DRAWING ON NATURE
Webinar for Educators
Developing students' skills in observation, illustration, data collection and nature journaling

Part 1
For Elementary Level Educators
Wednesday, February 9, 2022
4-5 PM Central Time
(5-6 PM ET; 3-4 PM MT; 2-3 PM PT)

Four-time Maine Duck Stamp artist and children's author/illustrator Rebekah Lowell will lead the instruction for Part 1.

Part 2
For Middle & High School Level Educators
Wednesday, February 16, 2022
4-5 PM Central Time
(5-6 PM ET; 3-4 PM MT; 2-3 PM PT)

Part 2 will be led by wildlife artist Rebekah Knight, who many know as a leading contender in the Federal Duck Stamp Contest as well as her role in "The Million Dollar Duck" documentary.

Register at
www.projectwild.org
What is a “Duck Stamp”?

Migratory Bird Hunting and Conservation Stamp

2021-2022 MIGRATORY BIRD HUNTING AND CONSERVATION STAMP
U.S. FISH & WILDLIFE SERVICE

CELEBRATING OUR WATERFOWL HUNTING HERITAGE
Duck calls, decoys, blinds, boats, and hunting dogs illustrate our waterfowl hunting heritage and may feature in our cherished memories of valuable time spent in the field.

Migratory Bird Program - Conserving America’s Birds
Junior Duck Stamp Program

Conservation Education Through the Arts

- Late 1980
- Conservation through the Arts
- Curriculum
- 50 states, D.C., U.S. territories
- 25,000 students enter art contest
- Jr Duck Stamp – collectible
- 300,000 families, educators, community members

Migratory Bird Program - Conserving America’s Birds
Project WILD Activities Connecting to Illustration & Art

**Project WILD: K-12 Curriculum & Activity Guide:**
- Nature in Art
- Learning to Look, Looking to See
- Wild Words
- Animal Poetry

**Flying WILD: An Educator’s Guide to Celebrating Birds:**
- Avian Art
- Birds on Display
- Count your Birds
Save $5.00 on Flying WILD

Search “Project WILD Online Store” or go to https://www.fishwildlife.org/products

Regularly $27.84. Now $22.84 until March 1, 2022.
Coming Soon:
Flying WILD Online Professional Development Course!

- Ideal for educators for 4th-8th grade learners
- Eight hours (or less) to complete
- Testing & Review- February through March, 2022
Call for Reviewers

Sign up at

https://forms.office.com/r/FzWQXZ9YVj
Get WILD training in your state!

www.projectwild.org
The previous slides were used for both Part One & Part Two of the webinar series. Continue with slides 16-26 below for Part One (elementary audiences) or skip ahead to slide #27 for Part Two (middle and high school audiences).

Also, within the Part Two set of slides, you will find some slides that indicate links to Next Generation Science Standards as well as National Art Standards for Visual Arts. While we did not have time to cover these during the webinar, the slides were left in for additional information for those of you reviewing this content.
Part 1

Elementary Grades

DRAWING ON NATURE:
SKETCHING & OBSERVATION SKILLS - PART I (ELEMENTARY EDUCATORS)

Nature Journaling Materials
- Pencils
- Eraser
- Drawing Paper
- Watercolor Paints
- Watercolor Paper
- Paintbrush
- Colored Pencils
- Pencil Sharpener
- Various Art Pencils (waterproof is a plus)
- Brush Markers

Natural Objects to Draw
- Pinecone (or other tree cone)
- Dried flowers or fern from outside
- Acorn (or other tree nut)

Other ideas for further nature journaling:
- Feathers, sourced ethically from a craft store
- Pressed flowers
- Found insects or insects

When possible, return found objects to nature.
We will further discuss feathers in the workshop.

*needed if you choose to follow along
Drawing on Nature

with Rebekah Lowell
We will be drawing...

- a pinecone with pencil
- dried yellow tansy with colored pencil
- an acorn with watercolor
Connecting to the Standards: Next Generation Science Standards (NGSS)

Students who demonstrate understanding can:
K-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

ETS1-2: Design and construct a solution to a problem. (K-2)

The performance expectation above was developed using the following elements from the NRC document A Framework for K-12 Science Education:

Science and Engineering Practices

Developing and Using Models
Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.
- Develop a simple model based on evidence to represent a proposed object or tool.

Disciplinary Core Ideas

ETS1.B: Developing Possible Solutions
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people.

Crosscutting Concepts

Structure and Function
- The shape and stability of structures of natural and designed objects are related to their function(s).

Connections to K-3-ETS1.B: Developing Possible Solutions to Problems include:
Kindergarten: K-ESS3.3, First Grade: 1-PS4-4, Second Grade: 2-LS2-2

Articulation of DCIs across grade-levels:
3-5.ESS1.A ; 3-5.ESS1.B; 3-5.ESS1.C

Common Core State Standards Connections:
ELA/Literacy —
SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (K-2-ETS1-2)

* The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea.

