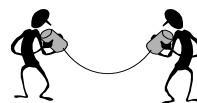




Ohio 4-H Cloverbud Connections



Spring 2009 Issue

For 4-H Cloverbud Volunteers working with grades K-2

ChickQuest: Making Science Alive

Can you hear the soft peeps from inside the chick eggs that you've been watching for 21 days? How strong is an egg? What worked and did not work in your egg catcher? Did you enjoy making or eating your Bird Nest Treats? The answers to these questions and many more discoveries are in the journey which you are about to take through a new and exciting 4-H group project.

ChickQuest: The Scientific Journey through a Life Cycle (4-H Project #167 GPM) is an adventure in the world of science, engineering, and technology (4-H SET). As a Cloverbud volunteer, you will have the opportunity to engage your Cloverbuds in learning about the life cycle of an embryonic chicken egg. According to ChickQuest, "from monitoring living eggs to observing fluffy chicks, these lively activities pique curiosity, encourage collaboration and communication, and provide young scientists with unforgettable experiences."

The Teacher Guide provides you with eighteen activities which are easily adaptable for your Cloverbud Program. ChickQuest meets and exceeds the goals of Ohio's Cloverbud program which are for children to develop:

- ☀ Self-understanding skills (self esteem)
- ☀ Social interaction skills (getting along with others)
- ☀ Decision making skills
- ☀ Learning skills (learning how to learn)
- ☀ Mastering physical skills

Children possessing these life skills are less likely to have problems with drug use, school failure, delinquency, and depression later in life.

What is ChickQuest: The Scientific Journey through a Life Cycle? It is mystery, excitement, anticipation, and it is available through your Ohio State University Extension Office. Contact your 4-H Extension Educator and/or 4-H Program Assistant and with your Cloverbuds, begin to solve the mystery of ChickQuest.

Source: ChickQuest: The Scientific Journey through a Life Cycle, Science Alive, 4-H School Enrichment.

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Click it, Print it, Do it!



www.cloverbudconnections.osu.edu

Are you looking for an exciting activity to teach 4-H Cloverbuds about Science? This quarter you will find a Hatching Chicks activity on-line and ready for you to print! The activity sheets include an activity you can do as a group to show how a chick hatches from an egg.

Experiment with Eggs

How Strong Is an Egg?

Hens lay eggs and sit on them. They also turn the eggs several times a day to keep the baby chicks from sticking to the inside of the shell. The egg shell must be strong enough to support the hen's weight but thin enough to let the chick break it and get out.

According to Chick Quest, an OSU Extension Science Alive 4-H School Enrichment Teacher Guide, "the dome shape gives an egg incredible strength....It can support a heavy load because the weight is evenly distributed both horizontally and vertically. When a load is placed on top of it (like a chicken sitting on it), the heaviness is carried down along the curved walls to a wide base (p. 26)."

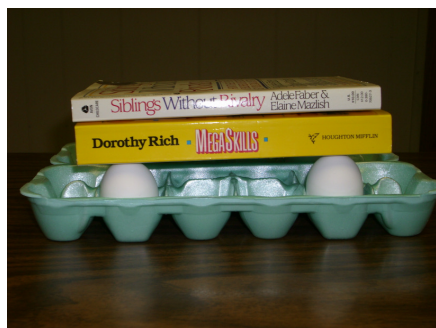
Try this:

Materials: Two egg cartons
Four eggs
Hard backed books
Scissors

1. Use scissors to cut the flap and lid off both egg cartons and discard them.
2. Set the remaining (bottom part) of the egg cartons side by side.
3. Place two eggs in each carton, equal distances apart. Since the books will sit on top of the eggs, use a book to estimate and adjust the distance between the eggs. Each egg should support the weight of one corner of the book. See photo.
4. Ask the Cloverbuds how many books they think the eggs will support without breaking.
5. Stack the books on top of the eggs.
6. Discuss the results. How many books could you place on top of the eggs before they broke?
7. Will hard cooked eggs hold more or less weight than fresh eggs? Repeat this experiment with hard cooked eggs to find out.

Source: *Chick Quest Teacher Guide, Science Alive, 4-H School Enrichment, Pages 25 and 26.*

*Submitted by: Joyce Shriner, Extension Educator,
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Building and Testing an Egg Catcher

Materials needed: 8 sheets of paper per team (recycled paper is fine), 24 inches of masking tape per team, one yard stick, fresh eggs, trash can, large container for testing (tote or box), plastic bags to line container.

Introduction – Billions of eggs are produced and distributed to grocery stores every year. How do today's farmers collect hen eggs? By hand? By machine? In this activity, Cloverbuds will be engineers designing, building, and testing an egg catcher. If a farmer's hens produce hundreds or thousands of eggs a day, the farmer can't pick up each egg by hand.

