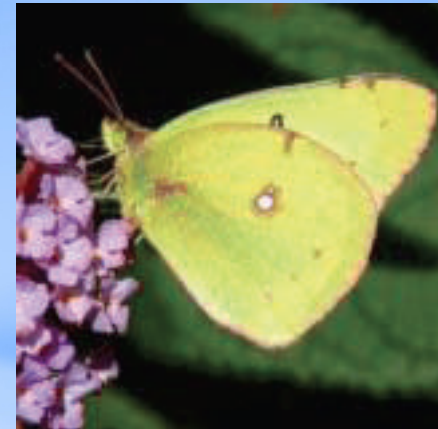# Enrichment

Eastern Tiger Swallowtail

Component 14 of the Competencies Collaboration

SEVA Council of Gifted Administrators

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Common (Clouded) Sulfur

What is the purpose of enrichment?

- The purpose of enrichment is to provide extended learning opportunities and challenges to students who have already mastered, or can quickly master, the basic curriculum. Enrichment gives the student more time to study concepts with greater depth, breadth, and complexity. Enrichment also provides opportunities for students to pursue learning in their own areas of interest and strengths.

- Enrichment keeps advanced students engaged and supports their accelerated academic needs.

- Enrichment provides the most appropriate answer to the fourth question in the rigor and relevance framework, "What do you do when the student already knows it?"

Talking Points –
What enrichment *is…*

- Flexible groups (may change daily or weekly)
- Choices for students
- Content connected
- Increased depth, breadth, or complexity
- Sometimes independent activities, sometimes direct instruction
- Cross-curricular
- *Different*, or differentiated, work – not just *more* work
- High-level thinking skills applied to content
- Planned and purposeful
- Responsive to students' needs and situations

Talking Points –
What enrichment *is not…*

- A label (this is an "enrichment student")
- Just for gifted students (some gifted students may need intervention in some areas just as some other students may need frequent enrichment)
- Worksheets that are more of the same (busywork)
- Random assignments, games, or puzzles not connected to the content areas or areas of student interest
- An end in itself (enrichment in <u>what</u>?)
- Extra homework
- Just different strategies for the same content
- A package that is the same for everyone
- Thinking skills taught in isolation
- Unstructured free time

The Big Questions

Enrichment needs to be purposeful, focused, and planned.
Before you start your students on an enrichment project or activity, ask yourself these questions:

- What results or student outcomes do you expect to see as a result of enrichment in this particular area, or for this particular student?

- What is the specific content that needs to be enriched? (You have to figure out <u>what</u> you want to teach before you can figure out <u>how</u> to teach it.)

- How do you decide who (or what) gets to be enriched?

- What choices will the students have?

Foundations of Enrichment and Differentiation

- ❑ Use the appropriate assessment data to identify student skill levels.
- ❑ Select texts and materials that provide the appropriate level of challenge (skill, maturity, interest).
- ❑ Differentiate small group instruction to offer extension experiences.
- ❑ Adjust pacing to allow for essential skill acceleration.
- ❑ Design units to offer cross-curricular applications.
- ❑ Incorporate problem-solving and inquiry-based activities.
- ❑ Facilitate student-led questioning and discussions.
- ❑ Incorporate real-world problem-solving activities.
- ❑ Meet diverse learning preferences by allowing students to make choices for how to demonstrate their skill mastery.
- ❑ Foster critical thinking by weaving media, reading, writing, speaking and listening skills into multifaceted lessons.
- ❑ Stimulate creativity by incorporating graphic, visual, auditory, media, and print resources and experiences.

Tiffany Hardy

Planning Enrichment Strategies

- Think: If you had more time in your regular class, what else would you like to do with the students? What else would you like them to explore or learn about?

- Ask: In what topics or ideas have your students expressed an interest? What would they like to learn more about, or have the opportunity to create?

- Analyze: Which students have already demonstrated mastery in a concept or topic? Which students need enrichment opportunities?

- Discuss: How can the students be more responsible for their own independent learning? What assistance will they need?

- Plan: How will their enrichment projects be evaluated? What do you want them to learn from these projects?

- Strategize: What issues might arise? What concerns might there be? What do you need to do ahead of time to make this successful?

- Reflect: What was successful this time? Why? What might you do differently next time?

Some General Enrichment Choices

1. Independent study contract – a student chooses a topic of interest, and works out the parameters for the process and product with the teacher. (see also slide 21)

2. Mentorship – a specialist may help a student with very advanced knowledge in a subject area. A mentor could be another teacher in a higher grade, a community member, or a college student or instructor. Mentorships may be done online. The material to be learned should be clearly specified.

3. Learning logs – a student who has extensive learning experiences outside of the classroom (such as in environmental education or writing for publication) may document that learning through a learning log, connecting it to classroom curriculum outcomes. This may be used as evidence to support moving to the next level or providing additional enrichment.

