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00:00:00.000 --> 00:00:13.399
Hi, I'm Meg Richard, a Teaching Channel Laureate and a Teaching Channel NGSS Sq
uadsters.
00:00:13.399 --> 00:00:18.559
And recently, I invited the camera into my classroom to show how I do active le
arning.
00:00:18.559 --> 00:00:20.079
I thought it might be helpful to you.
00:00:20.079 --> 00:00:25.159
In a science class, so often we're told that we need to be doing labs and lectu
res, and
00:00:25.159 --> 00:00:28.860
with that NGSS shift, things have started to look a little different in my room
00:00:28.860 --> 00:00:30.139
So I hope that you enjoy this.
00:00:30.000 --> 00:00:33.759
glimpsed into my classroom and that maybe you're able to take away a thing
00:00:33.759 --> 00:00:35.159
or two for your own.
00:00:35.159 --> 00:00:37.159
So, I'll go, then you go.
00:00:37.159 --> 00:00:42.880
It goes, symbiosis is any relationship between two species living closely toget
her
00:00:42.880 --> 00:00:48.600
where one receives a benefit.
00:00:48.600 --> 00:00:50.600
And you have two choices.
00:00:50.600 --> 00:00:55.600
You can either do benefit, like you're making it rain, or benefit.
00:00:55.600 --> 00:00:56.879
Jesus, Matt.
00:00:56.879 --> 00:00:59.879
So, for the dance, it's a series of systematic.
00:01:00.000 --> 00:01:04.260
gestures that corrects their preconceptions or misconceptions and
00:01:04.260 --> 00:01:09.119
helps them to construct a body of knowledge. Why a dance? One, it's
00:01:09.119 --> 00:01:13.039
different. Two, it gets their bodies engaged. Three, it plays to different
00:01:13.039 --> 00:01:17.040
learning styles. And four, if you haven't read the book Teach Like a Pirate, it
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00:01:17.040 --> 00:01:21.200
 really takes students out of their comfort zone and when you're out of your
00:01:21.200 --> 00:01:25.920
 comfort zone you're gonna remember something. So it's a little bit piratey,
00:01:25.920 --> 00:01:31.000
it's a little bit dancing and you're gonna see it now. Should we try it togethe
00:01:30.000 --> 00:01:47.000
So it is, symbiosis is any relationship between two species living closely toge
ther where one receives a benefit.
00:01:47.000 --> 00:01:49.000
Nice job, ladies and gentlemen.
00:01:49.000 --> 00:01:56.000
Okay, now that we've learned the definition of symbiosis, can anyone tell us th
e definition?
00:01:56.000 --> 00:01:58.000
Word for word, without looking at the board.
00:01:58.000 --> 00:02:00.000
Oh, Abby, would you like to share?
00:02:00.000 --> 00:02:01.960
Alright, yes, let me put you in my chair.
00:02:01.960 --> 00:02:05.039
Okay, the living video assists any relationship
00:02:05.039 --> 00:02:07.480
between two species living closely together
00:02:07.480 --> 00:02:10.000
where one receives benefit.
00:02:10.000 --> 00:02:11.920
Oh my gosh, did you see her twirl?
00:02:11.920 --> 00:02:14.760
Very nice job, Addie, thank you Addie.
00:02:14.760 --> 00:02:16.120
One of the things that can be tricky
00:02:16.120 --> 00:02:19.399
about using gestures in the classroom is comfort.
00:02:19.399 --> 00:02:21.520
 So typically when I'm introducing active learning
00:02:21.520 --> 00:02:24.639
 I use gestures first because I talk to them
00:02:24.639 --> 00:02:26.079
about modifications.
00:02:26.079 --> 00:02:28.520
Not every kid is going to go full out
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00:02:28.520 --> 00:02:30.079
pseudopod or cilia.
00:02:30.000 --> 00:02:34.119
but there are lots of ways to differentiate. If you have a kid in your
00:02:34.119 --> 00:02:37.559
 classroom who's not comfortable being big and out there and drawing attention
00:02:37.559 --> 00:02:40.840
to themselves, you know, I tell them everybody can do it with their fingers.
