, but is there anything else that I like? Can I find a lab that will cover some of our standards and fits in with the unit we're teaching, stuff like that.

Daylene Long ([28:41](https://www.rev.com/transcript-editor/shared/zC0ufPA6RrigpX3-l7ZL0n3BZW0RcS2nuJ_334kyg9LIfgoY52jUL-VFg4rMmm6Jrajo3JueHULDcJNZVMhZTSHdD3Y?loadFrom=DocumentDeeplink&ts=1721.28)):

You mentioned both Carolina and Flynn, so when you're now looking at next year for environmental science, will you start with those two or do you do a Google search just to see what's out in the universe? Yesterday did a Google search to see what existed.

Ms. Murray ([28:59](https://www.rev.com/transcript-editor/shared/yLZJowhirysmYe_xVnMeUhYWcZfpQjmDlacBBpbH-CRa_99QWJcxQdJjv7_1FzRTPsy5ew6_xuTfhpWBDclhHoH4AkI?loadFrom=DocumentDeeplink&ts=1739.76)):

Our school I think only buys from certain companies, so we're often limited and that's where that ad data website that I mentioned comes in and that has our vendors. I think we can also use, I don't remember, there's like NASCO. There's a few of them that we have access to. One of them I know I don't like and I avoid because they've sent me terrible materials and supplies in the past and so I won't order from them anymore. Well if you're willing to say who that is or what it is that was made it yucky,

Daylene Long ([29:35](https://www.rev.com/transcript-editor/shared/ezZIYp0guViMFWDg6jsmqBzdiwJf7fWLb2JvUPevx6kRDF5B4LapjTHVrvViFneLFwIzTk2Dy1isLZyLG5Ni7QvzY_4?loadFrom=DocumentDeeplink&ts=1775.22)):

We'd love to know

Ms. Murray ([29:36](https://www.rev.com/transcript-editor/shared/mnWPpdClNwAr3GT31IFwevwHI2U0Fek4jtoZDSVKWiicpZtEuIu81ETQwye9-Q65J5krZkeG58RSRLkFtMufRnFu-cA?loadFrom=DocumentDeeplink&ts=1776.54)):

Particularly because they sent me slides this year that it was NASCO. I thought it was NASCO. They sent me slides that were terrible quality. I contacted their customer service because I was like, this is garbage. These slides that you sent me and my school couldn't find the order number, so they were going to send me replacements but couldn't, my supervisor couldn't track down the order number. He just took over and the paper went somewhere, who knows where. So I never got replacements, but they've kind of now been blacklisted in my book because of that. And I know other science teachers have had not great experiences with them as well, that same company. So we're kind of like, yeah, we'll avoid them and we'll go with somebody else instead.

Daylene Long ([30:24](https://www.rev.com/transcript-editor/shared/Gk4wvlg4gZDvC05AM9lJooiWcBR55OQeEoG7BKmEl7nMiDztid5E16JefqtS4qnDZ6agvaqEgDOY5eOTkNCuEBREjLo?loadFrom=DocumentDeeplink&ts=1824.82)):

So what makes a company good?

Ms. Murray ([30:31](https://www.rev.com/transcript-editor/shared/12aMEpmPtdvRKmD6Rfdv1VJPCEmeUKwfEvgGalhNAUByDy2dbd0uD8v8f_LdWUW-9q-40U5no4xugatzr5RkRtLDrSw?loadFrom=DocumentDeeplink&ts=1831.42)):

Timely delivery of supplies, which is not even accurate. I have, so my order I placed initially last October, the school placed it over the summer. I'm still waiting on supplies. It's January. I still haven't gotten stuff at this point. I don't know if it's even coming. I have to talk to my supervisor and probably our maintenance department again to find out if they have any tracking. I'm going to do an activity in two weeks with models. Hopefully that will show up. If not, I'll borrow them from a coworker again. But I ordered new ones this year because the other ones are falling apart and I'm still waiting for them to come in. So to be determined. So to answer your question, the quality of the materials that I get influences things and if I like the activities, if that makes sense.

