

Formative Assessment in 11th Grade Biology Video Transcript

>> Read through about--I guess it's pronounced Seif's.

Seif's pet mouse who's had babies.

And you see there, there's several different people kind of weighing in on what they think each of these mice traits might be connected to.

How did these mice turn out to be black and white?

So just like we've done in the past, you're going to tell me first of all who you agree with and why and then put your name on it.

So make sure--now, when you say why I just don't want to hear, "Because I think he's right."

Give me an explanation of the science, the--behind what you think that a particular individual's more correct.

Formative probes are really helpful because at the beginning of the unit, you can get a real sense of what the kids came in knowing and what they came in not knowing because it's more really revealing the things that they misunderstand.

And in this particular probe, there's a comment on the baby mice about a trait being stronger and that's kind of a misconception that kids have about dominant.

They think that it's actually a stronger trait.

There's also some stuff in here about male and female and a lot of kids will think just because the father has the dominant trait that the male is somehow stronger and his traits are more dominant.

So they get kind of crossed up with things they've heard about sex-linked traits and you can just kind of quickly start to see those and that's one of the reasons I really love those because they're written in such a way that's really obvious which kids have it and which kids don't.

So, what made you think that the black was the dominant?

They didn't say that here, did they?

>> Yeah.

It's kind of like in some babies it's just going to be dominant for some, they--like the other ones with white fur, it wouldn't be dominant because their mom actually--probably gave that dominant to them and that's why they got a white fur.

>> Okay. So their mom passed the trait to them?

>> Yes.

>> So we kind of have to think about what's dominant and what's recessive here.

We just got the iPads in the Fall and so before that with the probes, I would just have the kids write it.

And another thing that I like to do is I would have them get together in groups.

So they might do it by themselves and then they would get together maybe in groups of two or groups of four and kind of hash out, "Well, here's why I agreed with so and so."

This is just kind of a different way to get the whole group involved.

This way, the entire class can see each other's answers and it's a little bit faster. So I'm going to send you the responses here and I want you to take a minute to read through them and then I want you to pick the one based on what you've heard everybody talking about, which one do you agree with most?

Our overall vote was for Alexa and that's actually correct.

Now, let me tell you something here.

Many of you all talked about because the male was black that maybe his traits were more strong, that male traits are stronger.

We're gonna go back here in just a minute and review the terms dominant and recessive.

Dominant doesn't necessarily mean stronger, it just means that it's gonna be able to cover up one of the trait.

What trait does it cover up?

>> The white?

>> Well, not the white, the recessive. Right.

I'm going to come around here in just a minute and I'm going to put a word on your back.

You're not going to know what that word is.

What you're going to do is you're going to take a piece of paper and you're going to go around to the people in the classroom, you're going to ask them only a yes or no question.

They're either going to be cell division which was the unit you all just took your test on or from this unit we just started yesterday on genetics.

You are going to ask as many people as it takes for you to figure out what your word is.

That's the nice thing about the formative, you can find out things that they know going into it but you can also make sure you know what they really came out with.

And so, you know, although some people might consider that to be summative it was still kind of formative for what we were going in here.

How much did they really remember from that unit?

Where they really applying the information the right way because if I don't know that going in then we could be completely off on the whole genetic thing.

If they didn't miss that--if they didn't understand genes and chromosomes, then they're going to have a hard time understanding the whole unit.

Okay.

>> [INDISTINCT]

>> No, you're not either one of those.

>> Of course.

>> Can you hear me?

>> Okay.

>> You're not even one of those.

>> Okay.

>> Perfect.

>> Okay? Okay.

>> And that's all I'd like to...

>> Am I--Am I moving whenever I'm going through?

>> I think so.

>> Am I going through anything?

>> No. You're dead.

>> Am I--I'm dead? Am I...

>> Like dead.

>> Am I specific...

>> I think you [INDISTINCT]

>> Am I--went through stage?

>> No, that's wrong.

>> No?

>> Cody, what was one of the things that helped you figure out your word?

>> Because somebody said I was inside the DNA and I was involved with a genes and the [INDISTINCT] was gene so I was either that or go to [INDISTINCT] >> All right.

You could play a word game but if you weren't taking what they were doing.

Like as I went around the room, I was trying to really listen to the kinds of questions they were asking so I could have some better sense of what they already know.

Now, I'm going to take what I know from that and try to say when I go over phenotype, what is it that they were confused about with that term?