Name: ________________________________ Date: ____________

What is this species called? ________________________________

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Generation _____ Bar Graph

© 2014 Bethany Lau
Name: ________________________________ Date: ____________

What is this species called? ____________________________

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Generation _____ Bar Graph

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What is this species called? **GOOGLY EGGIES**

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**Generation _____ Bar Graph**
Name: ________________________________ Date: ____________

Species Name: _______________________________________

Write your observations for Generation ____:

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________

___________________________________________________
Name: Student A

Species Name: GOOLY EGGIES

Write your observations for Generation __1__:

There are green, blue, and yellow eggs.

They have funny looking eyes.

Their food looks like confetti.

They are not moving.

All of the eggies are the same size.
Teacher Instructions Page 1:

This activity is designed to address the following NGSS Heredity Standards:
3-LS1-1.Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
3-LS3-1.Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
3-LS3-2.Use evidence to support the explanation that traits can be influenced by the environment.
3-LS4-2.Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

This activity does involve setup. Print 3 copies of the Graphing Sheet and Observations Sheet for each student in your class.

The teacher needs the following:
25-30 blue plastic easter eggs, 25-30 green plastic easter eggs, 25-30 yellow plastic easter eggs (you can make do with just 10 blue, 10 green, 10 yellow, you will just have to re-use them in each generation)
googly eyes (small and big)
small pieces of cut up yellow and blue pipe cleaners
5 identical plastic bins (clear bins work well)
any type of confetti
Use hot glue to glue googly eyes to the longer thinner side of the plastic easter egg as seen in the picture on the right. Most plastic easter eggs have a tiny hole that you can refer to as “the mouth”. Give most of the eggs small googly eyes, but put large ones on a few (less than 10) eggs.

Inside each egg, place small pieces of pipe cleaners to match their color. Use two blue pieces for each blue egg, use two yellow pieces for each yellow egg, and a blue and a yellow for each green egg.
Teacher Instructions Page 2:

- Place 25 eggs (several of each color, all small eyes) in a plastic bin and label it “Generation 1”. You need 1 egg for each student in your class.
- Do the same for 2 other bins and label them “Generation 2” and “Generation 3”. Keep the number of each color almost the same, but not exactly the same. For Generation 3, place some of your large eyed eggs.
- Take your other 2 empty bins and label them “Generation 2” and “Generation 3”. The labels are really important as you will see later on in these instructions.
- Hide the Gen 2 egg-filled bin and both Gen 3 bins.
- In the Gen 1 bin, add in some confetti

Sample Lesson Schedule:

- On Day 1: Tell students that you just got a shipment in of a new, unstudied species! Pull out the Generation 1 bin and ask them to come up with a name for the new species. Sample ideas: Eggies, Eggles, or anything totally random and funny that a student makes up (avoid a name that is too similar to a student’s name)
- Pass out one to each student. Ask them to be careful not to open them. Count in the class how many blue, green, and yellow eggs there are and have your students record and graph their data on the first graphing page. Colored pencils work great for this. (trait variation in populations: 3-LS3-1)
- On their observations page, you could make observations together as a class. “What happens when you shake the egg? Do the eyes move? Are they all the same size?” Have them record their observations. Make sure you mention that they must be eating the confetti.
- Then, tell them that this generation’s lives are almost over. But don’t worry! As this generation dies, it releases its “seeds” to reproduce the next generation! Have the students open up the eggs and discover the “seeds” inside. “What types of seeds come from blue eggs? Green? Yellow?” Have them record their observations. (unique life cycle: 3-LS1-1)
- Have each student deposit the “seeds” into the empty Generation 2 bin. Let the bin sit in plain view, exposed to classroom light for the rest of the school day. Shake up the bin and tell them that these “seeds” will combine (two together) to grow into new eggs. Add in some confetti for “food”. For fun, you can always check once in a while during the day to build excitement/suspense.

After students leave that day, replace the seed bin with the egg filled Generation 2 bin.
Day 2: Do the same activities as Day 1. Have them count the colors and graph. In their observations, have them compare to the previous day’s graph. (traits similar to parents in populations: 3-LS3-1)

Collect the “seeds” from Generation 2 in the empty Generation 3 bin. BUT THIS TIME, place the bin with the “seeds” in the dark, inside a closet, or under a box that limits the light.

End of Day 2 after students leave: replace the seed bin with the egg-filled Generation 3 bin that has some large eyed eggs!

Day 3: The students will absolutely love the large eyed eggs! They are just plain adorable. Follow the same procedure. Count up the eggs, graph, compare to the previous graphs, record observations. This time, make note that there is a new trait!

Some eggs have a trait that isn’t observed in the parents. Ask students to suggest reasons why some eggs “grew” large eyes. Some may suggest that the large eyes might have grown to “adapt” to the low light/dark environment. (Environment influencing trait: 3-LS3-2, 3-LS4-2)

You could ask “Why is it good for these eggs to have larger eyes?” Students could suggest that in the dark, it’s harder to find their “food” (the confetti!)

Remember to have the students write down all their observations!

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