

### Case 16, Challenge 1: Protect and Serve

Armor is more complicated than you thought! Before you dive in trying to solve this challenge, start by gathering some starting data. Perform the breeds below, carefully recording the results of each. Then answer the questions that follow.

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**Breed #1:** Mother with 0 armor plates x Father with 5 armor plates

Offspring Plate Number	Total #	# Females	#Males

*\*Save a male and a female offspring from this breed to use in Breed #2.*

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**Breed #2:** Female offspring from Breed #1 x Male offspring from Breed #1

The female I'm breeding has \_\_\_\_ armor plates.

The male I'm breeding has \_\_\_\_ armor plates.

Offspring Plate Number	Total #	# Females	#Males

**Breed #3:** Mother with 0 armor plates x Male offspring from Breed #1

The male I'm breeding has \_\_\_\_ armor plates.

Offspring Plate Number	Total #	# Females	#Males

Case 16: Student\_Organizer\_Explore

**Breed #4:** Father with 5 armor plates x Female offspring from Breed #1

The female I'm breeding has \_\_\_\_ armor plates.

Offspring Plate Number	Total #	# Females	#Males

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**Breed #5:** Mother with 3 armor plates x Male offspring from Breed #1

The male I'm breeding has \_\_\_\_ armor plates.

Offspring Plate Number	Total #	# Females	#Males

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**Questions**

1. What is familiar about armor?
2. What is new about armor?
3. What are your ideas about armor inheritance, given the new 1-plate version?  
Might this be a familiar inheritance mechanism, a new one, a combination?
4. What next steps might you take to test your ideas?