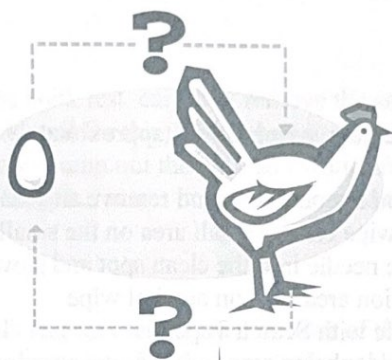


Egg-citing Egg-Speriments



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Egg-ceptional Egg Strength Tests

Supplies needed:

At least six nearly whole egg shells
Books of varying sizes and weights
12 raw eggs
Saran wrap
Trashcan
Tweezers

Procedures:

To make the egg shells for the book test, carefully remove the small end of the egg by chipping away (tweezers work well for this) at the shell in a circle until the egg will "sit-up" on its end. You will want to dump out the yolk and white and wash the egg out. Try to make six shells of similar heights. (extras are usually a good thing just in case)

For the Book Test:

Take six of your hollow shells and set them up in two rows of threes. The shells should be about an inch apart and the rows roughly the same. Have the students make a hypothesis about how many books the shells will hold or what type of books they will hold. Then slowly start stacking books on the shells. I usually start with a thin encyclopedia and then go from there. Be creative!

Another book test you can do is take 6 whole raw eggs, wrap them in saran wrap, and ask for another hypothesis about the number of books the whole eggs will hold. Then repeat the experiment above.

For the Strong Man vs. Egg Test:

Take a whole raw egg, make sure it does not have any cracks. Ask students if they think the egg will break if it is squeezed between your hands. Then (over a trash can just in case) place the ends of the egg in your palms, lace your fingers and start to squeeze. The egg will not break. I recommend putting the egg in a plastic baggy just in case something happens (which it will sometimes)

These experiments are good lead into how the egg is one of nature's strongest architectural designs, the 3-dimensional arch and why the egg needs to be strong.

Egg Porosity

Supplies Needed:

Hard boiled eggs (number depends on your groups)
Regular Food Dye (not gel)
Gloves (optional)
Newspaper
Paper towels

Procedure:

Have the kids hypothesize about whether or not eggs have holes in them. Ask them to explain why they think the way they do.
Place the hard boiled eggs on the newspaper, have the kids glove up (If wanted), and then have them place drops of food color on the outside of the egg shells. Let the eggs sit for 5-15 mins and then have the students wipe of the excess dye with a paper towel and then peel the eggs. Where their hypotheses correct? Incorrect? Have them discuss what they have observed and why it would be necessary for eggs to be porous.

What does the chick look like today?

Supplies Needed:

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21 plastic (openable) eggs (may need to do a few sets)

Paper

Pencils, map pencils, etc.

Procedure:

Have the kids draw on a small egg-shaped piece of paper what the embryo looks like on each day of incubation and then place it in one of the plastic eggs.

This activity reinforces how the embryo changes each day.

The Biggest Loser

Supplies Needed:

Small scale

Eggs in incubation

Spreadsheet

Procedure:

Label all of the eggs in the incubator. Alphabet letters or numbers work well for this. Just use either a wax pencil or a regular pencil. Have the kids pick 5 random eggs to weigh. Weigh each of these eggs everyday from the day they start incubation until they hatch. Have the students hypothesize on whether they think the eggs will gain or lose weight as the embryo grows. Have them chart the eggs progress and notice what the eggs are doing. You can choose to weigh and track all of the eggs if you would like.

Another fun weight activity is to take a raw egg and carefully separate all the parts: shell, yolk, albumen, and weigh each of the parts to see how they make up the weight of the egg.