

Secondary Science Proposal

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Frankie Valenzia, Seventh Grade Science Teacher

Aracelys Rios, ELL/Bilingual Biology/Chemistry/IPS
Teacher

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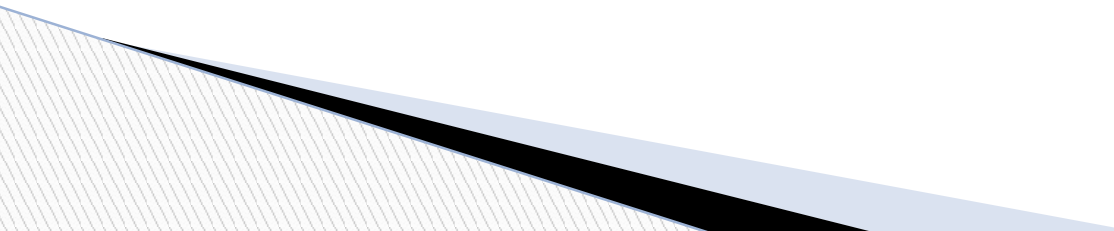
Brigid Trimble, Biology Teacher

April 10, 2017

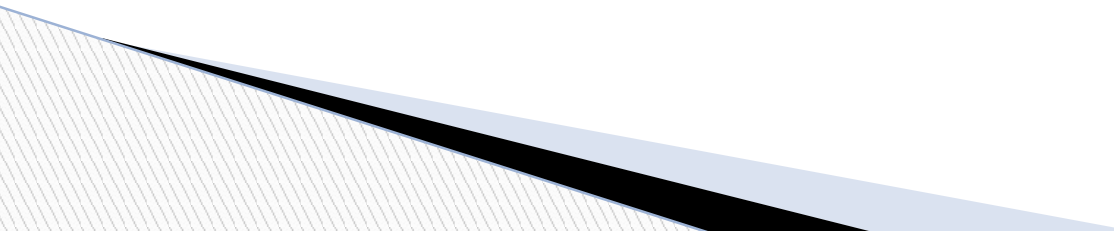


Purpose

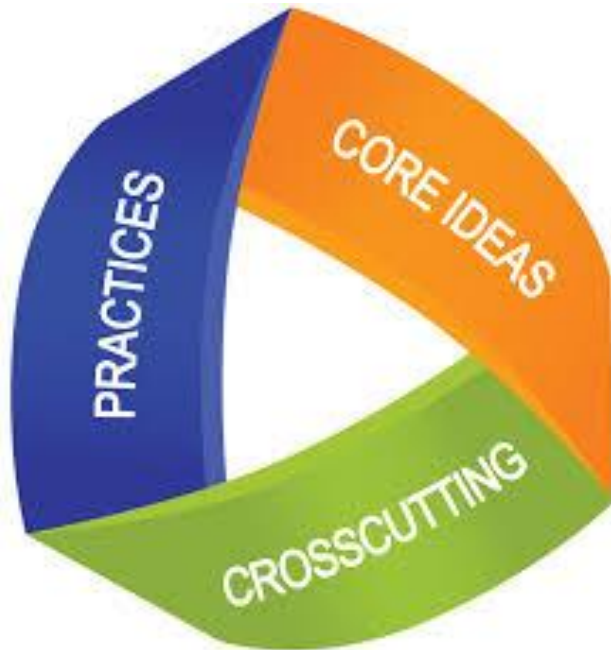
The purpose of this proposal is to approve the adoption of curriculum and curriculum resources for 7th Grade and 8th grade science courses as well as Biology, Chemistry and Physics.



Rationale

- **Current resources are not aligned with the Illinois Learning Standards for Science or our U-46 curriculum**
 - **Our current resources are outdated and not aligned with best pedagogical practices**
 - **The curriculum maps were developed by a diverse group of U-46 teachers**
 - **These resources were evaluated and selected by U-46 Early Implementers**
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Rationale

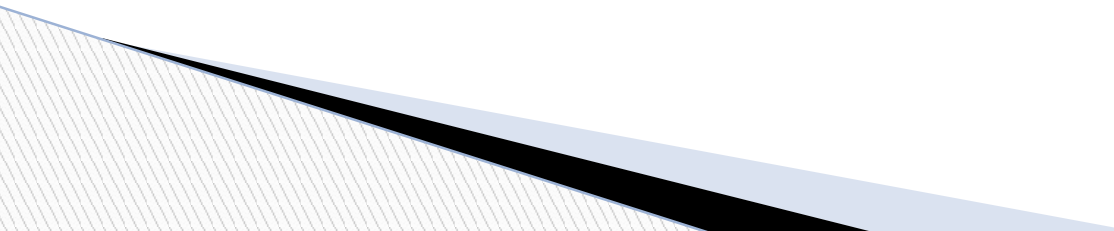


The Proposed Resources

| Grade Level | Recommended Resource |
|---------------|--|
| Seventh Grade | STC/Carolina Middle School Science |
| Eighth Grade | STC/Carolina Middle School Science |
| Biology | HMH <i>Science Dimensions Biology 2018</i> |
| Chemistry | HMH <i>Chemistry 2017</i> |
| Physics | HMH <i>Physics 2017</i> |

