

## Science and Social Studies Update



PAST, PRESENT, AND FUTURE



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## Presenters



Science

Social Studies

### Tamara Smolek

MDE – Education Consultant  
Office of Standards and  
Assessment  
Phone: 517-241-2525

### Scott Koenig

MDE - Education Consultant  
Office of Standards and  
Assessment  
Phone: 517-373-1931

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## Test Development



- STEP 1:** Local Education Expert Item Writing Committees
- STEP 2:** Local Education Expert Bias/Content Review Committees
- STEP 3:** Field testing
- STEP 4:** Data Review Committees – BSC and CAC
- STEP 5:** Operational
- STEP 6:** Local Education Expert Standard Setting  
*(Only done with new tests)*



***Our assessment is developed by Michigan educators for Michigan classrooms.***

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 **Be Part of Our Team!**

Use the information to the right to become a writer, reviewer, or panelist in our test development process.

Application URL:  
<http://www.cvent.com/Surveys/Questions/IDConfirm.aspx?s=06002a4e-c578-417d-807f-542787fad180>  
 or  
[www.michigan.gov/baa](http://www.michigan.gov/baa) → Scroll to bottom of page → click *Assessment Committee Participation Application*

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**Science and Social Studies Pre-2015**



Science	Social Studies
<ul style="list-style-type: none"> <li>• MME</li> <li>• MEAP</li> <li>• Measured science standards - 2007 adoption</li> <li>• Test item type included multiple choice (MC) items</li> </ul>	<ul style="list-style-type: none"> <li>• MME</li> <li>• MEAP</li> <li>• Measured social studies standards - 2008 adoption</li> <li>• Test item type included multiple choice (MC) items</li> </ul>

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**Science and Social Studies 2014 - 2015**



Science	Social Studies
<ul style="list-style-type: none"> <li>• M-STEP</li> <li>• Measures student understanding of current (2007 adoption) science content standards</li> <li>• MC items only on assessment</li> <li>• Next Generation Science Standards (NGSS) update for content standards waiting for board review</li> </ul>	<ul style="list-style-type: none"> <li>• M-STEP</li> <li>• Measures student understanding of current (2008 adoption) social studies content standards</li> <li>• MC items only on assessment</li> <li>• College, Career, and Civic Life Framework (C3) update for content standards waiting for board review</li> </ul>

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### Science and Social Studies 2015 - 2016



#### Science

- Continue development for M-STEP
- Measures CURRENT science standards
- Major focus on writing technologically-enhanced (TE) items and added stimulus for MC items for online test

#### Social Studies

- Continue development for M-STEP
- Measures CURRENT social studies standards
- Major focus on writing technologically-enhanced (TE) items and added stimulus for MC items for online test

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### Engaging Online Assessment



- HOT TEXT
- HOT SPOT
- MATCH
- DRAG AND DROPS (TEXT AND GRAPHIC)
- CHOICE
- DROP DOWN
- ORDER

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#### Science Example

#### MC Sample Item

Sample Grade 4 Item P.EN.03.32 Distinguish the effect of fast or slow vibrations as pitch

Vibrations from a thick rubber band make a low-pitched sound. The vibrations from a thin rubber band make a high-pitched sound. This is *most likely* because the thin rubber band

- A moves faster.
- B moves slower.
- C is shorter.
- D is longer.

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**Science Example**

**MC Sample Item**

Sample Grade 7 Item      S.IP.07.12      Design and conduct scientific investigations

What is the main reason for clearly recording the procedures for an experiment?

- A so the experiment can be modified
- B so the experiment can be connected
- C so the experiment can be repeated
- D so the experiment can be summarized

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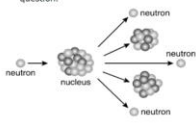
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**Science Example**

**MC Stimulus Sample Item**

Sample Grade 11 Item  
PA.12A      Describe peaceful technological applications of nuclear fission and radioactive decay

Use the diagram below to answer the question.



Which technology utilizes this process to obtain energy to generate electricity?

- A solar cell
- B combustion turbine
- C nuclear fission reactor
- D nuclear fusion generator

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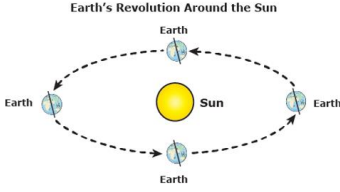
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**Science Example**

**MC Stimulus Sample Item**

**Earth's Revolution Around the Sun**



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**Social Studies Example**

### MC Stimulus Sample Item (Elementary)

**Stem**  
Use the map and your knowledge of social studies to answer the question.



Which region of Africa has the **largest** lakes?

