Science Standards

Scavenger Hunt

*The **Bozeman Science website** (http://www.bozemanscience.com) features a variety of science coursework and science resources. The **Next Generation Science Standards (NGSS)** link on the website leads to informational videos on all of the different components of NGSS (Disciplinary Core Ideas, Cross Cutting Concepts, and the Science and Engineering Practices). The questions below are addressed in the NGSS overview video (http://www.bozemanscience.com/next-generation-science-standards-introduction).*

What are the 3 areas that the K-12 Science Framework is based on?

1.

2.

3.

The Scientific and Engineering Practices include both _____ and _____. How many Practices are there? _____

How many Crosscutting Concepts are there?

What are their purpose/what do they do?

DCI stands for _____ _____ _____.

What are the 4 domains for the DCIs?

1.

2.

3.

4.

What questions do you still have about the Next Generation Science Standards?

*The **Michigan Department of Education (MDE) science page** (http://www.michigan.gov/mde/0,4615,7-140-28753_64839_65510-339833--,00.html) includes links to the Michigan Science Standards (MSS) and supporting documents as well as including links to a variety of resources that support science education in Michigan.*

When were the Michigan Science Standards adopted?

The New Michigan Science Standards "are really a set of student _____ _____", which incorporate what 3 main elements?

1.

2.

3.

Find and view the "New Michigan K-12 Science Standards"

Read the "Coding Hierarchy" on page 6 – is the coding the same for NGSS and MSS?

Read about the Michigan Specific Contexts on page 7. Jot any notes or questions here.

How many topics (in bold) are there for your grade level?

How many Performance Expectations (PEs) total are there for your grade level (including Engineering Design PEs)?

Use the footnote key ( ). Are there any Michigan-specific performance expectations for your grade?

Note – these expectations will only appear in documents from MDE, not from NGSS.

Find and go to the "Framework for K-12 Science Education"

Click on the "Report" link. This allows you to download or print the 400-page document referenced in the video on Page 1.

Click on "Report Brief." What are you able to download or print?

Optional: Watch the "Science Unscrambled" video. Name one thing you learned.

Go to the "Frequently Asked Questions on Proposed Michigan K-12 Science Standards" (Version 4, Nov. 2015)

Read questions/answers for #13 - #15? What do you think?

Read and react to #31.

Scroll through the FAQ. Note any question numbers that answer questions you have.

In the Draft Guidance Document for Educators

What color are the Clarification Statements in the section containing Performance Expectations?

These statements come from the original NGSS documents and provide additional insight into classroom instruction.

Continue to explore the MDE science page (*http://www.michigan.gov/mde/0,4615,7-140-28753_64839_65510-339833--,00.html)*

Jot notes or questions here. Remember to look for answers to the questions you wrote on Page 1.

The Next Generation Science Standards (NGSS) website (http://www.nextgenscience.org) includes an increasingly growing amount of information and resources for schools and teachers to become familiar with, implement, and support use of the NGSS.

Look at the NGSS icon to find the three dimensions to learning science (3D learning). Compare these to the three areas the K-12 Framework is based on (see your notes on Page 1). What do you notice?

In the **Search the Standards** section, find and view the NGSS by Topic Arrangement and then by DCI Arrangement. What is the difference/Which view do you prefer?

What are evidence statements? (look toward the bottom of the main NGSS page alongside the Implement section) Bookmark or print off Evidence Statement(s) for your grade level(s).

Look on the NGSS page – where can you go to subscribe to the NGSS newsletter?

Optional: Use your e-mail address to subscribe now.

Explore the NGSS website and find one thing you think other teachers would value.

*Visit the **Bozeman Science website** (http://www.bozemanscience.com) and choose the **Next Generation Science Standards** link to answer the following questions and look for useful NGSS resources.*

Under "Resources," find and view the **NGSS Matrix**. Choose one of the DCIs from your grade level and write down the code.

Now return to the previous page and scroll down to find the code you selected above. Watch the first couple minutes of the video –what do you think?

Jot the codes for any DCIs for which you would like to come back later and watch the full video.

*The **National Science Teachers Association (NSTA)** (https://www.nsta.org) is a professional organization for science teachers. The NSTA website includes a huge variety of resources for teachers including webinars, lessons, e-communications, professional learning, opportunities, freebies, and much more.*

Click on "Science Standards" at top of NSTA homepage and then find "About NGSS." Find and read "Less Memorizing, More Making Sense." What are your thoughts?

Under “The Standards” link what do you think about the format (table) the standards are displayed in? (check out the arrangement in both Topic and DCI view)

Go to the Quicklinks (right side of page on “The Standards” link). Click on and read “How to Read the Standards.” Jot any notes or questions here.

Under the “Curriculum Support” link find and read “Using Science to Support Literacy in English Language Arts.” Jot any notes or questions here.

As you explore the NGSS section of the NSTA website (*https://www.nsta.org → Science Standards)*, look for the following:

- ☐ Find a lesson for your grade level in the “Classroom Resources” section
- ☐ Find the NGSS free App (download if you wish)
- ☐ Find the Web Seminar section (Professional Learning)
- ☐ Find the Journal Article section (Professional Learning)

Go to “Books, Journals, and Resources” from the NSTA home page (*https://www.nsta.org)*:

- ☐ Look at the many e-Newsletters available (sign up for one, if you wish)
- ☐ Check out “Freebies for Teachers”

Bookmark anything you would like to revisit. Note items of interest here.

*The **Michigan Science Teachers Association (MSTA**) (http://www.msta-mich.org) is a professional organization for Michigan Science Teachers. The website includes specific information on science and support, resources, and opportunities for science teachers in Michigan, including an archive of MSTA newsletters, FREE to all teachers.*

When is this year’s Michigan Science Teachers Association conference?

Under the “Support” link choose “Resources” and find one of interest to you.

Find the archives of the MSTA Newsletters. Choose Winter 2016 and read the letter from Stephen Best titled “Michigan Science Standards – Next Steps.” What are the 3 things educators are encouraged to do in the article?

1.

2.

3.