Daylene Long ([31:22](https://www.rev.com/transcript-editor/shared/5IyIzUA3uKEh8g6ypuvRlbiEsghNL1Axc4AYTlOD2dNea4GiXvMnSLHlT8sLKvInnT7BS8z4dCdh04kQ0Xi8OFP_FS0?loadFrom=DocumentDeeplink&ts=1882.81)):

Now I'm going to ask you what those activities might be or what that means to

Ms. Murray ([31:28](https://www.rev.com/transcript-editor/shared/5ao6S8rifxhC5bFcCumBBv5AnyP43b1u6n4nl4eQfYpVoIWKBd3r0POAFrb-ax-xsHVGp7BjxDAnFvhfkKavzzu8xF4?loadFrom=DocumentDeeplink&ts=1888.75)):

You. Yeah, So when I do the search, if I like the labs that come along with it or if I can see the potential to make a good lab with the materials, that's what I'll typically order from them. I don't really have a favorite company so to speak. It's just like I'll do a search and whatever's available. Usually when it comes to picking, I pick whatever's cheaper. I'll be like, all right, these are my two options, especially for a chemical. I don't really care who's giving the chemical. Whoever's chemical is cheaper, that's what I'm going to buy.

Daylene Long ([32:02](https://www.rev.com/transcript-editor/shared/ca4me9F5NrM0_PC7ilCyuU-Nnw2RBiTY9qpwu2qZEBoEef7ejC4327aof50z4DwqYLKCfHQmpuuQaECweyZciLHj69A?loadFrom=DocumentDeeplink&ts=1922.77)):

Would it help or does it, and do any of 'em that you've seen have, this is what a sample almost like ad of video of this is what the lesson looks like or would that matter? Or are you looking just at the screen and that reads good to you or is it a catalog or how do you do that? I think

Ms. Murray ([32:26](https://www.rev.com/transcript-editor/shared/iXuPK-PrFFlI4ugvF6bsQ3ey6aHTfz8wqUKkCZQgIAuGzUjFVQKs2OJ81rsgPTlJHhi5YpUDD6iM6UDlfkw5WHy5sek?loadFrom=DocumentDeeplink&ts=1946.32)):

Sometimes they include the materials. I think usually it's been, I haven't bought kits recently. I cut down on my

Daylene Long ([32:34](https://www.rev.com/transcript-editor/shared/PgM_NimHuou86EYzRp_j8YMZuAbqq1SYyICn9drtYXSCco9515CY4gCb9az1B3pUZTPD-zHbgM_suwvlCrPf46Af0wM?loadFrom=DocumentDeeplink&ts=1954.81)):

Budget as

Ms. Murray ([32:35](https://www.rev.com/transcript-editor/shared/2n3W59__rZLGCFlZbzryBZ1dKpAI6rw6f-Q2Wmma3vVV_s6g9hwxUccbuHUdLa8-pSF--GKnwCl8AzS1qp0dOpreUoo?loadFrom=DocumentDeeplink&ts=1955.5)):

We established, but from what I remember, I think they usually have materials posted online that you can kind of glance through. That definitely does help because if it's something that it already looks good, I'd probably be more willing to buy it versus one that I'm not really sure because I've definitely gotten stuff before that I'm like, oh, that sounds really cool, and then I get it, I'm like, wow, this is way too complicated. Or wow, this needs a lot of work and then I just don't have time to do it. And I'll also sometimes get one of something to test it and try it out on one class and then if it works, I'll get another one so that I have more materials.

Daylene Long ([33:15](https://www.rev.com/transcript-editor/shared/1WsHxyxgRIHO9AUCW4ztxU_Lmji634JJMWH777jQ-eP_jG1coKvfzRplnw5nfkiDzmZbZ59Z4conZAFQEOsiKTqEi0k?loadFrom=DocumentDeeplink&ts=1995.71)):

Is there any say professional development that comes with any of these?

Ms. Murray ([33:22](https://www.rev.com/transcript-editor/shared/nKqzRi9IqcQkNIz-9nrfzaQ4e-MsKepVBOsDMEBV1z6cSRUb4BOFqsadLExl4w0dcD261WI-lWzSridXXC7hUIUwwNs?loadFrom=DocumentDeeplink&ts=2002.58)):

There was. I went to one probably five years ago. We in anatomy use anatomy and clay and so I went to a training on anatomy and clay up in somewhere in North Jersey. I went with two other coworkers and we went to a whole training session on it. So that one, yes, otherwise no.

Daylene Long ([33:47](https://www.rev.com/transcript-editor/shared/E2uzgUkePs3bfMcyMtP1VM_BqAtAUfznc13EQV-sIgBkVHf_-55A3bKpMcvmSQNRfVlXFAaQ8w3xdBLOZcS6k28O1ts?loadFrom=DocumentDeeplink&ts=2027.63)):

So you said anatomy and clay and it was familiar with it, so for a couple of days and was it worth it?

