

Title: WHERE DO CHICKS COME FROM 2nd grade

Subject: Language Arts/Science/Technology

Topic: Chick Embryology Unit

Designer: Lucia Haselhorst

National Standards:

Reading-standard 1: The student reads and comprehends text across the curriculum.

Benchmark 3: The student expands vocabulary

Benchmark 4: The student comprehends a variety of text (narrative, expository, technical, persuasive.)

Writing-standard 1: The student writes effectively for a variety of audiences, purposes, and contexts.

Benchmark 2: The student writes expository text using the writing process.

Indicator 3: Writes by using personal experience and/or observations to provide information from varied resources. (Ideas and Content: prewriting, drafting, revising: N,E,T)

Indicator 4: Expresses information in own words using complete sentences (Ideas and Content: prewriting, drafting, revising: N,E,T)

Science-standard 1: The students begin to develop the physical and intellectual abilities of scientific inquiries.

Benchmark 1: The student will be involved in activities that develop skills necessary to conduct scientific inquiries.

Life Science-standard 3: The students will begin to develop an understand of biological concepts.

Benchmark 1: The student will develop an understanding of the characteristics of living things.

Technology-Standard:

FOR STUDENTS

Communication and Collaboration 2:

The students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Research and Information Fluency 3:

Students apply digital tools to gather, evaluate, and use information.

Technology Operations and Concepts 6:

Students demonstrate a sound understanding of technology concepts, systems, and operations.

FOR TEACHERS

Facilitate and Inspire Student Learning and Creativity 1:

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

Model Digital-Age Work and Learning 3:

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

Engage in Professional Growth and Leadership 5:

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

Content Understandings:

Students will understand:

- how a chick develops.
- how an incubator works and why it's used in schools and farming.
- why store bought eggs cannot develop into chicks.

Students will know:

- what is inside an egg.
- the vocabulary and terms such as: air space, yolk, germinal disc (spot), shell, albumen, chalazae, shell membrane, fertilization, embryo, fetus, amniotic sac, candling, incubator, incubation period, thermometer, humidity, wet and dry temperature.

Students will be able to:

- point out the parts of an egg and discuss the importance of their function.
- research on-line and books about other egg laying animals.
- keep a written journal on the development of a chick.
- respond to higher level questions about the development of a chick using the vocabulary they have learned.

Technology Understandings:

Students will understand:

- that technology is not the only way to get information and that it is not always a reliable source.
- that technology is essential to know how to use to be a well rounded learner and stay competitive with the rest of the world.

Students will know:

- about the proper ways of using technology.
- the reliable sources they can use on-line such as: .edu and .org websites.
- that technology is an expansion of what you read and you hear from people.

Students will be able to:

- navigate through the Internet to retrieve information and images on other egg laying animals.
- create a slide show using Microsoft Office Power Point that is available on the school's computers.
- use a laptop's keys to present and inform other students of the animal they researched.

Essential Content Questions:

- Why is it important to keep the correct temperature in the incubator for the fertile eggs?
- What are the factors for a successful hatching?
- Why is candling an important thing to do while keeping fertile eggs in an incubator?
- How is an incubator like a hen?
- Imagine that you were a chick in your eggshell, if your mother hen was not turning your egg once in a while, what might happen to you?
- What will happen if the hen stays off her eggs too long?
- To what part of a car would you compare the *chalazae*? What purpose does it serve in the egg?
- What is the function of the air cell (sac)?

Essential Technology Questions:

- How do you compare and contrast on-line research to book research?
- Why do you have to be aware of the research you get from the Internet?
- How does technology change thinking? What are the pros and cons?

