It's More Than Just Science!

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Objectives:

1. Participants will analyze the Common Core Curriculum for Middle to High School Biology content.
2. Participants will apply Science Content to functional life skills (communication, math skills, vocational interests/inventories)
3. Participants will create a file of resources for science instructional supports within NC.

Crack Into the Middle School Common Core and Extended Content Standards

Crack Into the High School Common Core and Extended Content Standards

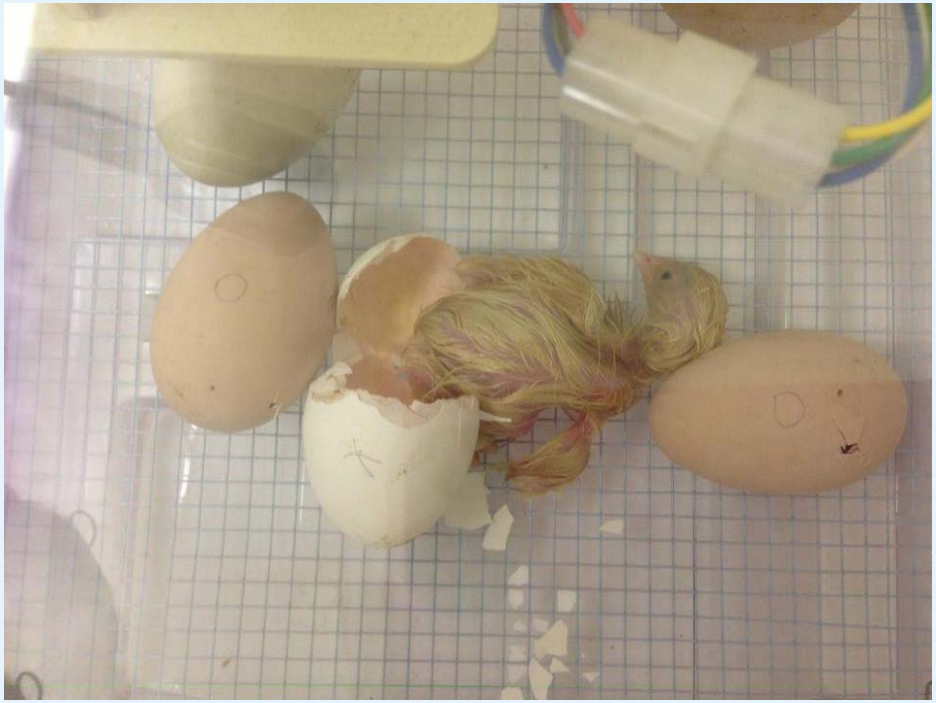
- ..\..\..\Documents\EC Conference AU Science\EC_Conf_CCS_9th_10th_Grade.doc..\..\..\Documents\EC Conference AU Science\EC_Conf_CCS_11th_12th_Grade.doc
- Activity: Using the handouts above (or NC Standards for Biology and OCS Biology), identify standards that apply to what you have learned about the Embryology Unit.

More than Science!

- Social Skills
- Communication Skills
- Behavior Skills
- Engagement in Learning Activities

Social Skills (video)

Communication Skills (video)



Behavior Skills(video)

Engagement in Learning Activities (video)

It’s Cracked Open!

- Review Content Covered
- Pass Out CD’s
- Question/Answers

Additional Resources:

- http://web.extension.illinois.edu/chick/print/
- http://www.nc4h.org/educators/
- https://www.dropbox.com/s/e0kdxag2j7eoync/Experimenting.doc

Key Ideas and Details

- CCSS.ELA-Literacy.RST.9-10.1 Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- CCSS.ELA-Literacy.RST.9-10.2 Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
- CCSS.ELA-Literacy.RST.9-10.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.

Craft and Structure

- CCSS.ELA-Literacy.RST.9-10.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9–10 texts and topics*.
- CCSS.ELA-Literacy.RST.9-10.5 Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., *force, friction, reaction force, energy*).
- CCSS.ELA-Literacy.RST.9-10.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- CCSS.ELA-Literacy.RST.9-10.8 Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.
- CCSS.ELA-Literacy.RST.9-10.9 Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RST.9-10.10 By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.