Ms. Murray ([33:57](https://www.rev.com/transcript-editor/shared/N4XbGH-c7tTHfBxA1sRpkzU9wj86d7EURXAp5GdQbWKpqaPhNIPd0YFRhmvDEtonOIPgSgzRlHI8WUdShR8i2KQ8Jgk?loadFrom=DocumentDeeplink&ts=2037.89)):

Yes, yes. We only went to one of the two days. It was like a Friday and Saturday and we were only able to go to the Friday day and so it went through, I did, I still remember it because I remember that the presenter had an interesting style of going through things where he would talk and have you work and then play a video and it led me to incorporate short video clips into my teaching now to break it up because I'm being like, oh, it's really boring to hear one person talk all the time. And so I insert short little video clips to try to pull students' attention now. So yeah, in that sense was I learned a little bit more about the anatomy and clay materials. I like the structure, but I had already learned a lot about them at that point from having my students done it, having done it previous two years. But we also got a new skeleton and we needed more skeletons so it was beneficial.

Daylene Long ([34:50](https://www.rev.com/transcript-editor/shared/5g_MrkEgghfEHjNxGPZHqEHfmxAzJc9_hp_9C0E_GViJekN5N4CDX9iw1EoNCQ7KIMXFURwox42UuZsY-NWNA0s5gHk?loadFrom=DocumentDeeplink&ts=2090.63)):

Okay. I'm going to circle back a little bit, but first I'm going to ask you about or have you take a minute to talk about where you would like to see your classroom in the next five years in the sense of what could be hands-on, and if you were talking about not having a well both within budget and just pie in the sky, what would it look like?

Ms. Murray ([35:27](https://www.rev.com/transcript-editor/shared/69DS9XwHD9_jIrlDMZ3gM4YOHwwH18KN0pOmRBvIOfLd09yZmw5kf1xWEDYUUy2Lzxn0ONdINC9EGz1o1WCzeEY6rwk?loadFrom=DocumentDeeplink&ts=2127.44)):

I think definitely being able to include more hands-on activities in different units particularly we just did or I did in some of my classes I'm about to do in others myosis. I have a student teacher this year and I was joking with her that this is my seventh year trying to teach myosis and crossing over and I still have not found a lab that I like. I've made my own, I've edited other ones, still have not found something. So ideally finding things that actually work to effectively teach my students all of the concepts in hands-on ways because myosis is complicated. So last year I made a lab where they used pipe cleaners to model each step of myosis and they did not get it. It went right over their heads and I was like, all right, I spent days making this lesson that I'm going to throw in the trash and never try again because tried it three times, failed three times was like, okay.

([36:25](https://www.rev.com/transcript-editor/shared/xSbN0xk3Z6BMff0PEJnamqH-ilcG6JDOR3YzHSECIPO6D1i6BKpZbfsIChb5Pbii9vxVpLCDmjao9s7pmUbGrDSTAWQ?loadFrom=DocumentDeeplink&ts=2185.92)):

And so I'm still looking for better. I have a crossing lab for my accelerated level kids that I think works for them, but I'm still working on trying to find one for my lower level students and they offer or they present more challenges a lot of the time because the concepts have to be made more basic and there's often more behavioral concerns as well. So the lesson needs to be easy enough that they can follow. It needs to be engaging enough that they will stay on task and it can't have materials that they can throw at one another or cause danger, which it's hard to get all of those things.

Daylene Long ([37:01](https://www.rev.com/transcript-editor/shared/DWLHro2r97sGy77skSYHnc3Bt8DxsOY7fV-HYbqphVbwHGyp9O0FFxL7YmHCxQ9WON6C_zqNgQFVmn6OZDT8UeER6Oo?loadFrom=DocumentDeeplink&ts=2221.35)):

So in a theoretical amazing world, I would love to have lots of activities like that

Ms. Murray ([37:05](https://www.rev.com/transcript-editor/shared/XyfcTpTPDauBhCJDlc-cr2s8J2_rioOJBrl0NncCd6u7_0F9_WTEg1q0ZBs3ZayNIbsBVaPm6BT0VCr0B4hvhUYEtKc?loadFrom=DocumentDeeplink&ts=2225.7)):

That can be done without them causing chaos. And of course it's a mix. It's not like it's just the materials, it's the students and the materials and you have to find the right balance because I have certain groups of kids, I have a group this year that would not throw materials at one another. They would probably be okay, but they need kind of those more basic concepts. Last year they could probably handle more challenging concepts, but they would throw things at one another and so it needed to be more of they had to be vigilantly watched to make sure that they would follow along.