Cape Breton-Victoria School Board

More General Enrichment Choices

4. Interest centers – students or teachers can create special interest centers that are embedded in or tangential to the curriculum. These interest centers may be shared with other students or classes. Think expansively– students could use their research and artistic skills to create exhibits for a "Chesapeake Bay Museum" or a Space Station somewhere in the school.

5. Tiered assignments – students who master content easily can be given more challenging assignments (different texts, more complex vocabulary, more complex math problems) while students needing more support may have more basic practice and assignments.

6. Specialized grading rubrics – differentiated assignments may need differentiated grading scales, with specific rubrics for advanced students. Be sure to let students know ahead of time how they will be graded.

Still More General Enrichment Choices

7. Extension activities – look in textbooks and teachers' guides for follow-up or extension activities to support specific units or topics. Check the online HCS curriculum, too, for extension lessons and activities. Open-ended, real-world problem solving activities are a great way to extend student learning.

8. Enrichment clusters or small groups – for students with similar interests and abilities, long-term cluster groups may be utilized, with topics developed into long-term explorations. These should also be open-ended with real-world applications whenever possible.

Cape Breton-Victoria School Board

Common Blue (Summer Azure)

Some Basic Steps for Successful Enrichment

- Explain assessment criteria to students before starting a project.

- Create learning centers or task cards or folders of ideas that the students can choose. Have a checklist for students to document what they have completed.

- Appoint teams or small discussion groups (with a scribe) to work on problem solving activities or extension activities.

- Use learning logs, learning contracts, or "negotiated learning" for individual projects, with check-in points to make sure students stay focused.

- Work with another teacher to create cross-disciplinary projects.

- Plan for a variety of products and projects to meet the needs of students with different strengths and interests. Students should have opportunities for making choices.

- Provide opportunities for the students to share their work with an audience.

Enrichment in the Content Areas: Math Examples

HCS Mathematics enrichment resources provide opportunities for students in grades K-12 to discover how math relates to life and other subjects. These activities are meant to challenge students to apply mathematical concepts to everyday problems.

- **Good Questions: Differentiation Mathematics Instruction -**
  - Open-ended problem solving tasks that allow for multiple perspectives on representing mathematical thinking.
- **enVision Math Enrichment Components -**
  - Meeting Individual Needs Activities– Advanced level activities that address higher level student thinking and mathematical readiness within each math topic in the series.
  - Math Projects – interdisciplinary projects that provide students with opportunities to discover how math relates to other subjects.
- Other math examples: puzzles, brain teasers, partner games, tangrams, Sudoku, virtual manipulatives, research projects, creating graphs to analyze real world data

Enrichment in the Content Areas:
Language Arts
Elementary Example

LEARNING INTENTION: Identify important details in a nonfiction article in order to define the central topic, summarize the article, and analyze the significance of the issue.

To extend and enrich the traditional instructional sequence:

- Create a visual that captures the main idea or problem, important details, significance of the issue and poses potential solutions
- Write a fictional story that reflects the issue from the nonfiction article as the conflict in the story
- Create a media message that captures the main idea or problem, important details, significance of the issue and poses potential solutions
- Compare/contrast current article to a previously read article in order to make text-to-text connections

Enrichment in the Content Areas:
Language Arts
Secondary Example
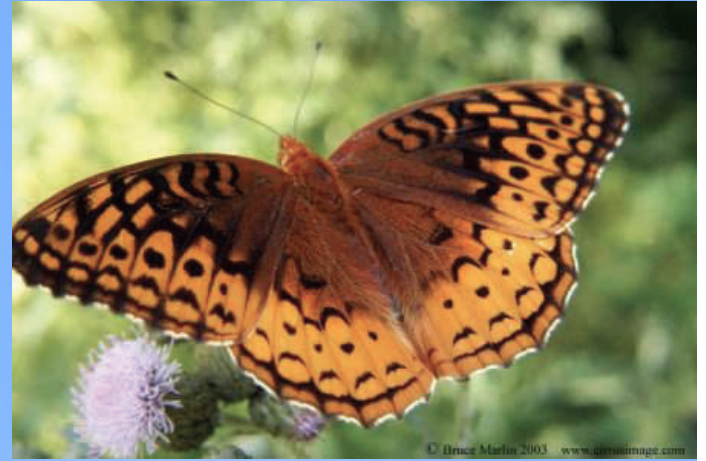
Great Spangled Fritillary

LEARNING INTENTION: Analyze the impact of persuasive techniques in a formal argument.

