

# Biology Adoption Committee

DECEMBER 19, 2018

PLEASE SIT WITH YOUR ASSIGNED TEAM

- PHIL, YUSRA, MIKE
- JAKE, SUE, BETH, CINDI
- SUZANNE, ROSE, JEREMY

\*Angie DiLoreto, Science Curriculum Developer – Facilitator

\*Cindi Guyer, BHS Science teacher

\*Phil Allen, IHS Science Teacher

\*Beth Gatewood, IHS Science Teacher

Lee Holt, IS Science Teacher

\*Jeremy Brown, NHS Science Teacher

\*Rose H, student

\*Yusra Obaid, OMS Advanced Learning Science Teacher

\*Mike Schiehser, BHS principal

John Delpont, Special Education specialist

\*Sue Kelly, English Language Learner specialist

Caroline Titan, Equity specialist

\*Jake Duke, STEM Developer

\*Suzanne Reeve, SHS Instructional Technology Curriculum Leader

\*Tom Duenwald, central office director and parent

\*Present

# Agenda

- ▶ Introductions
- ▶ Review norms, process, timeline
- ▶ Evaluation Document Update
- ▶ Antibiotics unit Evaluation
- ▶ Next steps and Check-out




# Get to Know Each Other




- ▶ Please share
    - ▶ Your Name
    - ▶ Your school/role
    - ▶ Favorite week before Winter Break activity
- 

# Team Norms



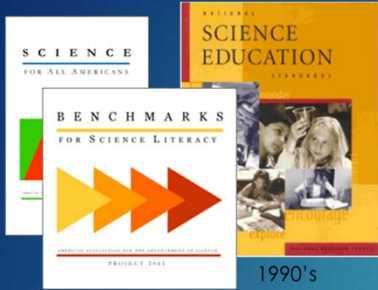
- ▶ Using the cards when you want to speak
  - ▶ Keep an open mind
  - ▶ Be present (limit technology use)
  - ▶ Be honest
  - ▶ Assume positive intentions
  - ▶ Listen for understanding
  - ▶ Ask questions
- 

## Consensus 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.

# Important Convergence

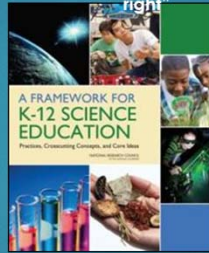


1990's



1999-2009

Step 1  
"Getting the science right"




Step 2  
"States developing NGSS"

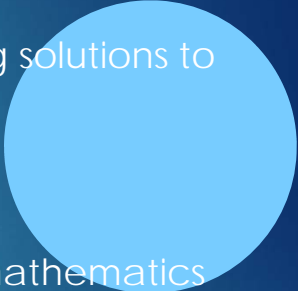


The Framework & Standards were reviewed and refined by over 40,000 teachers, scientists, engineers, educational researchers, youth and other stakeholders in K-12 science ed.

# Reflect on Innovations



## 5 Innovations of NGSS:

1. Making sense of phenomena and designing solutions to problems
  2. Three dimensional learning
  3. Building K-12 Progressions
  4. Alignment with English language arts and mathematics
  5. All standards, all students
- 

## Timeline *Draft*

Date	Task
10/24/18	Begin adoption committee orientation, look at NGSS, look at evaluation docs
12/19/18	Use the unit evaluation docs to review Next Gen Storylines – <i>Why Don't Antibiotics Work Like They Used To?</i>
2/27/19	Use the unit evaluation docs to review Educurious – <i>Environmental Health</i>
3/20/19	<i>Use the course evaluation docs to review both materials</i>
4/24/19	<i>Review Teacher and Student Survey Data, review Evaluation data, determine if we have enough evidence to make a recommendation</i>

We changed the focus of the March meeting to review all of the units in the course with a course evaluation tool.

Our April meeting will review Teacher and Student Survey Data, committee data and make a recommendation.



# Committee Evaluation Categories



1. Standards Alignment
  - ▶ Storyline/Phenomenon/Solve Relevant Problems
  - ▶ Integration of Three Dimensions
2. Assessment
3. Inclusive Educational Practices
4. Evaluation of Bias Content
5. Instructional Planning and Support

# Evaluation Tool Update

- ▶ Collected feedback, sought additional feedback
- ▶ Reviewed the components with developer colleagues
- ▶ Glossary Link: <http://bit.ly/BSDBioGloss>
- ▶ Changes:
  - ▶ Removed components – add later for course eval
  - ▶ Some additional components – equity lens
  - ▶ Negative bias score

The Review Criteria document is the committee Evaluation Tool. The Review Criteria document was revised. We adapted a glossary to support committee members in using the Review Criteria with the two pilot units.