Daylene Long ([37:39](https://www.rev.com/transcript-editor/shared/u4wDY2DZMlsTeya-Df6mH8joRlobVAXwTUoABew4S3qkZtZbxFZym0YfLBpDc0J2IGcB-v6i8Fe3PvPv9jhZkoQiv2w?loadFrom=DocumentDeeplink&ts=2259.99)):

I

Ms. Murray ([37:40](https://www.rev.com/transcript-editor/shared/qXqdW9-M5SlZX4soWgFSlZLyOap6aTOi93xk96bpW1TM6yqTrh8ioaLw6r02vXnpzPXgrk14Raurw_jHLlR-VwkbWX0?loadFrom=DocumentDeeplink&ts=2260.02)):

Do labs. I use a lot of beans for different things. I can, can't think of an example right now. My environmental students count them when we talked about populations and tagging species to calculate potential population size. So that's one that comes to mind. And then I end up with beans everywhere and my accelerated students in environmental are a little bit older. They're more mature, mostly less likely to throw them at one another. But even stuff like that, they throw it at one another. So that's kind of my cheat to a lot of activities is that I use random materials like that. Anyway, back to your initial question.

([38:21](https://www.rev.com/transcript-editor/shared/RRv4_O7J92I52i1T9kml-jIVLh85MVaGscXHnVzoTnB9fwdAzyXJ3bDCfW1mdXLnW5qIJ-9QfdLMlqhmyUbGxQGkh_w?loadFrom=DocumentDeeplink&ts=2301.03)):

Yeah, definitely more hands-on things. I like using new technology. I liked the solar panel activity we did the other day. They got to use a real solar panel, they got to connect it to a circuit. I saw some online that had them building their own solar panels. I thought stuff like that would be cool. I have seen, I'm trying to think of what units are coming up that are things that I would aim for or strive for. Looking at our list of units, I Definitely, I need more things for photosynthesis and cellular respiration. There's a lot out there, but sometimes they don't all work, right, or you have to have certain things. So there's one, it's probably just that I don't have the materials for it that uses, you take little discs of spinach, you punch out spinach discs and you put them in a syringe and you mix it up I think with baking soda and you can see the change in numbers, but it's partially a supply issue. So getting supplies so that I could do all of those labs easily. You need lamps for a light source. Sometimes you need different colors of light. That would be another example. I did the solar panel lab yesterday and what I found,

Daylene Long ([39:44](https://www.rev.com/transcript-editor/shared/3vJmL8EduQmZ1v5-W21HadtpjYpLyhhu5631OkXD_sfVSBhS8R8Wf9UH49tmATyEn-KN7kLVZgRTgVwzpLQ_lacgTpA?loadFrom=DocumentDeeplink&ts=2384.5)):

I'm sorry. That's Okay.

Ms. Murray ([39:47](https://www.rev.com/transcript-editor/shared/TZztxQQolMCW8oEbbQtKdVFf2Mldbt4o-c0QsmVUx9LwsGU98lEciWEJkOtQEFF_4kd4bAZfNqDlOQjpfJkHlWQNyuI?loadFrom=DocumentDeeplink&ts=2387.11)):

How I wanted it to be better. I was talking to my husband about it. It was like I liked the first half of the lab where they tested the angle. I didn't like the second half. It felt too much like physics, not environmental. And so I was kind of brainstorming different things and we were like, what if you change the color of the light? This is great. That means though that I need little pieces of paper to cover the light, to change the color or to partially block the light and I have to figure out how much light can be blocked so that they can still get an accurate reading. It's also in a theoretical world, I wish I could just have all of these materials that people could be like, here's what you can use to get that lab the way you want it to be. I'd be like, yes, that's perfect. It's also ever changing. My students change every year, their understanding of the material changes every year. The world is changing, so what is theoretical now will change within a few years and my lessons will change. Along with that.

Daylene Long ([40:42](https://www.rev.com/transcript-editor/shared/8qA_tRPjnEzIJ7ukazTQT9uytqHkSfjGdSNzXfdQjupCKUv_fasmkdIrhAoQvtpBa2WVT0vFbyxZj4_s5VmDRxp07ak?loadFrom=DocumentDeeplink&ts=2442.64)):

I'm circling back for a second, is on, so when you need to want to go get some papers and you want to get beans or whatever, whether it's things you're looking for, is it out of pocket? Do you budget or do you have a budget for that? Do you go to Amazon? Do you go to the grocery store?