**Options**

- A northern
- B western
- C eastern**
- D southern

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**Social Studies Example**

### MC Stimulus Sample Item (Middle School)

**Stem**  
Use the information in the box and your knowledge of social studies to answer the question.

... revolutions happen not upon every little mismanagement in public affairs ... But if a long train of abuses ... make the design visible to the people, and they cannot but feel what they are to suffer, and see without seeming they are going, it is not to be wondered at, that they should raise themselves, and [determine] to put the rule into such hands which may secure to them the ends for which government was at first erected ...

—John Locke, 1690

Source: John Locke, 1690, from "Two Treatises of Government"

Which United States government principle is referenced in this quotation?

**Options**

- A judicial review
- B social compact**
- C checks and balances
- D separation of powers

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**Social Studies Example**

### TE Sample Item (High School)

**Item Introductory text**  
The Constitution is the "law of the land" for the United States. The values of the Constitution are drawn from a number of historical documents, including the Mayflower Compact, the English Bill of Rights, and the Articles of Confederation.

**Instruction 1: Click:**

**Stem**  
Using your knowledge of social studies, select the one below that was drawn from these historical sources and placed into the Constitution.

**Can the options be shuffled by the test delivery system?**  
No

**Options**

- Option 1: Executive power is vested in the chief executive officer.**
- Option 2: Any powers not specifically enumerated are given to the federal government.
- Option 3: The power to coin silver rests with the Executive.
- Option 4: Congress, including both the government and represented by Congress, will.**
- Option 5: Judicial branch reserves the power to interpret legislation.
- Option 6: Checks and balances exist in government.**

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**Social Studies Example**

**TE Sample Item (High School)**

**Item Introductory text**  
The Columbian Exchange was the interconnection of the old world plants to the 1492 and 1600 world.

**Interaction 1: Graphic Drag and Drop - Without Unit Values**

**Stem**  
Based on the graphic above, organize the consequences into the areas where they occur. Some answers may be used more than once.

**Drop Zone(s)**

The Americas	Afro Eurasia
Introduction of new world crops, such as potatoes, leading to an increase in population. Atlantic slave trade supports economic growth. Economic advancement as a result of increased revenue sources.	Atlantic slave trade supports economic growth. Economic advancement as a result of increased revenue sources. The Great Dying as a result of increased disease transmission. Introduction of large domesticated animals to the ecosystem.

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**M-STEP Online**

**80% of Schools – Online**

**83% of Student Population Tested Online**

**3.8 million Test Sessions**

**190,731 Sessions in a Single Day**

**97% Participation Rate Overall**

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**Science and Social Studies Resources**

M-STEP sample items - [www.michigan.gov/baa](http://www.michigan.gov/baa)

**2015 DAS FALL Conferences for Assessment and Accountability**

- \* August 26, 2015 – Lansing Community College, Lansing, MI
- \* August 28, 2015 – Grand Haven Resort, Thompsonville, MI
- \* August 29, 2015 – Northern Michigan University, Marquette, MI
- \* September 1, 2015 – High School/Post-Secondary, MI

[Click here to register today!](#)

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## Social Studies and Science Resources



[http://www.mi.gov/mde/0,4615,7-140-22709\\_70117-280911--00.html](http://www.mi.gov/mde/0,4615,7-140-22709_70117-280911--00.html)

Spotlight Newsletter



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## Social Studies and Science Resources



Michigan Academic Standards -  
[www.Michigan.gov/academicstandards](http://www.Michigan.gov/academicstandards)

- Science**
- [Michigan Science Standards](#)
  - [Quality Review Analysis of the Next Generation Science Standards and Michigan Science Standards Update II - 2015](#)
  - [High School Science Computer Elements](#)
  - [21st Century Science Resources](#)
  - [K-12 Science Standards](#)
  - [Science Curriculum Framework](#)
  - [Proposed K-12 Michigan Science Standards \(2014\)](#)
  - [Science Curriculum Framework](#)
  - [New Science Curriculum \(2012\) Frameworks on Proposed Michigan Science Standards - Frameworks for Science Education](#)
  - [New Science Curriculum \(2012\) Frameworks on Proposed Michigan Science Standards - Frameworks for Science Education](#)
  - [New Science Curriculum \(2012\) Frameworks on Proposed Michigan Science Standards - Frameworks for Teaching and Learning Science](#)
  - [New Science Curriculum \(2012\) Frameworks on Proposed Michigan Science Standards - Michigan Science Standards](#)
  - [New Science Curriculum \(2012\) Frameworks on Proposed Michigan Science Standards - Science Frameworks: Content and Instructional Learning for Science Education](#)
- Social Studies**
- [Michigan Standards for Social Studies K-12 and 11-12](#)
  - [High School Social Studies Standards](#)
  - [Social Studies Curriculum Framework](#)
  - [Social Studies Resources](#)

Michigan Department of Education

Welcome to the Core & College-Ready Michigan Page

Core & College-Ready

Core & College-Ready students possess the skills necessary to earn a 4.0 average and to participate in postsecondary opportunities without remediation.