Assessment Evidence:


Content Performance Task:

- The students will keep a written journal on the stages of develop during the 21 day the incubation period. Before they can turn in their journal to me, they will make a self assessment using the *Chick Journal Checklist*. They can go back and make corrections. **(LINGUISTIC INTELEIGENCE)**



Grade 4 Yearbook Program
Summative Projects

Chick Journal Checklist



www.khanacademy.com

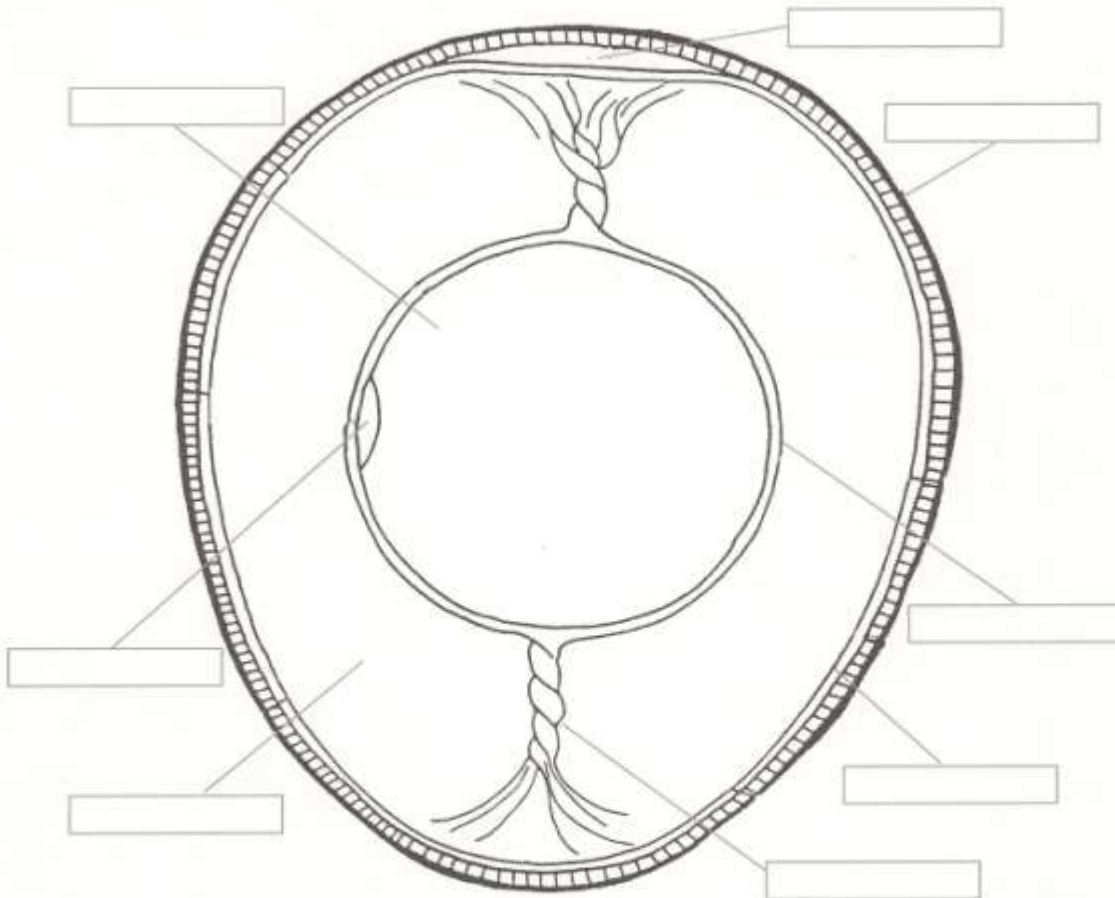
TASK	Completed? YES	Completed? NO
I wrote the date of my journal entry.		
I copied the entry correctly from the overhead. All words are spelled correctly.		
I used neat handwriting.		
I used capital letters and periods.		
I read my journal entry to a partner.		

Name _____

--After the students have listen to pages of the book *A Chick Hatches* by Joanna Cole, gone through the vocabulary, and have examined the inside of an egg, I will give the students the worksheet *Egg Parts*. **(COMPREHENSION/KNOWLEDGE)**

Egg Parts

Color each part of the egg a different color and label each part of the egg.