Ms. Murray ([41:00](https://www.rev.com/transcript-editor/shared/PiskhpMjLB_iMLzWQseyu6YNlGlyLXdY0oqqVegMC6R6fINCwZcmed-dWUbeCi1o3D4Jl4bgNJCyvuDlr51fMktXVzg?loadFrom=DocumentDeeplink&ts=2460.91)):

It's fixed. I have a lot of stuff in my prep room, so I'll usually use things that I find in there. I'll dig around, I'll borrow stuff from a coworker. Certain things I have automatically. Other things I'll bring in. So we do a lab on carbon compounds where they test substances and I bring in an egg and I use that as part of it. So I bring in some stuff from home. Certain smaller things like we do a gummy bear lab, I buy gummy bears to bring in the smaller stuff. I sometimes we'll just buy on my own bigger things I budget for, but it's hard because I have to plan in October what I need the next year before I've even taught that year. And in the last years they've started letting us edit it again in the spring as long as we stay under our initial number. So now I can go through and revise and kind of write things down, and now I've learned the trick that I add things that I don't need in the fall so that I can take them out of my budget and add in other things that I realize I need throughout the year.

([42:05](https://www.rev.com/transcript-editor/shared/M5rPPF4HiLDwoBcUrP_s7ccth_2iTMSFAICj3M7rPm46X4uoKazI4rV0ve0GAcflp7KpqEHyaBGHgC85zuqtsZJc0y0?loadFrom=DocumentDeeplink&ts=2525.27)):

So I've learned some of the tricks of the train over a few years,

Daylene Long ([42:08](https://www.rev.com/transcript-editor/shared/D8ghi8WOG8WBrTas0aKS0k43GGMStRFXOe6hj5AvaqVkL6QQtvxRe3Yv0AR_s_cqy31Fiw1gbIY6PIVg2PyHcqtp_pI?loadFrom=DocumentDeeplink&ts=2528.36)):

How to play the game,

Ms. Murray ([42:09](https://www.rev.com/transcript-editor/shared/v_O9NtXBEsUsMvTmdiNRLVcet1x0dAAwunbL-xMVRwMcYZQh4jUSa4Z3NgnCChWXLwig9FtefgFTTpVw4UwgPON2sU8?loadFrom=DocumentDeeplink&ts=2529.68)):

Yes,

Daylene Long ([42:11](https://www.rev.com/transcript-editor/shared/8PkJdVbKUIPQLPRHZzjLgCMOMa_dfnGYm1jJKiWBJf5yK1GPAI32SkN3a8UAgG_ACZcMmr6ZeEJ3YtSNzdP8V6rDBZs?loadFrom=DocumentDeeplink&ts=2531.63)):

I have my

Ms. Murray ([42:12](https://www.rev.com/transcript-editor/shared/Crp7YFQlO2k0w3h59agzTPiiga8HS1OxBFEUymVirxunfJHX_-NZcxdYSP5bfd-oU5ZK4vKK-VleBdq48XG2PoZrODg?loadFrom=DocumentDeeplink&ts=2532.5)):

List of things that I need for next year, which is pompoms, which are more expensive than one would think I need new straw bottles. We use these little squeeze bottles where the pressure forces the chemical out. They put an Alka Seltzer tablet in the bottle and they put that in a solution with BTB, and it causes the BTB to turn yellow. My straw bottle, some of them went moldy,

Daylene Long ([42:34](https://www.rev.com/transcript-editor/shared/Qi-7h43jFgCxfJieT2L1s2129wQHUCENZ9_v8uka57aqOumTHDF_iv9ohotPI5NKsBCpMNhVl24Sk05XkybsrPvkJrA?loadFrom=DocumentDeeplink&ts=2554.16)):

So

Ms. Murray ([42:34](https://www.rev.com/transcript-editor/shared/GcW32ZrUVC9FUgzhnmcvSq96VLnOwUC7Ok9_BYiouVTytRDPIDls-WU7Qz4lrlkAnHWiy8iJvrXpYklmaPlf2Jpr1x0?loadFrom=DocumentDeeplink&ts=2554.34)):

I throw those out and buy new ones and I do more agar. So those are the things that I know have to be added to my list, and then I'll see how much money I have left over. The last thing, my budget is environmental materials with a question mark because I'll see how much I have. I'll see what I can potentially find and kind of try to go from there.

Daylene Long ([42:53](https://www.rev.com/transcript-editor/shared/9n3Q4zjNl-PZKno2odYt4O4h6nOnP3cW9mHFQ_vhuKcv621WRgPGNYnvjBnZA68Ufe2hAIMntqOS1BmuiUWURO3A7AM?loadFrom=DocumentDeeplink&ts=2573.87)):

Okay. You've been fantastic and I wish I was in your classroom.

Ms. Murray ([43:02](https://www.rev.com/transcript-editor/shared/faTALVbEihjnl0Sb4JWXaoRw6PAOIf371XhRpnO1kQEskVn2cX04U4ld73eWGeXP1saL06jfjBzza5g8WZldyubiomc?loadFrom=DocumentDeeplink&ts=2582.21)):

It's mostly a fun time. My students of course always complain about everything under the sun.