Imagine – How can the farmer collect the large number of eggs that the chickens lay every day? Help the Cloverbuds imagine some solutions. Brainstorm a variety of ideas how chicken eggs can be safely caught and collected.

The Problem – Design a free-standing egg catcher using 8 sheets of paper and 24 inches of masking tape that will safely catch an egg dropped from the height of 1 yard (3 feet).

Develop a Plan – Divide the Cloverbuds into teams of three or four. Provide each group with materials for building an egg catcher. Ask the Cloverbuds what they can do with paper to cushion, catch and safely collect an egg? The teams might need some help from an adult or teen leader to assist them by asking questions and providing an additional pair of hands. Cloverbuds might want to give their egg catcher a fun name. i.e. The Egg-traspecial Egg Catcher 8000.

Create – Using the materials provided create and build a free-standing egg catcher.

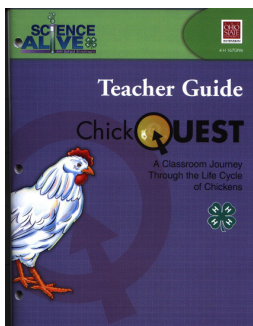
Test – The adult leader will now test each of the egg catchers, one at a time. Place each egg catcher in a large container that you have lined with plastic. If you break an egg, replace the plastic liner before the next test. Keep a garbage can close for easy cleanup.

The leader should drop an egg from the height of one yard (3 feet). Successful egg catchers prevent a cracked or broken egg. For those egg catchers that make it through the first round, administer a second test, dropping the egg from a greater height.

Identify and Improve – Help the Cloverbuds identify characteristics of successful designs. What worked and did not work in your egg catchers? What did the successful egg catcher designs have in common? As time permits the Cloverbuds can redesign their egg catchers and test them again.

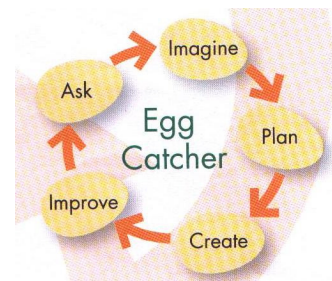
Conclusion – Engineers design solutions to problems. They apply science and engineering principles as they design and invent solutions. Much like what you did today – engineers use five simple steps: **ask, imagine, plan, create** and **improve**.

Adapted from: Chick Quest, OSU Extension Publication 4-H 167GPM.



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www.4Hchickquest.org



Campus Connections

Hello Ohio CloverBudders! It feels good to make another 4-H Cloverbud Connection with you!

As a reminder, some of the key objectives of the 4-H Cloverbud Program are to increase children's self-understanding and social-interaction skills. One avenue for achieving these skills is to help them cope with problems and conflict.

Children at one time or another will have conflicts with each other (sharing materials or play space) or with themselves (understanding material or have difficulties participating) when involved in 4-H Cloverbud activities. Conflict can hinder the development of self-understanding and social-interaction skills when not handled properly. When working with 4-H Cloverbud youth, we can help them by using the following conflict resolution techniques:

- 1) **Approach children calmly** - a peaceful, calm adult demeanor will help them sort through the problem to reach a solution.
- 2) **Acknowledge their feelings** - simply state the feelings you observe to help children identify and understand why they are having feelings of frustration or anger.
- 3) **Gather information about the problem** - listen to each child's point of view. This will help you understand the situation as the children see it and to discover with them about what to do next.
- 4) **Restate the problem** - repeat what the children have said to convey that their point of view has been heard; it also allows more time for emotions to settle.
- 5) **Ask for feedback and ideas to solve problems** - open a dialogue with the children to consider various solutions to the problem; help them consider the consequences of their suggestions.
- 6) **Give support** - be there to help the children carry out the solution (Graves, 1996).

Children who learn how to problem solve and deal with conflict are self-confident. They also expand their self-understanding and social-interaction skills.

Thanks for all you do as a 4-H Cloverbud volunteer to help improve the lives of children throughout Ohio!!

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Bird Nest Treats

Ingredients

1 T. Margarine
15 Large Marshmallows
2 c. Mixed Cereals - Be creative, use a mixture of rice, O's, squares, flakes or whatever you have in regular or chocolate flavors. Small amounts of broken pretzel sticks or popped popcorn could also be used.
Egg shaped candy
Pretzel rods (optional) - These can be used to represent tree limbs when serving the treats. *See photo.*



Spray a muffin pan (preferably silicone) with non-stick spray.

Place the margarine and marshmallows in a microwave safe container and microwave on high for 1 minute. Stir. If not melted, microwave another 30 seconds. Stir. Add mixed cereal and stir.

Spoon the cereal mixture into the muffin cups, depressing the center to allow space for the bird eggs. After the nests cool and become firm, pop them out of the muffin cups. Add the candy "eggs." Serve with a glass of milk. Recipe makes approximately four nests.

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