

May 17, 2016

1

# MS Science Adoption Committee



# Agenda



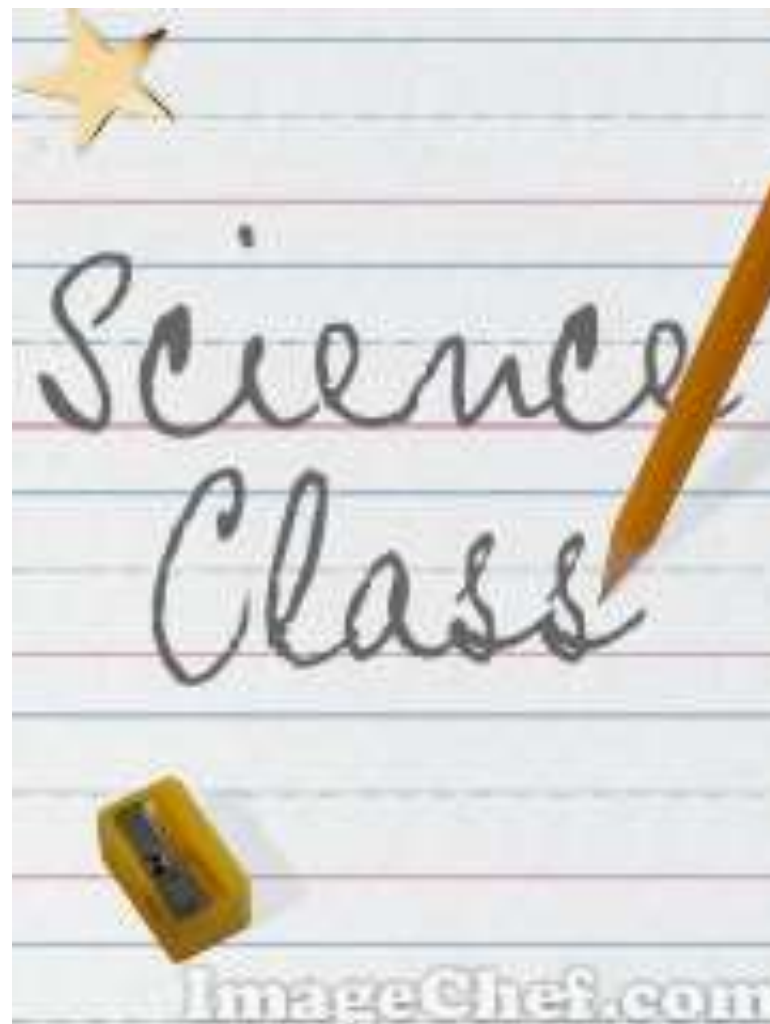
- Introductions and Review
- Overview Adoption Committee Evaluations
- Proposal to Reduce From 3 to 2
- Draft Pilot Proposal
- Time with Materials
- Decide on Pilot Proposal and Reduction
- Committee Evaluation Rubric
- Teacher, Parent and Student Surveys



# Get to Know Each Other

Please share

- Your Name
- Your school/role
- Your worst science class experience





# Norms

- Flip name cards up when you want to speak
- Keep an open mind
- Time for technology breaks
- Be honest
- Assume positive intentions
- Listen for understanding
- Ask questions



# Consensus

## Consensus for Establishing the Decision-Making Process

- Thumbs Up: I think it's a good decision and will advocate for it.
- Thumbs Sideways: I am comfortable with the proposal but might want to discuss some minor issues.
- Thumbs Down: I still need to discuss certain issues and suggest changes that should be made.