00:02:40.840 --> 00:02:45.159
You can make the motions, pseudopods, ciliates, whatever they're comfortable
00:02:45.159 --> 00:02:50.440
with, and they're still doing it. They're still moving, they're still engaged,
and I
00:02:50.440 --> 00:02:54.840
think it's the ability to still have bodies and minds moving at the same time,
00:02:54.840 --> 00:02:58.920
 still playing to the kinesthetic learning style, but also making sure
00:02:58.920 --> 00:03:01.920
 students are comfortable.
00:03:00.000 --> 00:03:03.640
because if they're comfortable we know that they're gonna learn better. So don'
00:03:03.640 --> 00:03:07.920
be afraid to go ahead and implement the strategy but also implement it in a way
00:03:07.920 --> 00:03:12.039
that makes kids comfortable and by the end of this exercise you're gonna notice
00:03:12.039 --> 00:03:16.200
that everyone's engaged and everyone's doing it. I also share with kids that I
00:03:16.200 --> 00:03:19.200
am the biggest nerd in the classroom. I mean let's be real I have science cloth
es.
00:03:19.200 --> 00:03:23.159
So I tell them I'm like if I'm doing it and I'm out there and I'm the nerdiest
00:03:23.159 --> 00:03:26.280
person or the weirdest person in the classroom everybody's gonna be looking
00:03:26.280 --> 00:03:32.000
at me. They're not looking at you and that also helps to increase comfort.
00:03:30.000 --> 00:03:34.800
levels in my classroom. The protists cannot be classified as plant, animal, or
00:03:34.800 --> 00:03:39.279
 fungus, but the other really, really cool thing is they're most commonly
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00:03:39.279 --> 00:03:43.960

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characterized by the way they move. So for this reason, when we learn about
00:03:43.960 --> 00:03:51.280
protists, I think that we should move like a protist. The first group of protis
ts I
00:03:51.280 --> 00:03:56.399
want to talk about are the pseudopods. Now pseudopod is a cool, cool, cool word
00:03:56.399 --> 00:04:01.920
because that first part, pseudo, does anybody know the root?
00:04:00.000 --> 00:04:01.639
Pseudomeme.
00:04:01.639 --> 00:04:02.480
Ellen.
00:04:02.480 --> 00:04:03.299
False.
00:04:03.299 --> 00:04:04.139
False.
00:04:04.139 --> 00:04:07.159
And then pod is referring to its...
00:04:07.159 --> 00:04:08.000
Bailey?
00:04:10.079 --> 00:04:10.920
It's okay.
00:04:10.920 --> 00:04:12.359
Does anybody have a mouth?
00:04:12.359 --> 00:04:13.199
Anna?
00:04:13.199 --> 00:04:14.039
Feet.
00:04:14.039 --> 00:04:14.859
Feet.
00:04:14.859 --> 00:04:17.520
So pseudopod move with these false feet.
00:04:17.520 --> 00:04:22.280
They are a cell that has these two long appendages
00:04:22.280 --> 00:04:24.879
that reach out and grab their food
00:04:24.879 --> 00:04:26.760
and then pull their food into themselves.
00:04:26.760 --> 00:04:27.600
That's really scary.
00:04:27.600 --> 00:04:29.920
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From this day forward.

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00:04:30.000 --> 00:04:36.239
forever. If I run into you at a grocery store, if I run into you at a sporting
00:04:36.239 --> 00:04:41.180
game, if they let teachers out of the school building and I see you, if I say
00:04:41.180 --> 00:04:45.960
the word pseudopod, what I want you to do is I want you to reach forward like y
ou
00:04:45.960 --> 00:04:55.840
have two false feet and go pseudopod, should we try it? Yeah. So if I said the
00:04:55.840 --> 00:04:59.040
word pseudopod,
00:05:00.000 --> 00:05:10.760
 Then you would make the motions of a pseudopod, which would show me that you un
derstand that
00:05:10.760 --> 00:05:23.840
a pseudopod has two pseudopods that it moves with.