Thank you!

Rebekah Lowell

WWW.REBEKAHLLOWELL.COM
Part 2
Middle and High School
WHITETAIL DEER
BASIC STRUCTURE

© REBEKAH KNIGHT
AN ATLAS OF ANIMAL ANATOMY FOR ARTISTS

W. ELLENBERGER
H. DITTRICH  H. BAUM

Edited by Lewis S. Brown
288 illustrations
Bird Anatomy
for Artists

Natalia Balo
1-Point

2-Point

3-Point

4-Point
1. Establish
2. Adjust
3. Refine/Refine
4. Form/Focus
Movement gestures
AMERICAN BLACK DUCK
(Anas rubripes)

- Black border
- Dark brown body
- Pale head
- White underwing
- Dark eyeliner and cap
- Head shape similar to mallard
- Blue/purple feather
- Secondary feather
- Orange
- Brown tail
- Bill
- Yellow male
- Olive female
Curriculum
Resources
Field Trips/Events/Activities
“Discovery” Trunks
Contest
Diversifying Art
## Connecting to the Standards: Next Generation Science Standards (NGSS)

Students who demonstrate understanding can:

**MS-LS4-4.** Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals’ probability of surviving and reproducing in a specific environment. [Clarification Statement: Emphasis is on using simple probability statements and proportional reasoning to construct explanations.]

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

### Science and Engineering Practices

**Constructing Explanations and Designing Solutions**

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progressions to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.
  - Construct an explanation that includes qualitative or quantitative relationships between variables that describe phenomena.

### Disciplinary Core Ideas

**LS4.B: Natural Selection**

- Natural selection leads to the predominance of certain traits in a population, and the suppression of others.

### Crosscutting Concepts

**Cause and Effect**

- Phenomena may have more than one cause, and some cause and effect relationships in systems can only be described using probability.

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**Connections to other DCl{s} in this grade-band:**


**Articulation of DCI{s} across grade-bands:**


**Common Core State Standards Connections:**

**ELA/Literacy –**

- **RST.6.8.1** Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions. (MS-LS4-4)
- **RST.6.8.9** Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic. (MS-LS4-4)
- **WHST.6.8.2** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. (MS-LS4-4)
- **WHST.6.8.9** Draw evidence from informational texts to support analysis, reflection, and research. (MS-LS4-4)
- **SL.8.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly. (MS-LS4-4)
- **SL.8.4** Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS4-4)

**Mathematics –**

- **6.RPA.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. (MS-LS4-4)
- **6.SP.B.5** Summarize numerical data sets in relation to their context. (MS-LS4-4)
- **7.RPA.2** Recognize and represent proportional relationships between quantities. (MS-LS4-4)
Connecting to the Standards: Next Generation Science Standards (NGSS)

Science and Engineering Practices

Developing and Using Models
Modeling in 9–12 builds on K–8 experiences and progresses to using, synthesizing, and developing models to predict and show relationships among variables between systems and their components in the natural and designed worlds.

- Develop and use a model based on evidence to illustrate the relationships between systems or between components of a system.
### 6th
VA:Re8.1.6a

Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, **characteristics of form** and structure, and use of **media** to identify ideas and mood conveyed.

<table>
<thead>
<tr>
<th>HS Proficient</th>
<th>HS Accomplished</th>
<th>HS Proficient</th>
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</thead>
<tbody>
<tr>
<td>VA:Re.7.1.1a</td>
<td>VA:Re.7.1.1la</td>
<td>VA:Re.7.2.1a</td>
</tr>
</tbody>
</table>

- **Hypothesize ways in which art influences perception and understanding of human experiences.**
- **Recognize and describe personal aesthetic and empathetic responses to the natural world and constructed environments.**
- **Analyze how one’s understanding of the world is affected by experiencing visual imagery.**
Connecting to the Standards: nationalartstandards.org  Visual Arts

**Synthesizing and relating knowledge.** Through art-making, people make meaning by investigating and developing awareness of perceptions, knowledge, and experiences.

How does making art attune people to their surroundings?

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<tr>
<th>Pre K</th>
<th>3rd</th>
<th>HS Accomplished</th>
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<tr>
<td>VA:Cn10.1.Pka</td>
<td>VA:Cn10.1.3a</td>
<td>VA:Cn10.1.IIa</td>
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</tbody>
</table>

- **Pre K VA:Cn10.1.Pka**: Explore the world using descriptive and expressive words and art-making.
- **3rd VA:Cn10.1.3a**: Develop a work of art based on observations of surroundings.
- **HS Accomplished VA:Cn10.1.IIa**: Utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art-making.
Thank you!

For more information . . .

- mLeFebre@fishwildlife.org for questions about Project WILD
- suzanne_fellows@fws.gov for questions about Federal Junior Duck Stamp
- Rebekah Knight: https://rebekahknight.com/