# Five Innovations of NGSS

1. Reflects three dimensional learning (and assessment)
2. Students engage in explaining phenomena and designing solutions
3. Incorporates engineering design and the nature of science as practices and cross cutting concepts
4. Coherent learning progressions from K-12
5. Connects to English language arts and mathematics

# Adoption Committee Evaluation



Nov 14, 2016 12:30-3:30

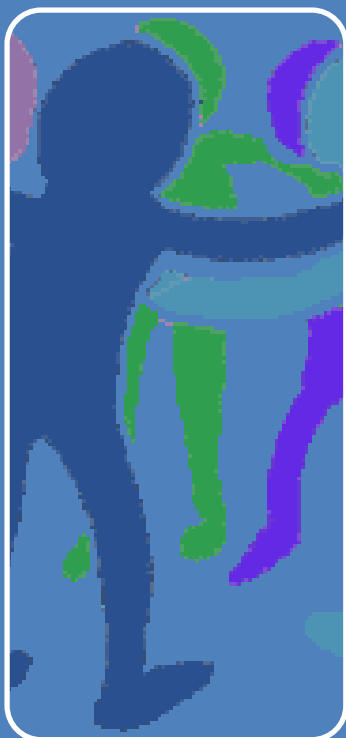
- Divide into three teams, evaluate the IQWST program
- Use BSD adapted PEEC evaluation document



Jan 17, 2017 12:30-3:30

- Same teams as above, evaluate the Amplify program
- Use BSD adapted PEEC evaluation document

# Adoption Committee Recommends



February 16, 2017, 3:30-5:30

- Review Data
  - Adoption Committee Evaluations
  - Pilot teacher surveys
  - Student surveys
  - Parent surveys
- Discussion and Recommendation





# Proposal to Reduce from 3 to 2

Should have only 2 materials to pilot

Developers recommend dropping Project Based Inquiry Science (PBIS):

- Missing a clear conceptual story within a year and between years
- Lacking computer science/computational thinking connections
- Doesn't encourage the use of an electronic platform for initial use



# Draft Pilot Proposal (2 Materials)

1. Get IQWST trained in August (date TBD)
2. Start pilot units September 19
3. Get trained on Amplify (October 14 in-service day)
4. Wrap up IQWST
5. Survey teachers and students about IQWST
6. Start Amplify
7. Wrap up Amplify by end of January
8. Survey teachers and students about Amplify
9. Survey parents about materials



# Beginning of the Year Options

September 1-16, 2016

- Engineering design challenges
- Collect baseline data for science practices
- Module 1 of CS in science
- Laying the foundation of a positive classroom culture using
  - Proactive classroom management strategies
  - Houston Kraft - Character Strong challenges
- Remember beginning of year schedule changes, assemblies, etc.

## 6<sup>th</sup> grade

Where have all the creatures gone?

Metabolism

Metabolism  
Internship

## 7<sup>th</sup> Grade

What makes weather change?

Plate Motion

Plate Motion  
Internship

## 8<sup>th</sup> grade

How can I make new stuff from old stuff?

Force and  
Motion

Force and  
Motion  
Internship



# Length of Units

- IQWST 6-8 weeks
- Amplify – three types
  - Launch – 10 lessons (2 weeks)
  - Regular Unit – 19-20 lessons (4 weeks)
  - Internship – 10 lessons (2 weeks)



# Review of Materials - Amplify

## Amplify Science

- Developed for NGSS by Lawrence Hall of Science (UC Berkeley) in partnership with a publisher Amplify