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## Science Specific Resources



<http://michigan.gov/science>

Michigan Department of Education

Proposed Michigan K-12 Science Standards

On 2011, Michigan has set a goal to be a 21st century state by leading the way in science, technology, engineering and mathematics (STEM) education. Education from the National Research Council states that one challenge is science and mathematics curriculum has been important in the development and success of our country. An excellent curriculum framework should be developed to support the goal of providing a quality education for all students and to meet the needs of our state.

The Michigan Department of Education (MDE) is currently engaged in the process of developing a science and mathematics curriculum framework for Michigan. The framework will be developed in collaboration with stakeholders from across the state, including education leaders and state representatives from across Michigan who represent the science and mathematics education community. The framework will be developed in collaboration with stakeholders from across the state, including education leaders and state representatives from across Michigan who represent the science and mathematics education community. The framework will be developed in collaboration with stakeholders from across the state, including education leaders and state representatives from across Michigan who represent the science and mathematics education community.

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### Science Specific Resources



[http://www.michigan.gov/documents/mde/Final\\_NGSS-MI-Content\\_Comparison\\_Study\\_473973\\_7.pdf?20150806105329](http://www.michigan.gov/documents/mde/Final_NGSS-MI-Content_Comparison_Study_473973_7.pdf?20150806105329)



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### Science Specific Resources



[http://www.michigan.gov/documents/mde/Michigan\\_Science\\_Standards\\_Presentation\\_488330\\_7.pdf?20150806105329](http://www.michigan.gov/documents/mde/Michigan_Science_Standards_Presentation_488330_7.pdf?20150806105329)



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### Science Specific Resources



[http://www.michigan.gov/documents/mde/Teacher\\_Preparation\\_and\\_PL\\_for\\_Science\\_SBE\\_Oct2014\\_488329\\_7.pdf?20150806105329](http://www.michigan.gov/documents/mde/Teacher_Preparation_and_PL_for_Science_SBE_Oct2014_488329_7.pdf?20150806105329)



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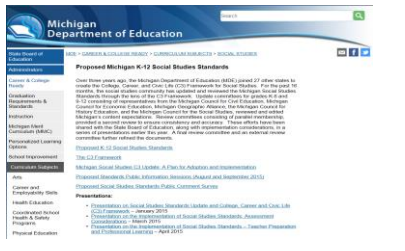
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## Social Studies Specific Resources



<http://mi.gov/socialstudies>



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## Social Studies Specific Resources



PASST Project -

<http://passtmoodle.wmisd.org/>



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## Social Studies Specific Resources



MI Open Book Project -

<http://textbooks.wmisd.org/index.html>



<https://www.youtube.com/watch?v=Em0BouJrWw>

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### Social Studies Specific Resources



#### National Assessment of Educational Progress (NAEP)

<https://nces.ed.gov/nationsreportcard/about/booklets.aspx>

**National Assessment of Educational Progress (NAEP)**

**Sample Question Booklet**

**4th Grade**

**2010**

NAEP Questions booklet is a great information source about NAEP assessment. The questions booklet is a sample of the actual NAEP questions that are used in the assessment. It includes the questions that are used in the assessment and the answer key. It also includes information about the assessment process and the scoring process. The booklet is available in English and Spanish.

[View Questions](#)

4th Grade

- Reading
- Mathematics
- Writing
- Science
- History
- Art
- Music
- Foreign Language
- Physical Education
- Health
- Technology

2010

[NAEP questions booklet](#)

[NAEP questions booklet](#)

[NAEP questions booklet](#)

[Sample Questions Booklets](#)

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#### Questions

Please ask any burning questions and we will do our best to accommodate your inquiry.

#### Questions?

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#### Contact Us:

**Tamara Smolek**  
Email: [SmolekT@michigan.gov](mailto:SmolekT@michigan.gov)

**Scott Koenig**  
Email: [KoenigS@michigan.gov](mailto:KoenigS@michigan.gov)

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Thank you!



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