## Removed Components – Course Eval

14. The instructional program requires students to use and build their knowledge of the Science and Engineering Practices throughout the course:	
SEP 1: Asking Questions (science) and Defining Problems (engineering)	Rating:
SEP 2: Developing and Using Models	Rating:
SEP 3: Planning and Carrying Out Investigations	Rating:
SEP 4: Analyzing and Interpreting Data	Rating:
SEP 5: Using Mathematics and Computational Thinking	Rating:
SEP 6: Constructing Explanations (science) and Designing Solutions (engineering)	Rating:
SEP 7: Engaging in Argument from Evidence	Rating:
SEP 8: Obtaining, Evaluating, and Communicating Information	Rating:

Since we are only evaluating one unit in each material in our deep dive, we removed the elements that referred to whole course evaluation. Those will be discussed at the 3/20/19 meeting.

## New Components – Equity Lens

6. Phenomenon is relevant and meaningful to students, and offers an opportunity to explore historical and structural racism, and how power and privilege plays out (e.g. environmental social justice, like water issues in Flint, Michigan)

4. Assessments have culturally relevant or responsive content (e.g. multiple cultural perspectives)

3. Instructional materials include options for how to connect instruction to students' home, neighborhood, community, and/or culture, with a lens on social justice and on sustainability.

# Modified Scoring – Bias Table

**For This Table Only:**

**4: Superior Evidence   3: Strong Evidence   2: Moderate Evidence   1: Minimal Positive Evidence**  
**0: No Evidence   -1: Negative Evidence (e.g. shows bias)**

**Instructions**

The column categories are umbrella terms meant to encompass all examples to consider while reviewing the instructional materials.

For categories represented, evaluate the level of evidence for each of the numbered components.

1. Reflect qualities such as collaboration, compassion, intelligence, imagination, and courage.

Gender	Sexual Orientation	Race/Ethnicity	Culture	Physical Disability	Physical Characteristics	Age	Family Structure	Socioeconomic Status

In order to provide a numeric effect of *negative evidence* over *absence of representation* (No Evidence), we added a “Negative Evidence” score with an associated -1 score.

## Vote on Changes

- ▶ 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.

Unanimous decision to support the changes in the Review Criteria

# Scoring Training



- ▶ EVIDENCE in the Instructional Materials
  - ▶ Superior evidence – rarely achieved, best example of this component
  - ▶ Strong evidence
  - ▶ Moderate evidence
  - ▶ Minimal evidence
  - ▶ No evidence – not present, or not found
- ▶ Describe evidence location on Evaluation document

We developed operational descriptions of the Evidence in instructional materials – shown in the next slide

## Scoring Training

4 Superior Evidence	3 Strong Evidence	2 Moderate Evidence	1 Minimal Evidence	0 No Evidence
Strong representation	Consistent	Present in a few places	Inferred but not explicitly stated	Not present
Clear connections and through-line	Many places	Appropriate opportunities	Saying criteria there but not really in depth	
Relevant	Where relevant, deeply attended to	Present but not elaborated	Shallow	
Explicitly described	Clear throughout			

\*Be sure to describe evidence location(s) on Evaluation document

## EVIDENCE in the Instructional Materials

Superior evidence – rarely achieved, best example of this component

Strong evidence

Moderate evidence

Minimal evidence

No evidence – not present, or not



found

Describe evidence location on  
Evaluation document

# Antibiotics Materials Overview

Why Don't Antibiotics Work Like They Used To?

NGSS High School Evolution Unit



[STORYLINE - BEND 1](#)  
[STORYLINE - BEND 2](#)







Click the Images Below to Access the Unit Level Folders

<b>EVOLUTION UNIT</b>	<b>CURRICULUM: Front Matter</b>	<b>EVOLUTION: Assessments</b>	<b>BEND 1: Addie</b>
	<b>EVOLUTION: Front Matter</b>	<b>EVOLUTION: Materials</b>	<b>BEND 2: Juncos</b>

Orientation to the online materials

# Antibiotics Materials - Deeper

Sh... > Unit 1 Evolution: W... > Bend... > Lesson 2: How com

Name ↓	Owner
 Teacher Guide Lesson 2: How Common is this P... 	inquiryhub inquiryhub
 Student Reading #2 About Resistant Bacteria in ... 	inquiryhub inquiryhub
 Student Activity Sheet Lesson 2: How common i... 	inquiryhub inquiryhub

Orientation to materials

# Protocol



- ▶ Every team evaluates Standards Alignment during the first hour
- ▶ Check in with questions as needed
- ▶ Group check in at \_\_\_\_\_
- ▶ Teams evaluate different categories
- ▶ Group check in at 4:55
- ▶ Feedback on sticky notes
  - ▶ Plus
  - ▶ Delta
  - ▶ Questions

# Feedback

+

What worked for you today?

△

What would you change?

Questions?