Daylene Long ([43:08](https://www.rev.com/transcript-editor/shared/yvhLNdJJeeb-C55sJPTCbqQmeARmT6TexC9H7b2pTVlMDu74JbxvB950VxSBCL4ug0s-tcJkkUq-Tzv6cNZ57lrBB1o?loadFrom=DocumentDeeplink&ts=2588)):

Of course, of course, actually that we read differentiating or scaffolding or absences. How do you deal with that and is that something that, anyway, just talk about that and how I

Ms. Murray ([43:25](https://www.rev.com/transcript-editor/shared/LbSzCv3Py_2UijupPOZDxc7Cmr3is_l3_oijlKCaiCmT1sInEXKOcd4_nM-yMC4ywrIbalHunWz2CBIYDeuSvLhpKeA?loadFrom=DocumentDeeplink&ts=2605.55)):

Feel like that partially ties into what I said about I get these materials and then the worksheets aren't good and they have to be modified. I modify them for the different levels, so I'll modify them for my accelerated class and then I'll modify again for my CP level students to make it more clear to them what needs to be done. And that's typically the case. A lot of our labs are very similar across the board for both of the levels, but they've been simplified or the wording has changed for my students that struggle more or I'll go through, they were taking a quiz yesterday in my lower level class. It was open note, but I went around to certain kids and I'll just kind of cross off a few options. I'll be like, it's not going to be that, or something along those lines. What was the rest of your question? There were like three parts to it. You said it Was really? Yeah. The differentiating scaffolding and then absenteeism or

Daylene Long ([44:16](https://www.rev.com/transcript-editor/shared/Pq9nXkjH8I0OdfQ5s-E0kxhl4CHddAjJ9_a_jO5Z5MkCpPrQRZTH7UA_lwgoWcIe_EavUSbgywAH9nl3JZpbvjg8lNs?loadFrom=DocumentDeeplink&ts=2656.79)):

Catching up

Ms. Murray ([44:17](https://www.rev.com/transcript-editor/shared/c5qbVpeRgPF3xjr1vJYlmNn2Bo006dQyqmAVlLawApRhvfxllOlb8U-7At740JhRtcItpDJ4sjqoyCg4VrdChBm2vV4?loadFrom=DocumentDeeplink&ts=2657.4)):

Absent. Yes. Those are always fun, and I usually have a handful of kids that are absent frequently. Some of them are good at making stuff up, some are not. Their work is all on Google Classroom, so I always tell 'em they can find anything. My accelerated kids, their work is on their every day. They do it on their every day so they can find whatever they're missing when they're absent. I post everything for my CP students as well. The only time that it comes to be a little bit of a problem is when they do a lab. For my students that were absent from environmental yesterday, I had the data. I took a screenshot of it, I emailed it to them. I said, here's the data for the lab that you missed yesterday. If you have questions, come in to see me during lunch, we'll go over it. A few of them will be able to do on their own without any trouble. One or two of them I will be nagging about for the next week and a half before our semester ends that they need to get it done.

Daylene Long ([45:14](https://www.rev.com/transcript-editor/shared/tLEELSxckp2owGeG68CoXxLNW2Nxh_ZU5_7NDAMJsnldNj4bCyDijEUUpfmFwmdjbW-f3p1zzPFyMMAG0pHDI0PMSe4?loadFrom=DocumentDeeplink&ts=2714.52)):

Whatcha seeing on in some of the interviews that we've talked about, the levels of manipulatives or had once say that even really using a ruler seems different than it did?

Ms. Murray ([45:31](https://www.rev.com/transcript-editor/shared/wa5QRvNeCPlPFljpruG4tFOnr-uRlCCiFLMZIeIAKpXvbjqfO8RkSb0tuWAfjgrN9PrwgrxixPf-7XL9LRzewHcEjFE?loadFrom=DocumentDeeplink&ts=2731.47)):

Yeah. I have a coworker who started last year. It was her first year teaching. She was going to be absent one day and she left them an activity with her in class support teacher where they had to cut things and glue them on paper and she was like, Rebecca, I came in the next day and my room was a disaster zone. I was like, yeah, they have trouble cutting and gluing. Basic stuff like that is often hard. It takes a lot. If I plan to have them cut things out, I budget extra time because I know it will take them a while to do that, particularly for my lower level students where just sometimes following directions, processing time takes them a little bit longer, but hire students, I'll make them do it, but I account for the fact that I know it will take them time. My environmental kids used a protractor yesterday. I went around to be like, do we know how to use a protractor? Can you show me that you know how to use this just to make sure that they are doing it correctly. They do definitely need refreshers on skills that one might have thought at one point where basic skills are not so much anymore.