00:05:23.840 --> 00:05:28.840
Flagella! Flagella! Flagella!
00:05:30.000 --> 00:05:35.000
Flagella, flagella, woo!
00:05:35.000 --> 00:05:38.000
To show me that you understood the function of a flagella.
00:05:38.000 --> 00:05:44.000
Flagella, flagella, woo!
00:05:44.000 --> 00:05:47.000
Cilia, cilia, cilia, cilia!
00:05:47.000 --> 00:05:49.000
Not if we're just talking about pseudopods.
00:05:49.000 --> 00:05:52.000
Pseudopods!
00:05:52.000 --> 00:05:55.000
Only if we're talking about cilia.
00:05:55.000 --> 00:05:58.000
Cilia, cilia, cilia, cilia!
00:05:58.000 --> 00:06:00.000
Which we find on the ciliates.
00:06:00.000 --> 00:06:01.000
 Parasite!
00:06:01.000 --> 00:06:02.000
Parasite!
00:06:02.000 --> 00:06:03.000
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Parasite!

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00:06:03.000 --> 00:06:04.000
Parasite!
00:06:04.000 --> 00:06:05.000
Parasite!
00:06:05.000 --> 00:06:06.000
Parasite!
00:06:06.000 --> 00:06:07.000
Parasite!
00:06:07.000 --> 00:06:08.000
Parasite!
00:06:08.000 --> 00:06:09.000
Parasite!
00:06:09.000 --> 00:06:10.000
Parasite!
00:06:10.000 --> 00:06:11.000
Parasite!
00:06:11.000 --> 00:06:12.000
Parasite!
00:06:12.000 --> 00:06:13.000
Parasite!
00:06:13.000 --> 00:06:14.000
Parasite!
00:06:14.000 --> 00:06:19.200
So when incorporating active learning in my classroom, I think of it like a sen
sory input
00:06:19.200 --> 00:06:22.079
as that first piece or exposure to something.
00:06:22.079 --> 00:06:25.120
And you can use it at any point in the instructional sequence.
00:06:25.120 --> 00:06:28.479
But once you give them that sensory input, then they're going to be able to mak
e meaning
00:06:28.479 --> 00:06:29.479
of it.
00:06:29.479 --> 00:06:30.479
And if we're talking about...
00:06:30.000 --> 00:06:35.119
the pseudopod, the false foot, and they remember the word pseudopod, then I'm a
ble to have and
00:06:35.119 --> 00:06:39.199
 construct that conversation around, okay, well why would it be going like this?
What's taking
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- 00:06:39.199 --> 00:06:45.359 its two giant false feet and engulfing its food and sucking it in? It's a sensory piece that then
- 00:06:45.359 --> 00:06:50.399 they can make meaning out of. There's also a lot of studies done that say stude nts make exposure to
- 00:06:50.399 --> 00:06:58.319 at least something active and use it as an attention getter
- 00:06:58.319 --> 00:07:02.400 or use it as a song that we sing at the end of the day, I can make meaning out of it.
- 00:07:00.000 --> 00:07:03.119 the end of class or use it as something that they're exposed to time and time
- 00:07:03.119 --> 00:07:08.039 again, I find that when they take their test they've gotten that exposure more
- 00:07:08.039 --> 00:07:12.600 than they would if I just did an inquiry lab investigation, driving question board,
- 00:07:12.600 --> 00:07:17.840 revisiting guiding questions. It's one more exposure in a new and different way
- 00:07:17.840 --> 00:07:22.440 that allows it to be a sensory activity. Thank you so much for coming to visit my
- 00:07:22.440 --> 00:07:26.479 classroom. I hope that you saw something that was helpful to you and I hope that
- 00:07:26.479 --> 00:07:29.920 you had the opportunity to implement active engagement in your.
- 00:07:30.000 --> 00:07:33.440 classroom. If you have any questions, hopefully we can connect on Twitter. I'm
- 00:07:33.440 --> 00:07:38.199 Frizzle Richard or come visit the teaching channel at the NGSS squad or
- 00:07:38.199 --> 00:07:42.479 visit the Laureate page. Thank you!