Overview of K-5 Science and Social Studies Ideas for the Intervention/Enrichment Block

In response to a request from Lesli Taschwer, MMSD School Support Team Coordinator, to develop a list of learning opportunities that may be incorporated into the Intervention/Enrichment Block, the following Science and Social Studies documents were created. These are intended to serve as a starting point for teachers to consider as they reflect upon the needs and interests of their students, and the available materials within their schools. In conjunction with these suggestions, individual teachers will undoubtedly have many other ideas and activities for this Intervention/Enrichment Block.

These learning opportunities are intended to be extensions of the core instruction that is available to all students. Adequate core instructional time to meet the Science and Social Studies standards, using the MMSD and DPI guidelines for class minutes of instruction, must be in place to ensure equity for all students.

We welcome your feedback and are available to support your efforts around planning for students during Science and Social Studies core instruction, as well as during the Intervention/Enrichment Block.

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The Full Option Science System (FOSS) curriculum is used for the core instruction in MMSD K-8 Science. The philosophy of the program is that the best way for students to appreciate the scientific enterprise, learn important scientific concepts, and develop the ability to think well is to actively construct ideas through their own inquiries, investigations, and analyses. FOSS was created to engage students in these processes as they explore the natural world.

The MMSD 4K-5 Sample Schedules set forth in June, 2012 provide specific guidelines for the amount of time to be dedicated to explicit daily core instruction in Social Studies/Science in grades K-2 (275 minutes per week) and in grades 3-5 (355 minutes per week) for all students. The minimum allocated instructional time for Science recommended by the Wisconsin Department of Public Instruction, per week for a six-hour school day, is included below:

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>K</th>
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<th>2</th>
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<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Minutes</td>
<td>10%</td>
<td>100</td>
<td>100</td>
<td>150</td>
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<td>175</td>
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**FOSS Science Enrichment**

The FOSS curriculum provides many activities and extensions beyond what is covered in the core classroom investigations. These enrichment opportunities could be used during an Intervention/Enrichment block. The activities are not meant to replace core curriculum, they are meant to enhance or enrich those learning opportunities that all students have received. They include interdisciplinary extensions and home/school connections and can be found in the teacher guides in the overview section in each module, specifically in the module matrix.

There is also a FOSS website (www.fossweb.com) which can be accessed on the Internet. Students can further their science investigations and exercise new skills and knowledge by using the interactive simulations designed for each FOSS module. Students can also bring FOSS into their homes and share experiences with their families through this tool.

There would be minimal material costs for schools to implement this option.

**Topic-Specific Inquiry Enrichment**

To extend the topic(s) already being studied during the core Science time, students can pursue authentic investigations. Students engage in degrees of guided inquiry in the core Science curriculum, but these projects would allow students to follow their own interests and give some insight into how well they have internalized the inquiry process. Students could conduct investigations using hands-on materials, or conduct additional research using printed materials to find new information to present to the class.

Students would:

- Consider and select investigations
- Complete investigation proposals
- Complete investigations
- Present investigation findings to the class

There would be minimal costs for schools to implement this option.
Science Mentor Texts Enrichment

Teachers often use children’s literature to guide and inspire student writers of narrative fiction and poetry. Now, they have turned their focus to nonfiction, identifying a wide range of mentor texts and showing how these models illustrate the key features of good writing. Science mentor texts have been identified for each of the topics covered in the FOSS curriculum studied at each grade level - kindergarten through grade 5. This list can be accessed by clicking on the following link.

https://readingweb.madison.k12.wi.us/node/144

Science Mentor Texts are listed by grade level and by FOSS modules. The list provides both nonfiction and fiction picture book titles. These Science mentor texts can be used to learn/reinforce Literacy strategies and skills as well as deepen Science content knowledge. The books can be read multiple times focusing on different skills/features each time. Typically, teachers read the books or sections of the books with their students in a large-group setting. Discussions and follow-up activities could focus on Science knowledge and practices and Literacy strategies and features.

Some informational text teaching points include:

- Decoding
- Comprehension
- Building Awareness of Informational Text Structures
- Language of Informational Texts
- Writing
- Content Information –
  - How does the book support the activities we have completed during Science?
  - Does the book provide additional facts, ideas for activities?
  - Does it answer some questions or wonderings that were raised during the Science content time of the day?
  - Does it provide evidence to support a claim?
  - Sometimes we cannot investigate everything, so we rely on great books to provide information about a topic, process, event, etc.

Schools would need to purchase the Science Mentor Texts to implement this option.