Use each word only once:

air cell (sac)
germinal disc (spot)
vitelline membrane

albumen or white
membranes (shell membrane)
yolk

chalaza
shell

--When they have finished with the worksheet *Egg Parts*, they will use it to write then record themselves on tape recorder using the vocabulary. **(INTERPERSONAL INTELLEGENCE/SYNTHESIS)**

EXAMPLE:

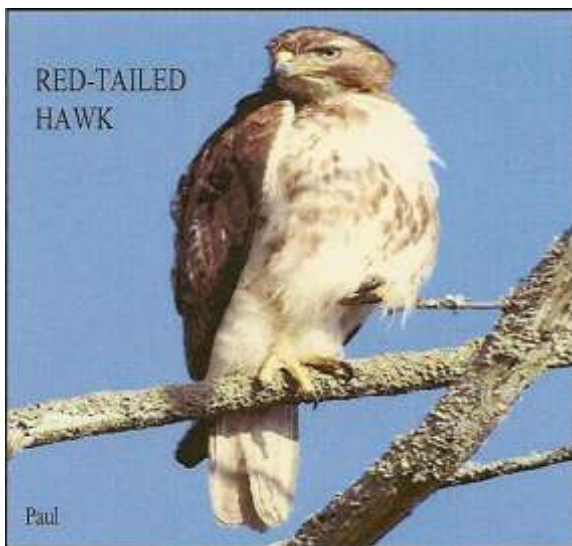
Hello. My name is Lucia. I am a chick that is inside an egg. I have been inside it for 21 days. My shell is protecting me and is helping me grow. It has tiny pores that allows in humidity so that I won't stick to the shell. The yolk is food for me. My body obsorbs the nutrients from it...

Assessment Evidence:

Technology Performance Tasks:

--The students will create a slideshow of three other egg laying animals by using Microsoft Office Power Point. The student's will present their slideshow to the rest of the class. **(APPLICATION/SYNTHESIS)**

EXAMPLE :



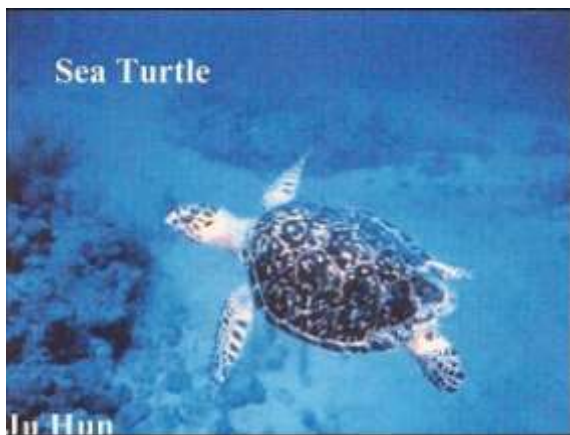
The Red tailed hawks eggs take five weeks to hatch.

The dad goes to get food while the mom babysits.



Snails eggs are laid on muddy leaves.

Snails eggs are laid in groups around 20.



A sea Turtle lays eggs in the ground and hides the eggs then goes to the sea.

A sea turtle lays eighty to one hundred eggs at a time.



Mother Pill bugs lay yellow egg .

Baby pill bugs have soft white bodies.

--The following sheet will serve as a guide to the students when researching about their animals.

Egg Laying Animal Research

Name Mrs. Haselhorst

Name of Animal chicken

1. Type of animal (bird, reptile, etc....) bird

2. Description of animal beak, comb

feathers, 2 legs

white, brown, black

4 toes or claws

3. Animal's habitat (where it lives, type of home, what it eats, etc...)

chicken coop, farm

nests, brooder, seeds

sunflower seeds, chick food

Insects, worms

4. Egg laying facts the hen lays her eggs

in a nest the hen sits on her

eggs to keep them warm, sometimes

she leaves for a little while

the hen turns her eggs over

It takes 21 days for the chicks to hatch

5. Other interesting information on your animal _____

when they first hatch their
feathers are wet

they won't develop if it is (to)
hot or (two) cold

the chicks are really
(squashed) in the egg

they look cute when they
are fluffy

--The following rubric will be given to each student to guide them for a good quality end product. I will use the same rubric for my assessment of their work.

