NGSS Collaborative

12 March 2015
2-3 pm
McCormick Place, W187b
What is the Chicago NGSS Collaborative?
Findings to Date
Stories from the Field
Next Steps
Q & A
What is the Chicago NGSS Collaborative?
NGSS Collaborative

- One funding agency:
  - The Searle Funds at The Chicago Community Trust, Gudelia Lopez

- Two Pre-K to 12th grade systems:
  - Chicago Public Schools, Chandra James
  - Big Shoulders Fund Schools (within the Archdiocese of Chicago), Rebecca Lindsay-Ryan

- Three universities:
  - DePaul University, Wendy Jackson
  - Loyola University Chicago, Rachel Shefner
  - University of Chicago, Liz Lehman
Supported Networks

CPS Network 2
CPS Network 3
CPS Network 9
Big Shoulders Fund Schools
Goals: NGSS Collaborative

1. A model for NGSS implementation in school systems
2. Expand capacity to implement the NGSS
3. Establish communities of learners and practitioners
4. Improve student outcomes and success in science
Focus of Learning

- Year 1
  - Science and Engineering Practices
- Year 2
  - Crosscutting Concepts
- Year 3
  - DCIs and integration of all dimensions
- Year 4
  - Working towards sustainability
# Components of the NGSS Collaborative

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
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<tbody>
<tr>
<td>Teacher Leader Institutes</td>
<td>Two teachers from each of 70 schools</td>
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<td>Four full school day workshops</td>
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<tr>
<td>Professional Learning Communities</td>
<td>All TLI participants encouraged to attend</td>
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<td>Four afterschool 3 hours</td>
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<tr>
<td>Deeper School Supports</td>
<td>Two teachers from each of 30 schools</td>
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<td>Instructional classroom coaching monthly</td>
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NGSS Collaborative, Quarterly Focus 2014-15

- Teacher Leader Institute (TLI)--Coherent Professional Learning on High Quality Science Teaching and Learning as Aligned with the NGSS for Two Teacher Leaders Per School
- Professional Learning Community (PLC)--Extended Support of Learning from TLI
- Coaching--Intensive Classroom Support for a Subset of Teacher Leaders attending Both TLIs and PLCs.

TLI 1
- Crosscutting Concept #5: Energy & Matter
- Using Notebooks to Promote Written Explanations and Student Discourse
- Leadership: Setting Individual Goals for Leadership

PLC 1
- Developing a deeper understanding of the learning in TLI 1 and exploring classroom applications
- Using science notebooks in order to support written explanations, enhance communication skills, support differentiated instruction, and guide future instruction

Coaching

TLI 2
- Crosscutting Concept #4: Systems and System Models
- Questioning Strategies and Talk Moves to Promote Student Discourse
- Leadership: Anticipating Resistance to Change

PLC 2
- Developing a deeper understanding of the learning in TLI 2 and exploring classroom applications
- Using Elicit/Probe/Challenge Questions to learn about student ideas and to challenge student thinking
- Establishing classroom norms and developing “talk moves” to promote discourse and to engage students in the Science and Engineering Practices

Coaching

TLI 3
- Crosscutting Concept #2: Cause & Effect
- Using Questioning Strategies and Talk Moves to Promote Student Discourse
- Leadership: Advocating for Change

PLC 3
- Developing a deeper understanding of the learning in TLI 3 and exploring classroom applications
- Using different types of questions to help ALL students extend and apply their thinking in small group and whole class settings.
- Sustaining classroom norms and using “talk moves” to promote discourse

Coaching

TLI 4
- Crosscutting Concept #1: Patterns
- Anticipating Student Misconceptions through Questioning and Written Explanations
- Leadership: Exploring and Developing a School-based Needs Assessment

PLC 4
- Developing a deeper understanding of the learning in TLI 4 and exploring classroom applications
- Learning common misconceptions related to the science content they are teaching
- Providing opportunities for written work and using questioning strategies to support students in overcoming misconceptions

Coaching

12/18/14
School District / Network Perspective

Chicago Public Schools
- Chandra James, Director of Science

Big Shoulders Fund
- Rebecca Lindsay-Ryan, Senior Director, Academic Programs
Findings to Date
A Logic Model

... Steps Toward Implementation

**Inputs:**
- Expertise
- Resources
- Coordination

**Activities:**
- Teacher PD
- Administrator PD
- School-level Support
- District-level Support

**Benchmarks:**
- Engagement
- Depth
- Sustained
- Community-focused

**Outcomes:**
- Teacher Learning
- Teacher Practice
- Teacher Leadership
- School Implementation

**Evaluation Instruments and Methods:**
- Google site for collaborative event plans and resources
- Evaluations after each PD event
- Classroom Coach observations and coaching log
- Surveys at the end of each year
- Teacher interviews and observations
- Administrator interviews
A Logic Model

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Findings to Date

- Teachers attending all PD compared to some
  - Learned the NGSS Practices
  - Confident implementing in classrooms

- Teachers strongly intended to implement Collaborative goals but …
  - Not fully confident about their
    - Content knowledge
    - Advocacy skills
    - Collaborative learning skills

- Teachers felt somewhat supported by district leaders and their principals but …
  - Identified a number of barriers to good NGSS implementation, like
    - Availability of science materials
    - Time to prep
    - Time to teach
  - Also held an overall belief that NGSS was going to be “troublesome”
Stories from the Field
Stories from the Field

- How has the work of the Collaborative supported your implementation of the NGSS in your classroom?
- How has the work of the Collaborative supported you as you begin working with your colleagues?
- How has the work of the Collaborative supported you as you begin working at the school level?
Coach / Teacher Perspective

Mollison Elementary School
- Jen Lewis, Kindergarten Teacher

University of Chicago
- Jen Hellige, Instructional Coach

School Profile
- PreK-8
- 436 Students
- 99% Black, 1% Hispanic
- 92% Low Income
- 10% Diverse Learners
- 1% Limited English
Coach / Teacher Perspective

St. Nicholas Cathedral Elementary School
- Melissa Talaber, Middle Grade Science Teacher

Loyola University Chicago
- Christine Cook, Instructional Coach

School Profile
- PreK-8
- 144 Students
- 86% White, 12% Hispanic, 3% Black, 3% Asian
- 73% Low Income
- 82% speak a language other than English at home.
Teacher / School Perspective

Camras Elementary
- RJ Argumedo, Middle Grade Science Teacher

Loyola University Chicago
- Hethyr Tregerman, Instructional Coach

School Profile
- PreK-8
- 1029 Students
- 89% Hispanic, 7% White, 2% Asian, 2% Black
- 92% Low Income
- 12% Diverse Learners
- 38% Limited English
School Team Perspective

West Ridge Elementary
● Alan Grovesteen, 5th and 6th Grade Science Teacher
● Steve Robnick, 7th and 8th Grade Science Teacher
● Antigoni Lambrinides-Sofios, Principal
● Sarah Rabe, Asst. Principal

DePaul University
● Carla Shortino, Instructional Coach

School Profile
➢ PreK-8
➢ 753 Students
➢ 33% Asian, 33% White, 25% Hispanic, 6% Black
➢ 91% Low Income
➢ 10% Diverse Learners
➢ 46% Limited English
Next Steps/Q&A
Thank you!

For additional information about the NGSS Collaborative, contact Lisa Parker-Short, Project Manager, at lisaparkershort@gmail.com