Daylene Long ([46:35](https://www.rev.com/transcript-editor/shared/s8p3sqbxqa-sugmPqNpw0Gsl-e09aJvdpvfXtKnk29ake3lTJXaHE7-3T-k4I4T-7jMfz2imIDdTzTWVqambD3PWrCI?loadFrom=DocumentDeeplink&ts=2795.91)):

Do you have another example of something like that?

Ms. Murray ([46:41](https://www.rev.com/transcript-editor/shared/1p17Tla184yMgHfQEexsNqiMxxoUnCD44xqDyYX1drXFjiigLOQNmB8zxPihvUb_OfTaorVJCUgrory4ZdrVwI455PU?loadFrom=DocumentDeeplink&ts=2801.55)):

We have rulers. This makes sense, right? We're a science classroom. We measure things. Some of my rulers are labeled in millimeters. Some of them are labeled in centimeters and they cannot always distinguish. So I have to carefully pick and put out all millimeter ones or all centimeter ones, and then I talk about how to read a ruler and how to write the number and how we write the number in units. So if we're measuring 10 centimeters, a hundred millimeters, let's write the correct number. So whatever valor says, I think I usually try to get the centimeter ones so that we can be like, okay, 10 centimeters, find the 10, make sure you're looking at the 10, and they'll be like, okay,

Daylene Long ([47:21](https://www.rev.com/transcript-editor/shared/wJEMboFoJacLFoBhSzB_zLEO7SIzY3DOkWhkgB1IM7SbSU_0RnUxTUKUM49Usk86pCz8kSjT28hahDe9znMR7EOHqAQ?loadFrom=DocumentDeeplink&ts=2841.72)):

Is this something that you're seeing as a trend? Is this or from even when you first started teaching to now? Is it because they are using the iPad all the time? Do you have any theory?

Ms. Murray ([47:39](https://www.rev.com/transcript-editor/shared/-8Lp3cF-2wEIZPN_8vCgulZvziU9xpSJgbOZs0KATr3iKkoxieWy-fDjRwRSS5sGMx1_k7Ay4e-5YyfmrL3HDsdBI_Y?loadFrom=DocumentDeeplink&ts=2859.4)):

I think it's gotten maybe a little bit worse, but I think they had trouble with it even a while ago, but I also taught more of my lower level kids, and that's where I see more of these problems, more of my mid and higher level kids can usually figure it out. Okay. Sometimes one or two of them will screw it up and then I'm like, did you pay attention to what you were doing?

([48:00](https://www.rev.com/transcript-editor/shared/gGUercfB_eM31FYVWjk8uFmINgb3v1qa35k0r70taN_wWp7CMKWWGtCEx7DUG-ZCBx5Ne3aMzFvuVLnfxKPDmL72knI?loadFrom=DocumentDeeplink&ts=2880.58)):

They're like, yeah, no, you didn't. The iPads, they're definitely very dependent on it. They often don't have a pencil. It's amazing. I'm like, you come to school every day, you have nothing to write with. Nothing. So they definitely are dependent. They're dependent on their technology. They're super addicted to their phones. They have trouble letting go and detaching. So I definitely, I see that. I've seen that worsening, but they were pretty bad about it when I first started too. It's easier for them to try to hide it now. They'll try to hide AirPods underneath, they'll tuck it in their ear and then they'll cover with their hair or they'll try to block it. They're not allowed to wear hats, so they can't pull the hat over it, but they'll hide a there or they'll go like this, and I'm like, I know what you're doing. I'm not that old.

Daylene Long ([48:52](https://www.rev.com/transcript-editor/shared/PBEAIoawx8AU4tFjAnyQQx1uEbuwQgu9oWHJIfrmNmuzVXIzhyPQAwBbbwpfaoT43Fq-g4_0TxdQEHU8qjphRUFbaBY?loadFrom=DocumentDeeplink&ts=2932.75)):

I can figure

Ms. Murray ([48:53](https://www.rev.com/transcript-editor/shared/nOVEscqyVTDXmawAhPqCU1c6o695pp7922UNx9JK5aCqK-0wbEiC4Wc-6jrA1Z2oJxTemKEaeJt7RvPai504O8tEjws?loadFrom=DocumentDeeplink&ts=2933.15)):