To extend and enrich the traditional instructional sequence:

- Use the writing process and apply persuasive strategies by composing a formal argument using persuasive techniques
- Present and critique peer arguments for impact of persuasive techniques in the formal argument and presentation style
- Compare/contrast formal arguments for message, techniques, effect
- Create two contrasting media messages that use persuasive techniques to capture opposing sides of an argument

Enrichment in the Content Areas:
Science Examples

- For secondary projects and assignment differentiation, give students choices that include more creative assignments and presentations that include more technology.

- Have students conduct research on real world issues in science, and then have a debate. Include discussions on real world cost vs. benefit scenarios.

- Have students design and conduct their own experiments, after getting them approved by the teacher.

- Have the students start a collection (tree leaves, rocks, shells, seed pods, pictures of insects, birds, or spiders around the school) and teach them how to use a field guide or online resources to identify their finds. Have them create an identification guide that other students can use.

Enrichment in the Content Areas:
Social Studies
Elementary Examples

Ideas to get students started:

- Grade K: Create 3-D board games focused on map skills; present it to the class for others to play.

- Grade 1: Write and direct a play about the lives of historical figures and act it out.

- Grade 2: Create commercial spots highlighting each of the qualities of good citizenship and research persons in the community that embody these characteristics.

- Grade 3: Create a web quest highlighting ancient civilizations and their contributions to modern day society.

- Grades 4 & 5: Create a virtual field trip highlighting the geography, products and industries of Virginia's five regions.

Enrichment in the Content Areas:
Social Studies
Middle Grades Examples

Ideas for more advanced students:

■ **Grades 6-7:** Create an online virtual museum documenting eras of exploration, Colonial America, Revolutionary War, Civil War, Spanish American War, World Wars I & II, Cold War, etc.

■ **Grade 8:** Research a community problem and identify its root causes. Create proposed public policy that addresses these issues and present it to city officials.

American Copper

Multi-Disciplinary Enrichment

Give students choices!

- Have students write poetry or a play explaining or describing concepts in any content area. Videotape the play or publish the poems.

- Do artwork that corresponds to any content area topic – consider costume design, advertising poster, map, or a book cover; or write a song to explain a concept.

- Write/publish a newspaper with an advice column, math puzzle, political cartoon, science discovery, book reviews, etc. Appoint a student proofreader. (Or make it a newspaper from the 1860s.)

- Write a children's book on any math or science topic. (Learn some bookbinding techniques to make it special, or publish it online.)

- Design a theme park with rides to teach about concepts in any content area.

- Create a video news broadcast of an important event or discovery.

Multi-Disciplinary Enrichment, cont.

- Write a "what if" story to explain what might have happened if a discovery had not been made.
- Start a math sketchbook. Use math concepts to create drawings, or explore the math in art or science.
- Create a "did you know" blog for math and/or science.
- Make a digital photo journal on an interesting topic.
- Choreograph a dance to interpret a science or math concept.
- Design a board game to support two areas of interest, and write clear rules for playing the game.
- Invent a machine or device to solve a problem in any content area.
- Create a timeline that includes the relationships between discoveries or progress in science, math, art, and politics.
- Write a journal or postcards from an explorer's or scientist's point of view (accurate historically, or in the future…).

Many more examples of interdisciplinary enrichment projects are available on the HCS gifted website, under the "for teachers" tab.

Independent Studies

Independent studies provide an excellent way for students to pursue specific interests. Planning is essential. An independent study contract should include:

- Time frames (due date, "checkpoints", daily time allotted)
- Resources needed (library or computer time, others involved, materials for the finished product)
- Purpose of the project (what the student intends to do, how it will be shared)
- Product details (how the student will demonstrate what he/she has learned, how the product will be graded)
- Reflection (Were the learning goals accomplished? What could have been done differently to make the project more successful?)

An example of an independent study contract is available on the HCS gifted website, under the "for teachers" tab.

Helpful Hint for Motivation

To motivate students and to help them understand that enrichment is not just "extra work," it helps to publish their content-based projects and products in the real world. Some examples of ways that students can share what they have learned:

- Make a web site or post on the school site
- Create a billboard with a message
- Create a computer game or program
- Publish a book
- Make a quilt for display (A math quilt? A poetry quilt?)
- Make a display for a local museum or historical society
- Do a conference presentation (Let the students present!)
- Make huge beautiful posters for display (ask your graphics department about the possibilities)
- Create a virtual field trip or museum or simulation

Academic Competitions and Clubs

- Academic competitions can be suitable for extending student learning, and can help students understand how their skills compare to students in other divisions. Some examples include Battle of the Books, Math Counts, Envirothon, Great Computer Challenge, science fairs, etc.
- Creativity/Problem Solving competitions can also help students extend their critical thinking and problem solving skills. Examples include:
    - Odyssey of the Mind
    - Future Problem Solvers
    - Destination Imagination
- Specialized clubs (drama, chess, Mandarin Chinese,…) provide another opportunity for students to extend their learning in areas of interest.