Engineering Is Elementary Enrichment

Engineering Is Elementary (EiE) is a curricular program that integrates Engineering with elementary Science topics. Connections with Literacy, Social Studies, and Mathematics can also be made. The curriculum project has two primary goals:

- Goal 1: Increase children’s Technological Literacy - including essential understandings and skills.
- Goal 2: Increase elementary educators’ abilities to teach Engineering and Technology to their students. This is especially important in implementing the new Next Generation Science Standards (NGSS) released in April 2013.
The EiE curriculum is not an independent curriculum. Rather, it is integrated with Science. The lessons assume that the students are studying or have already studied the Science concepts/topics (the FOSS curriculum) that are then utilized in the Engineering lessons. A particular EiE unit should be taught only in conjunction with, or soon after the Science topic is taught. The EiE curriculum does not explicitly teach Science topics, although Science content may be referred to or reviewed.

An EiE unit should be taught in the grade level when the corresponding Science concepts are addressed. The EiE units can be used in almost any grade. For each unit, the lesson plans are written either for basic or advanced students based on when the Science units are taught. In EiE units, grades 1-2 are generally considered basic and grades 3-5 are considered advanced. However, if the lesson plans are written for basic students, suggestions are included throughout the lesson plans for slight modifications that make the lesson more applicable for advanced students. If the lesson plans are written for advanced students, suggestions are provided for teaching the unit with basic students.

The curriculum binders are easily accessed by elementary teachers with accompanying professional development. The EiE curricular materials and lesson plans follow a similar format that consists of a preparatory lesson followed by four unit lessons.

Schools choosing this option would need to purchase the EiE curriculum and supporting materials. Professional development will be required for teachers.
The Social Studies Alive! Teacher Curriculum Institute (TCI) curriculum is used for the core instruction in MMSD K-9 Social Studies. This comprehensive, theory and research-based curriculum aligned to state and MMSD standards involves active instruction using a variety of teaching strategies to best reach diverse learning styles. The TCI materials provide great content, meaningful technology and interactive classroom experiences with structured reading and processing opportunities to promote the students’ higher-order thinking skills and the ability to synthesize and apply information in a variety of creative ways to demonstrate understanding.

The MMSD 4K-5 Sample Schedules set forth in June, 2012 provide specific guidelines for the amount of time to be dedicated to explicit daily core instruction in Social Studies/Science in grades K-2 (275 minutes per week) and in grades 3-5 (355 minutes per week) for all students. The minimum allocated instructional time for Social Studies recommended by the Wisconsin Department of Public Instruction, per week for a six-hour school day, is included below:

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<tr>
<td>10%</td>
<td>125</td>
<td>150</td>
<td>175</td>
<td>200</td>
<td>225</td>
<td>250</td>
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TCI Enrichment
The TCI curriculum provides many additional extensions beyond what is included in the core instruction. These activities could be used during the Intervention/Enrichment block and reflect learning activities that extend the content that is accessible to all students.

Accessible through TCI Online Teacher Subscription*/Teacher Kit www.teachtci.com
- Additional Reading Opportunities at the end of each chapter in the teacher Lesson Guide provide opportunities for students to enjoy related books (Under ‘Teacher Resources’ click ‘Enhancing Learning’ then ‘Additional Reading Opportunities’)
- An end-of-chapter Enrichment section in the teacher Lesson Guide provides a research/writing activity specifically designed to extend that chapter’s content (Under ‘Teacher Resources’ click ‘Differentiated Instruction’ then ‘Enrichment’)
- Extensions using website links (Under ‘Teacher Resources’ then ‘Enhancing Learning’)
- ‘Solutions for Effective Instruction’ at K-2 or 3-5 offers many graphic organizers, available both online and print. Use these organizers as students do additional reading or writing about core content. (Under ‘Teacher Resources’ then ‘Resources’ then ‘Solutions for Effective Instruction’)

Accessible through TCI Online Student Subscription* www.learntci.com
- Selected chapters include Enrichment Readings related to the specific chapter content

Accessible through TCI Teacher Genius http://teachergenius.teachtci.com/
- Enrichment Resources includes links to websites, searchable by grade level and topic
- Biography Bank for learning about notable people in history
- Videos, Web Tools, and Lesson Adaptations may provide specific ideas as well

*Please contact Ginny Hanson vhanson@madison.k12.wi.us or Jen Takahashi jbtakahashi@madison.k12.wi.us for TCI online teacher and student subscription information.
Topic-Specific Inquiry Enrichment
To extend the topics under study during the core Social Studies time, consider student inquiry around the following topics:

- TCI topics (see above)
- Provide primary and secondary sources related to the Social Studies content currently being studied, by searching BadgerLink [http://www.badgerlink.net/]
- Wisconsin Observance Days [http://eis.dpi.wi.gov/eis_observe]
  - DPI Social Studies Resource Pages for Observance Days [https://sites.google.com/a/dpi.wi.gov/wi-social-studies/resource-pages]
  - Wisconsin Educational Communications Board (EBC) Observance Days [http://www.ecb.org/surf/observance.htm]
- 150th Anniversary of the Emancipation Proclamation (2013)
- Gr. 4 Wisconsin Topics
  - Wisconsin Historical Society webpage [http://www.wisconsinhistory.org/teachers/]
- Check your school’s online ‘Library Portal’ for resources on the Inquiry Process (Under ‘Library Skills’)

Social Studies Mentor Text Enrichment
Social Studies Mentor Texts are listed by grade and by strand to correlate with topics studied at each grade level and can be accessed at the Social Studies website under ‘Literacy Connections’ [https://socialstudiesweb.madison.k12.wi.us/node/91] or the C&A Literacy site: [https://readingweb.madison.k12.wi.us/node/144]

The list provides both nonfiction texts and fiction picture books. As one considers the Common Core State Standards for both Literature and Informational Texts and Writing, many possible activities could be completed using a mentor text. The following are a few suggestions:

- Promote question asking as students are introduced to a new mentor text as a way to encourage their predictions and activate prior knowledge as would be done in the Mondo Shared Reading activities during literacy
- Compare and contrast the content, events, people in the mentor text with that of the TCI text
- Compare and contrast the content of a Mondo Shared Reading or Info Pair to a mentor text
- Study story structure of the text
- Explore author’s craft and use of language
- Use various graphic organizers to analyze or summarize the content of a mentor text
- Provide a variety of writing activities tied to the mentor text

Use of a specific mentor text may also lead to work around a particular author or illustrator who tends to specialize in Social Studies related topics. Students can explore other titles by that author/illustrator to determine the specific craft of how information is presented.

Geography Enrichment
Use of District reviewed and recommended Atlases from Herff Jones Nystrom at grades 2-4 (materials are also available for Kindergarten, gr. 1 and gr. 5) along with student activities at each grade level can provide numerous extensions beyond core standards expectations. Additionally, these atlases provide opportunities for specific work on informational text features unique to maps. This will require purchase by the school.

- Kindergarten: *The Nystrom Jumbo Atlas*
- Grade 1 *Block Buddy*
- Grade 2 *Nystronaut*
- Grade 3 *Map Champ Atlas*
- Grade 4 *Junior Geographer Atlas*
- Grade 5 *Our Country’s History*
Current Events Enrichment

- *Time for Kids* periodical, used to promote understanding of current events and practice with reading a newspaper format. A subscription to this specific periodical also allows for purchase of an inexpensive and very enriching accompanying publication called *Around the World*. This additional six-time per year publication features a specific look at a country using facts, information on a child’s day, mapping and a literature connection. Online resources are available to further extend the contents of the teacher’s guide. [http://www.timeforkids.com/](http://www.timeforkids.com/)


Online Enrichment

- Use of building-based online resources such as Culture Grams, Pebble-Go Social Studies to support inquiry and background knowledge
- Use of BadgerLink for online student research [http://www.badgerlink.net/](http://www.badgerlink.net/)
- See the Social Studies website for additional website recommendations [https://socialstudiesweb.madison.k12.wi.us/node/91](https://socialstudiesweb.madison.k12.wi.us/node/91)

Terrace Town Enrichment

Terrace Town provides a rich, ongoing, hands-on experience, incorporating both Social Studies and Science. Students image, design, and build a city with an eye to environmentally-friendly, green building. While participation in this project can be K-5, it is especially suited to Gr. 2 (Community) and Gr. 3 (City). The project occurs every other year, including the 2013-14 school year. A decision to participate must be made very early in the school year. Given the scope of the project, there will need to be dedicated time during both core instruction and the Intervention/Enrichment Block.

Contact Monona Terrace Tourism Coordinator Heather Sabin at hsabin@mononaterrace.com and check out the Terrace Town website [http://www.mononaterrace.com/educatorspage/terracetown/](http://www.mononaterrace.com/educatorspage/terracetown/)

Connections to Art, Music/Movement, Drama Enrichment

- Extend Social Studies content through Art. For example, when working on a concept in the strand of Economics such as consumers/producers, students create a visual advertisement to promote a business or product of their creation. Other art activities may include cartooning focused on main idea, collage to focus on an era or big picture concept, etc.
- Extend Social Studies content through Drama, Readers’ Theater, and puppets. Also consider having students write their own play or use role-play as a way to demonstrate understanding of core content.
- Extend Social Studies content through Music. Write a song/rap or perform a dance to demonstrate understanding of core content.