It out. So they definitely, they've gotten bad. Once you kind of get them in the habit of avoiding those things, they get a little bit better, but they need consistent reminders. My students come in every day and every day we do a do now question and the question's posted in Google Classroom. So they're supposed to come in, take out their iPad and answer the question. And some of my classes, we start and I'm like, it's January. Every single day we meet, we do the same thing. I'm like, yet I don't see enough iPads. And then they'll take them out and they get going. Sometimes they need the reminder of, I'm like, put your phone away, take out your iPad, answer the question. The same thing we do again, every single day that we start. That

Daylene Long ([49:37](https://www.rev.com/transcript-editor/shared/f8EJzG4tt39F3v3IBvyEd4DoxyqOjYwYc9Tw1kWkyios4G5vlvoPftctEQNsY4xnbKdaRvgsN56oNyxdEg-ZZXnwiNA?loadFrom=DocumentDeeplink&ts=2977.54)):

Actually is a trend that has been, some have called a motivation. That intrinsic motivation has changed. I don't want to put words in your mouth, but is kind of, or just forget what they're doing. Yeah,

Ms. Murray ([49:53](https://www.rev.com/transcript-editor/shared/kCR4Jzw7V-MWQPfz2PlKnioargGB53RZkZ7xyoP5700CCRYR9HUHxjPmvtjBPNOqczcnLHwyBTuVK5oPGeuPJBYuzF8?loadFrom=DocumentDeeplink&ts=2993.62)):

They really do. I'm like, are we ready? So I'm still like grumble. There's always a few grumbles, but some of them, and I don't want to say that they all like that. Some of them are really good and some of them are hard workers, and they'll come in and they'll answer the question before the bell even rings, and they'll hang out and they'll wait. I had one girl during, I think it was the covid year or the year after that, she had a book with her and she'd finish her work and she'd sit there and she'd pull out the paper book and read, and I was like, wow. Anybody do that anymore?

Daylene Long ([50:26](https://www.rev.com/transcript-editor/shared/BtLRwJSgtl_seGEIBVqVwEklc1XRMox1sskPliFbmPF0HlXLpxiu5lPN2jHV0avtXziBNtxS43syVBL5HRAZrOjndEQ?loadFrom=DocumentDeeplink&ts=3026.17)):

Okay, well we'll wrap up here, but I want to give you one more shot to say that we work with companies of all sizes and truly are looking at saying, okay, this is our world's evolving, our lifestyles evolving, and it's a whole new world and it's going very quickly. What would you say to 'em?

Ms. Murray ([50:55](https://www.rev.com/transcript-editor/shared/k50SYcMzh00eZ6jB7aWaZtgnTWusXe-0by4faNOsRZq5kXfr_-Yg9sxeZyPhs0eQS0pa1eB6YYWl6FXqv3xHkiuCfrc?loadFrom=DocumentDeeplink&ts=3055.28)):

The differentiation in lab materials that are provided would be really helpful, and I think a lot of the time they make materials and they're very theoretical. I could look at something and be like, yeah, in theory, this lab is great, but in actuality it's not going to work in my room. So having different options and there's different websites that have teachers collaborate or upload things, stuff like that's useful. One of the reasons I think I like the Gizmo website is because a lot of their worksheets that go along with the activities are actually really good. I don't have to make a lot of changes, so I can go and edit a couple of things and it's set and it's ready to go. Other things that I buy, it's like the materials here are great, but I have to make a whole lesson to go along with it. So create a variety of activities that could potentially go with materials and creating different levels, because sometimes they're way too complex and the time it takes to simplify them. I just have to make my own at that point.

Daylene Long ([52:00](https://www.rev.com/transcript-editor/shared/6KU7d03DxoAJEOGfQB0AAkSAKzwOoltvZJLzNSJR2qn9CqMiQ5e44UAaCTjnsdxQrrCYM2e_29llaWFVse-dOnUml7I?loadFrom=DocumentDeeplink&ts=3120.32)):

Fantastic. No, thank you. Thank you very much.

Ms. Murray ([52:04](https://www.rev.com/transcript-editor/shared/JdinDvNpCNLP6RaTlc8O9WJajkx4bA2ycHqjEfB95Cc4wKhJijPNARteexhtWCOhH9WfYi5Wh6sFTqBtDzIjGveoi8c?loadFrom=DocumentDeeplink&ts=3124.4)):

Yeah, happy To help. I am actually going to stop

Daylene Long ([52:07](https://www.rev.com/transcript-editor/shared/Wh6S06EihSaNtumdFRd-s9AIX5ZLFblg_HyoxicbwHPI8vrHROrfXM_iXrLybZ6gLHXHz5eI4ObJV1cszDEd6m3dx0w?loadFrom=DocumentDeeplink&ts=3127.64)):

Recording right now.