Multimedia Project : Egg Laying Animals

Teacher Name: **Mrs. Haselhorst**

Student Name: _____

CATEGORY	4	3	2	1
Sources	Source information collected for all graphics, facts and quotes. All documented in desired format.	Source information collected for all graphics, facts and quotes. Most documented in desired format.	Source information collected for graphics, facts and quotes, but not documented in desired format.	Very little or no source information was collected.
Content	Covers topic in-depth with details and examples. Subject knowledge is excellent.	Includes essential knowledge about the topic. Subject knowledge appears to be good.	Includes essential information about the topic but there are 1-2 factual errors.	Content is minimal OR there are several factual errors.
Mechanics	No misspellings or grammatical errors.	Three or fewer misspellings and/or mechanical errors.	Four misspellings and/or grammatical errors.	More than 4 errors in spelling or grammar.
Oral Presentation	Interesting, well-rehearsed with smooth delivery that holds audience attention.	Relatively interesting, rehearsed with a fairly smooth delivery that usually holds audience attention.	Delivery not smooth, but able to hold audience attention most of the time.	Delivery not smooth and audience attention lost.

Learning Plan:

Content Learning Activities:

Day 1:

- Introduction of the incubator and a discussion of the eggs inside it.
- Present the picture vocabulary.
- Read pages from the book "A Chick Hatches" by Joanne Cole.
- Making their own journals using yellow, black and orange construction paper then cut out 5 egg shaped writing paper and staple it in between the chick covers.
- Students begin their first journal entry. NOTE: The entries will not be every day but will continue throughout the 21 days of the incubation period.

Day 2:

- The picture vocabulary of the parts of an egg will be presented to the students and left up on the white board for students to refer to.
- Each student will be given an egg and an magnifying glass to examine the out and Inside of the egg (parts of the egg).
- Students will be given the worksheet *Egg Parts* to complete.
- The students will write a description in the first person using the vocabulary of the parts of an egg to discuss their function.
- Each student will be recorded using the description they wrote.

Technology Learning Activities:

Day 3:

- Each student will be assigned to a computer. The teacher will use the IKIE and a wireless laptop to teach the students how to use the different keys to navigate through the Internet, retrieve images, transfer images to slideshow and discuss responsible usage of the Internet.
- The students will be given time to practice their skills using Microsoft Word to type information, copy and paste images, save their work etc...

Day 4:

- There will be a review and practice from the prior lesson.
- To engage and have the student begin thinking about other egg laying animals, the teacher will show two short films from the Internet using the Iki and wireless laptop:

<http://www.youtube.com/watch?v=LKvez9duEHQ>

<http://www.msichicago.org/online-science/videos/video-detail/activities/the-hatchery/>

- The students will be given three worksheets; *Egg Laying Animal Research* to begin researching on their animals.

Day 5:

- Each student will be given the rubric and as a whole will discuss what each area of the rubric means.
- The students will continue their research or begin creating their slideshow.
- The students print out their slideshow to practice on their own.

Day 6:

- The students will be paired up so they can practice presenting their slideshow. They will take turns listening to each other.
- The students will present their slideshow.

Rationale - Understanding by Design

As I think back on the assignment where we had to find our group's strengths and weakness using the Multiple Intelligence questionnaire, I think about why I designed my UbD the way I did. I not only want students to have fun learning about the development of a chick but also want them to retain the knowledge they have gained. I believe to do that we have to keep in mind the *Multiple Intelligences*, using *Bloom's Taxonomy* with higher level questions and using technological tools when planning our lessons.

Gardner stated in his interview in YouTube, that if teachers teach lessons that only touch one area of the intelligences, we are not reaching many of our students. He also stated, "that unless students learn to ask questions, to do things hands on, to essentially re-create things in their own mind and transform them as is needed, the ideas just disappear. The student may have a good grade on the exam, we may think that he or she is learning, but a year or two later there's nothing left (Interview, 1997)." According to Dr. Marjorie Hall Haley from George Mason University, the study showed that ELL students showed growth in written and oral proficiency in the target language. Furthermore, a survey indicated that students expressed positive feelings toward their teacher who used different ways of instructing (Haley, 2001).

So I incorporated activities that touched upon several intelligences to reach all students if not, most. My lesson also involves activities that require students to use multiple strategies based on Bloom's Taxonomy. As they answer questions in the higher level of and apply them during discussions with their classmates, the students begin to use higher vocabulary, think creatively and outside the box. We all work with students that have different academic needs, from gifted to ELL students. Whatever those needs may be,

some of a teacher's main concern is how to keep the students engaged while they are learning and furthering academic progress. This UbD Template has helped and taught me how to focus more on my students needs. Moreover, I believe I have grown as a teacher and now have a better understanding and new found respect for technology.

REFERENCES

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