Who we are:
We are high school Biology teachers who love teaching and getting our students excited about science. We believe that science is a verb and that our students learn best by rolling up their selves and actually doing science by questioning, planning, executing, explaining and evaluating. Here in this website you will find various activities that we have either modified to fit our classroom our created ourselves. We are always interested in hearing what great work other educators are doing in their classrooms! Please feel free to contact us with any questions or comments. We both love teaching and want to share what we have learned with others. Also please share any improvements you have on anything we have shared. The more we all share the better we can all be!

Patti Richardson: prichardson@fhps.net - @PattiRichards19
Kristy Butler: kbutler@fhps.net - @KButlerSCI

Access this document, our other presentation materials and our favorite resources by visiting our website below


- Storyline
  - What storylines are and purpose for a storyline - methodical learning so all connects, not piecemeal - not chapter 1 chapter 2, fact separate from skill but seamless connections
  - On modeling document the story is driven by questions asked by students that generate evidence to answer big question
    - Show connection to the student modeling document
    - Talk about how the what students do are small phenomena to drive the next question
    - Deliberately think about the CCC and SEP that students will do to help them answer the small questions along the way
  - So why draw model of life? Possible yearlong storylines - think about the content that you need to teach, how it connects and what phenomena can link the units.
    - Bio - characteristics of life
    - Chem - atom - compounds and reactions
    - Physics -
    - Earth

- Phenomenon to drive question
  - Gives all students equity - they all have the same exposure, and phenomenon for context
  - Post it note protocol - generate Big question

- What about unit planning?!
  - Standards Unpacking - (see the protocol on the other side)
  - Find a phenomenon to anchor the unit - What question can be asked based on the phenomena?
  - Determine questions that kids have to ask to answer the big question

- Some of our documents
  - DNA modeling document and our storyline
  - Planning document - year long
Phenomena we have used & Question for Unit
- Diversity of Life - organism card sort, video of life and powerpoint of pictures
  - Why is life so diverse?
- Animal & Plant Systems - continue diversity of life - first dissection showing internal diversity
  - How does internal structure and function contribute to diversity?
- Cells Specialization and Organization - continue diversity of life - Tissue slides & Egg Membrane Demo
  - How do cells support living organisms?
- Energy in Living Systems - acorn to an oak tree video, bean germination video
  - How do organisms obtain and use energy? - How does matter cycle and energy flow?
- Cell cycle & division - baby pictures through teen of same child or children, germination videos again
  - How do we grow and develop with all cells having the same DNA?
- DNA to Protein - picture of two different boys same age and very different heights (same boys as phenomena above)
  - How does your DNA give you traits?
- Inheritance and Variation in Traits - family pictures of the two boys from previous phenomena
  - How does your DNA give you traits?
- Human Impacts and Evolutionary History - before and after pictures showing human impact
  - How have humans impacted the Earth?

Other Resources

Unpacking the Framework Protocol

- Read the PE in bold print ONLY
  - Write a paragraph predicting the intent behind the standard.
    - What do you think students will need to know if they are proficient at this performance expectation?
- Read the RED then...
  - Click on the DCI foundation box that matches the PE
  - Skim narrative, interact with text
  - Read the Framework by the end of grade 12, mark it UP!
  - One idea per sticky note ALONE!
  - Compare sticky notes, stack like ones
- Chart Paper
  - Place bullets on sticky paper AND on the evidence chart.
  - Based on the Framework and clarification statement.
- Add the SEPs and CCCs
  - Use the ones that are in the performance expectation to start.
  - These should be unpacked using the Appendix F and Appendix G, figuring out what bulleted ones that you will use at a later date.

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