(Retrieved on October 28, 2013, from: http://www.corestandards.org/ELA-Literacy/RST/9-10)

Key Ideas and Details

- CCSS.ELA-Literacy.RST.11-12.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- CCSS.ELA-Literacy.RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- CCSS.ELA-Literacy.RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

Craft and Structure

- CCSS.ELA-Literacy.RST.11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11–12 texts and topics*.
- CCSS.ELA-Literacy.RST.11-12.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
- CCSS.ELA-Literacy.RST.11-12.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

Integration of Knowledge and Ideas

- CCSS.ELA-Literacy.RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- CCSS.ELA-Literacy.RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
- CCSS.ELA-Literacy.RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Range of Reading and Level of Text Complexity

- CCSS.ELA-Literacy.RST.11-12.10 By the end of grade 12, read and comprehend science/technical texts in the grades 11–CCR text complexity band independently and proficiently. (Retrieved on October 28, 2013 from: http://www.corestandards.org/ELA-Literacy/RST/11-12)

Extended Content Standards Lesson Plan Template

Teacher (s):	Jennings, Wooten, Clemmons, Mattes
Unit:	Egg-stra Science Fun!
Grade Level(s):	7th-8th
Date(s):	March (week long)
Lesson Title:	Eggs, Embryos, Chicks…How it all happens
Subject(s):	Science, ELA
Standards and Goals: *Explicitly state the specific Extended Content Standards and IEP goals that are linked to your lesson.*	**Go to the 'NC-ECCSS' tab to select Standards and Goa**
Essential Questions/Learning Targets:	What is happening inside my egg? How does the chick hatch? What is my responsibilities for caring for the baby chick?
"I can" Statements for Students: *These are your learning outcomes for students that will be explicitly stated to them and posted. This gives the students a clear understanding of what they are supposed to be learning.*	I can describe what happens inside an egg as the chick begins to hatch. I can ex what will happen when the chick hatches. I can care for the egg as it is in the incubator and for the chick after it hatches.
Materials:	Embryology Unit Kit from 4-H Cooperative Extension: Candling material (Overh Projector, cardboard box with hole cut in it-directions in teaching materials fro H), Incubator, Eggs, data collection sheets, schedule for turning, vocabulary, fli book.
Anchor/Hook: *How are you going to introduce the lesson to your students? To motivate them or get them "hooked"? To anchor the activity by activating their prior knowledge or building prerequisite concepts?*	Ask for ideas of what is in the egg? How do you know?(Write down ideas and responses.) Have you ever seen, heard, or felt what is in an egg? Let's find out inside and how we need to take care of what's inside.
Activity Description:	Mon: Conserving H2O, Tuesday Making Evaporation, Wed. Making Rain, Thurs Cleaning water, Friday Presenting PPT/Tarheel Reader Book
Activity Attachements Needed?: (YES/NO) *If attachements are required, please paste into the space provided in the 'Activity Attachment' tab.*	NO
Multiple Means of Representation: *How are you going to present the content of the lesson in multiple ways so all students have access to it? Examples: Use of a variety of pictures, Board Maker symbols, multiple types of books (audio, tactualized, squish), hands on materials, graphic organizers*	Tactile/visual/auditory representations of a chick through baby chick toy, candl activity, and video of chick being born. Flip book of vocabulary terms, hands on w/ eggs, incubator, schedule, and candling supplies.
Multiple Means of Engagement: *How are you going to provide multiple means for students to engage with the content so all students can learn? Examples: small group rotations with varying activities (list activities for each center), whole group shared reading, independent practice, computer aided instruction, writing center, etc….*	I do, we/two do, you do: Teacher demonstrates candling, care for eggs, videos/PowerPoints of vocabulary concepts, brooder box construction requirer teaching staff assists students in care of eggs, provides input for creating brooc box, assists with candling acctivity. Students create brooder box designs (cardb boxes, tape, markers, construction paper) or on the computer (software progra apps, etc.) students gradually care for eggs independently or actively engage th providing instructions to lab partner.
Multiple Means of Expression: *How will you provide assessment through multiple means for students to demonstrate they have mastered the objectives of the lesson? Examples: student written product, creation of Power Point book, reading aloud a decodable text to a classmate, identifying words in context or other authentic tasks.*	Students will provide an example through brooder box model, PPT/Tarheel Rea book presentation/ or video of Embryology Unit objectives, caring for egg, canc activity, hatching of eggs, etc.