

Name

Period

7.4.1 Assessment

Standards: 7.4.1: *I can develop a model that shows how different types of reproduction can affect genetic variation.*

Task 1: You come across a new creature/alien you have never seen before. It has large yellow eyes, blue spots on green fur, and has 6 legs. If this creature reproduces asexually, what traits would you expect to see in the offspring? What traits would you expect to see in the grandchildren of this alien? Create a model to show these results.

Task 2: Create a model to show the cross between two organisms with different traits. Choose three traits to show on the offspring.

Task 3: Construct a written explanation as to how genetic variation (differences in genes) could cause the traits shown in your model above.

Traits in Sexual and Asexual Reproduction

ANSWER SHEET

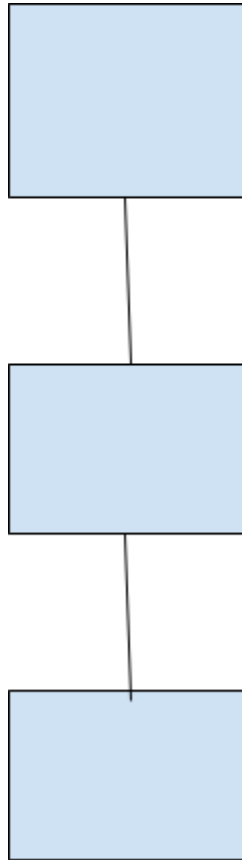
Standards: 7.4.1

I can develop a model that shows how different types of reproduction can affect genetic variation.

Task 1

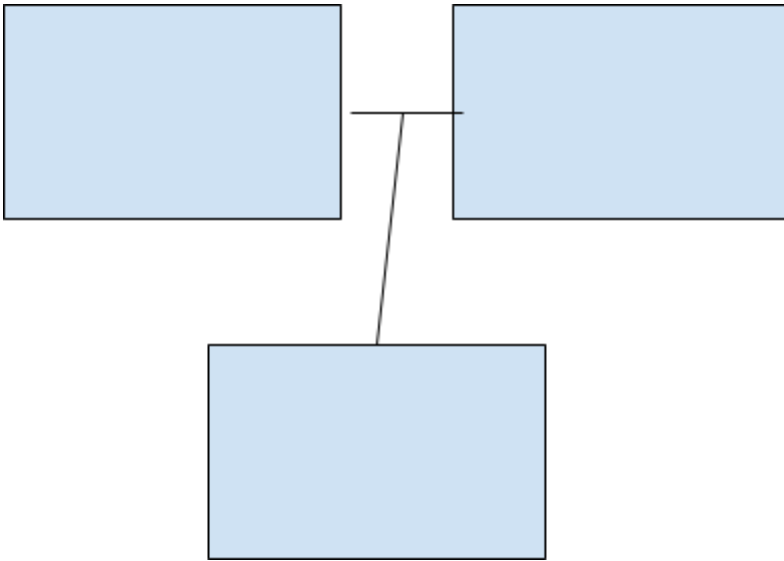
You come across a new creature/alien you have never seen before. It has large yellow eyes, blue spots on green fur, and has 6 legs. If this creature reproduces asexually, what traits would you expect to see in the offspring? What traits would you expect to see in the grandchildren of this alien? Create a model to show these results.

The model should show one parent having an identical offspring. The 3rd box, or grandchild will also have identical offspring. The students should draw a picture in each box with the traits listed above.



Task 2 (Teacher: decide what the organisms are--select something that wasn't covered in class)

Create a model to show the cross between two organisms with different traits. Choose three traits to show on the offspring.



This model should show two parents. The offspring should have a mix of the parents traits in some way. Answers will vary. They may choose 2 from dad and 1 from mom to show. Or they may mix the traits. Either one is fine.

Construct a written explanation as to how genetic variation (differences in genes) could cause the traits shown in your model above.

Answers will vary.

"When two parents that have different traits reproduce, the DNA from the mom and the DNA from the dad combine together to form a new offspring. Because there is a mix of DNA, the new DNA will code for unique traits. The offspring may have some traits that look like the mom or some that look like the dad, or even some that don't look like either parent."