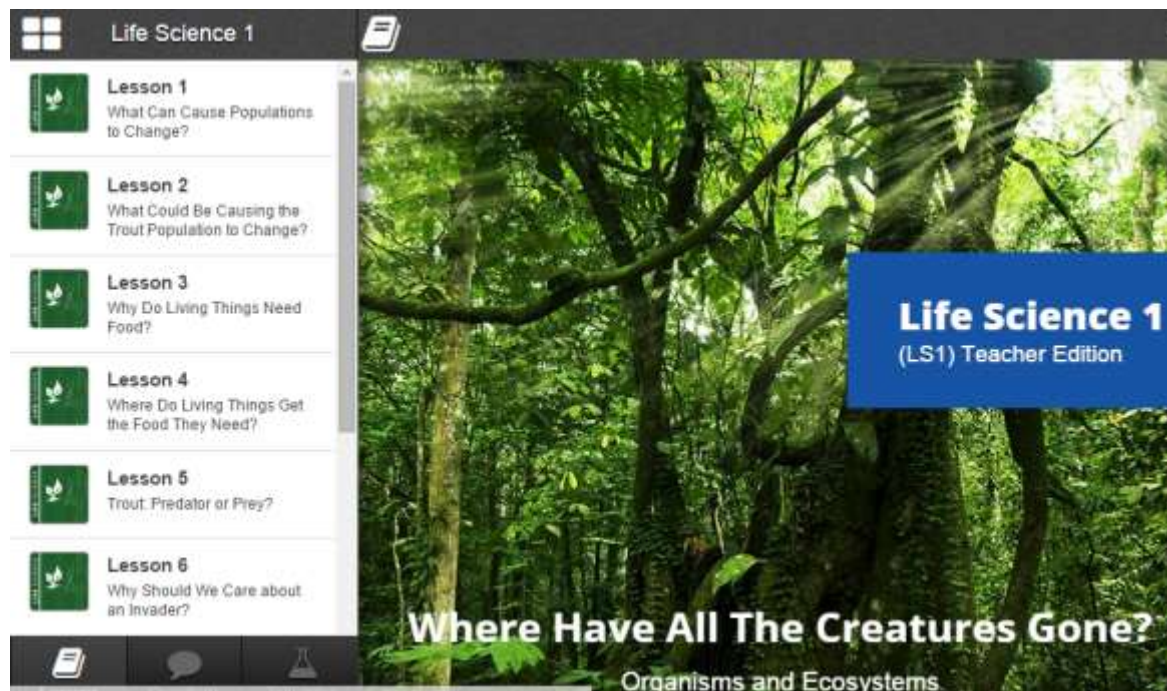
The screenshot shows the Amplify Science website interface. At the top right, the "AmplifyScience" logo is visible. Below it, a navigation link says "Back to Amplify Science". The main header features the text "11 Lessons" and "Geology on Mars" in large white font, set against a background image of a Mars rover on the red planet. Below the header, a section titled "What's in This Unit?" contains introductory text: "For thousands of years, people have looked up into the night sky and won in the universe. As scientists seek the answer to the question, they first look at Earth to examine". A red link "READ FULL OVERVIEW" is positioned below the text. The bottom section displays three chapter cards. The first card, "Chapter 1: Comparing Earth and Rocky Planets", includes an image of a wooden table with a laptop and a plant, and is labeled "3 Lessons". The second card, "Chapter 2: Using Models as Evidence", includes an image of a woman in a blue shirt working at a desk with a globe, and is also labeled "3 Lessons". The third card, "Chapter Analyzi: Evidence", includes an image of a desert landscape and is partially visible.