Revealing Undiscovered Talents

- As a way of finding hidden talents, consider having an "enrichment fair" that exposes students to new hobbies and interests. Community and staff members can offer workshops for which the students can sign up. New talents and interests can then be supported through further enrichment, independent study, or in connections made to other content areas.

- Origami and cat's cradle-type string games are great for developing fine-motor skills, and are especially good for visual-spatial learners. Scrabble, Boggle, and secret codes promote spelling and vocabulary. NIM games support mathematical reasoning. Fashion or music in colonial times can be fascinating (what kinds of pajamas did children wear in the 1700's?) and encourage interest in history. The possibilities are endless, and can be powerful motivators for reluctant or bored learners.

Enrichment Through Creativity

One easy way to extend and enrich the curriculum is to use the "SCAMPER" strategy. Have the students brainstorm ideas to solve a problem or create an invention/product, then apply any of the "SCAMPER" techniques to encourage elaboration and alternate ideas:

- Substitute
- Combine
- Adapt
- Magnify
- Put to other uses
- Eliminate
- Reverse or Rearrange

Mourning Cloak

Some of those "gifted strategies" that can also be used for enrichment

- Add depth, breadth, and complexity to lessons and assignments
- Give students choices and options for products
- Use problem-based learning with real-world connections
- Try product-based learning with a real-world audience
- Explore role-playing or simulation activities in different content areas
- Focus on creative, open-ended assignments and activities where there is not "one right answer"
- Use Socratic Seminars with special books
- Use Bloom's higher level questions (Why? What do you think? Create…)
- Add analytic activities and evaluative activities to support critical thinking skills

Concluding Thoughts

- Enrichment is not additional work; it is part of the program.
- Enrichment is neither the prescribed curriculum nor completely different from the curriculum; it is related to concepts and themes within the curriculum.
- Enrichment is not reproductive thinking; it is productive thinking.
- Enrichment is not packets of materials; it is presenting information in different ways and on different levels to different groups of students.
- Enrichment is not just a series of projects; it is a variety of products.
- Enrichment is not just a variety of activities; it is planned and purposeful engagement in learning.
- Enrichment asks open-ended questions leading to creative and divergent thinking.
- As a teacher, what enrichment opportunities would YOU like to have?

Cathy Telfer

Resources

- Books of ideas that can be used to provide enrichment in all content areas:
    - *Primary Enrichment Thinking* (PETS)
    - *I Believe in Unicorns*
    - *Anti-coloring Books*
    - *Primarily Poetry*
- Library of Congress – images of just about everything
- Technology specialists (Apps! Apropos programs! Great sites for students!)
- Prufrock Press – publishers of wonderful books for teachers on lots of enrichment and differentiation topics
- Odyssey of the Mind practice books – almost-free ideas for hands-on creativity and problem-solving, all ages
- Enrichment units from the College of William and Mary (published by Kendall/Hunt) – all grade levels; all content areas; longer-term hands-on projects

More Resources

- Academic competitions – Envirothon, Battle of the Books, Math Counts, Great Computer Challenge, etc. - something for everyone (just google "academic competitions" and see what you can find)

- Project PROMISE – hands-on science activities (free on the VDOE gifted instruction website), grades K-3; supports vocabulary development and problem solving as well as science; great for visual spatial learners

- NASA Teachers' Lab at the Air and Space Center – free materials for all grade levels, mostly science and math, but good inspiration for writers, too

- Mindware – a company with toys, puzzles, and activities that encourage creativity and problem-solving

- Extension activities in textbooks and teachers' guides

Still More Resources

Look for partners who can supply materials, funding for special projects, or expertise:

- Virginia Institute of Marine Science
- Hampton University
- Professional organizations (grants through VAG or VSTE)
- Chesapeake Bay Foundation
- Cooperative Extension Service; 4-H
- VA Soil and Water Conservation Districts
- Virginia Dept. of Environmental Quality
- Hampton Education Foundation
- Division of Geology and Mineral Resources
- Virginia Commission for the Arts
- Jefferson Lab
- Virginia Master Naturalists
- Parents!
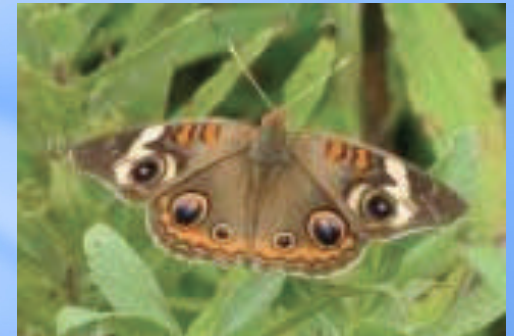
Common Buckeye

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Monarch

How many of these Virginia butterflies can you identify?