# Review of Materials - IQWST

**IQWST** (Investigating and **Q**uestioning our **W**orld through **S**cience and **T**echnology)

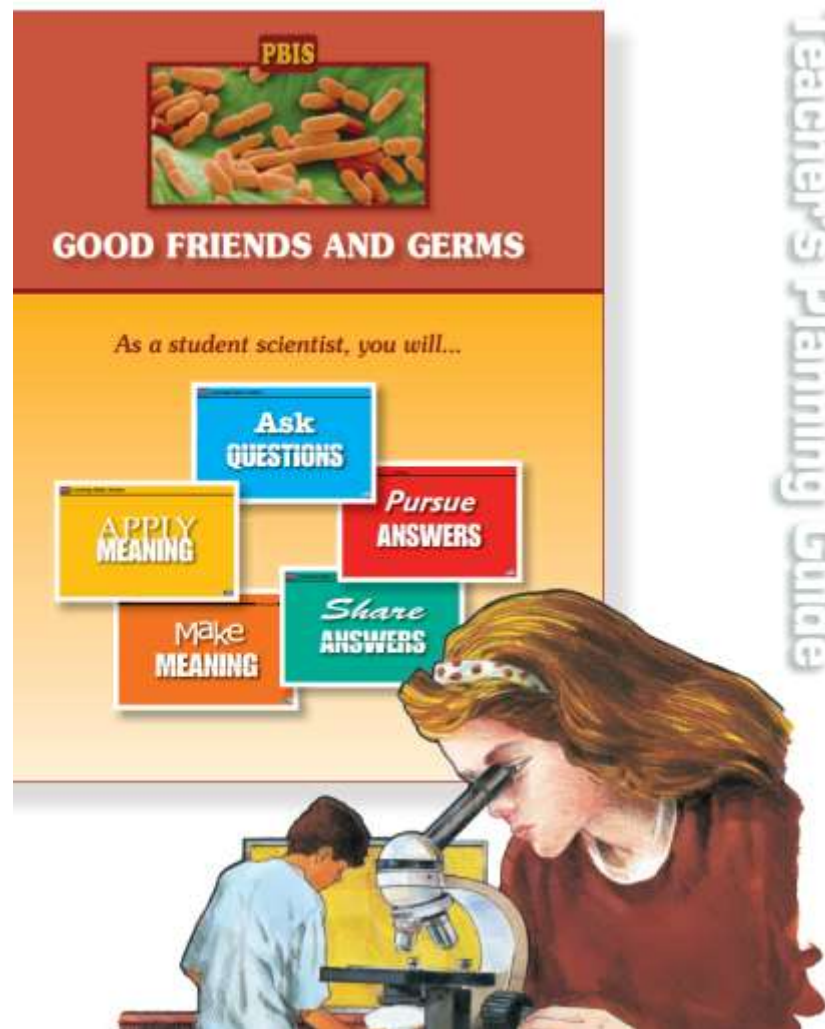
- Originally developed as a 10 year NSF funded grant by a team of researchers and educators out of MSU– Joe Krajcik was a lead in this project – simultaneous to Framework development
- Published by Activate Learning, some original researchers still on the project



# Review of Materials - PBIS

## Project Based Inquiry Science (PBIS)

- Originally developed as a long term NSF funded grant prior to the Frameworks development – Joe Krajcik was a lead in this project
- Published by It's About Time







# Explore Materials

## With Your Group:

- Decide what individuals or the group will look at first
- “I’m curious about...”
- “I wonder how each material addresses \_\_\_\_\_ topic...”
- “What resources are available for parents?”

## Keep in Mind:

- Proposal to Reduce Number of Pilot Materials
- Draft Pilot Proposal



# Decision – Reduction in Materials

- Do we have enough information to decide to reduce the materials to pilot?



# Decision – Draft Pilot Proposal

- Do we have enough information to decide on the Draft Pilot Plan Proposal?
  - Timing (start and end times)
  - Units



# Committee Evaluation Criteria – Simplified

- Reduced to 8 Criteria
- Simplified Scoring
  - 4, 3, 2, 1 - 4 is above standard, 3 is meeting standard, 2 is approaching standard, 1 is below standard
- One material per Wednesday afternoon
- Two Wednesday afternoons total



# Teacher, Student and Parent Surveys

- Aligning with elementary science adoption
- Checking for validity with Naomi, director of evaluation and assessment
- Will send out copies for your feedback



# Middle School Science Adoption Committee Website

<http://www.bsd405.org/get-involved/advisory-committees/imc/middle-school-science-adoption/>

## Next Steps:

- Provide feedback on surveys via email
- November 14, 2016 meeting to evaluate IQWST
  - Release 12:30-3:30
- January, 17 2017 meeting to evaluate Amplify
  - Release 12:30-3:30
- February 16, 2017 meeting to look at the data and make a recommendation to the IMC
  - After School 3:30-5:30