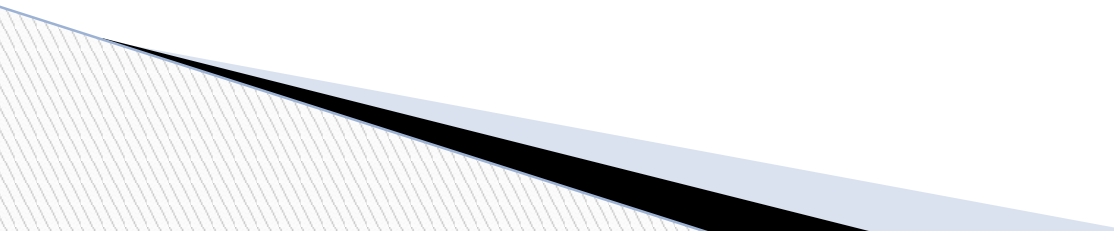
STC/Carolina

Middle School Science

- Inquiry based and hands-on
 - Aligns with curriculum and standards
 - Comprehensive Spanish translation and English Language Learner resources
 - Materials
 - Module based kits
 - Print and online student and teacher editions
 - Consumable and non-consumable materials in kits
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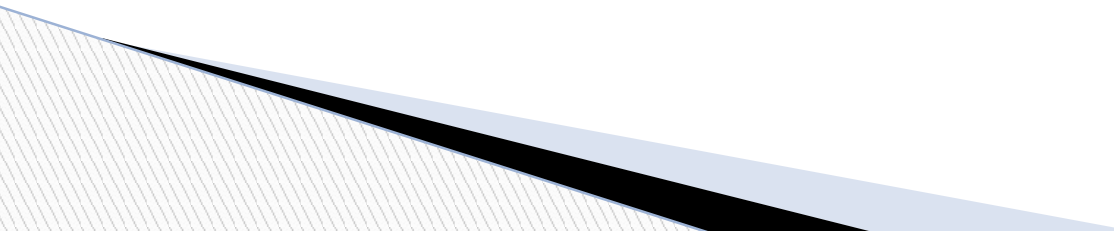
HMH

Science Dimensions Biology 2018

- Inquiry based and hands-on
 - Aligns with curriculum and standards
 - Comprehensive Spanish translation and English Language Learner resources
 - Materials
 - Student and teacher edition (print and online)
 - *Cliff notes* biology
 - Digital management center
 - Vernier Labquest probes
 - Laptop carts
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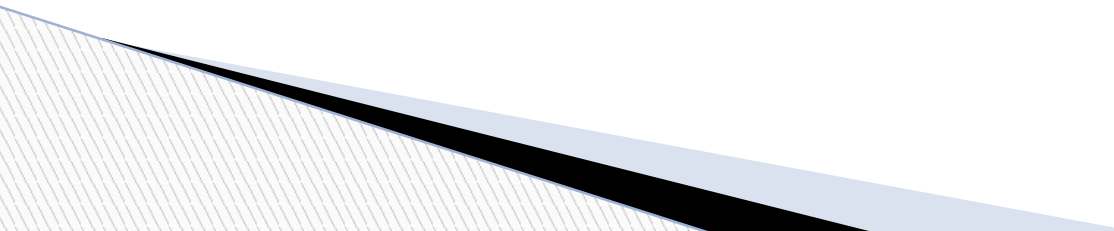
HMH

Chemistry 2017

- Inquiry based and hands-on
 - Aligns with curriculum and standards
 - Comprehensive Spanish translation and English Language Learner resources
 - Materials
 - Student and teacher edition (print and online)
 - Interactive student reader
 - Digital management center
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HMH

Physics 2017

- Inquiry based and hands-on
 - Aligns with curriculum and standards
 - Materials
 - Student and teacher edition (print and online)
 - Interactive student reader
 - Digital management center
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Recommendation for Implementation

Adoption of proposed curriculum and curricular resources for
the 2017–2018 school year.



Professional Development

- May 5th and May 31 Professional Practice Days
 - Pending Board of Education approval we can proceed with optional PD during the May PPD to focus on the instructional resources
- On-going professional development
 - Summer offerings, tentative District Collaborative Days and after school offerings

Cost Analysis

| | Instructional Material Cost | Professional Development Cost | Total Cost | Cost per Student (# of students) |
|--|--------------------------------|----------------------------------|----------------|--------------------------------------|
| Seventh Grade STC/Carolina <i>Matter and Its Interactions, Genes and Molecular Machines, Structure and Function</i> | \$787,491.00 | Included | \$787,491.00 | \$252.23/student (3,122 students) |
| Eighth Grade STC/Carolina <i>Electricity, Waves and Information Transfer, Space Systems Exploration, Weather and Climate Systems, Earth's Dynamic Systems</i> | \$1,201,397.40 | Included | \$1,201,397.40 | \$411.71/student (2,918 students) |

Cost Analysis

| | Instructional Material Cost | Professional Development Cost | Total Cost | Cost per Student (# of students) |
|--|--------------------------------|---|--------------|--------------------------------------|
| Biology HMH <i>Science Dimensions</i> | \$391,383.00 | \$35,150.00 | \$426,533.00 | \$369.38/student (2,717 students) |
| Biology 135 Vernier Labquest 2 Biology Deluxe Kits | \$421,621.20 | Included | \$421,621.20 | |
| Biology Flinn <i>POGIL Activities for High School Biology</i> | \$7,290.00 | No PD required this a reference book for teachers | \$7,290.00 | |
| Biology Laptops 540 units | \$131,760.00 | None | \$131,760.00 | |
| Biology Laptop Carts 15 carts | \$16,402.80 | None | \$16,402.80 | |

Cost Analysis

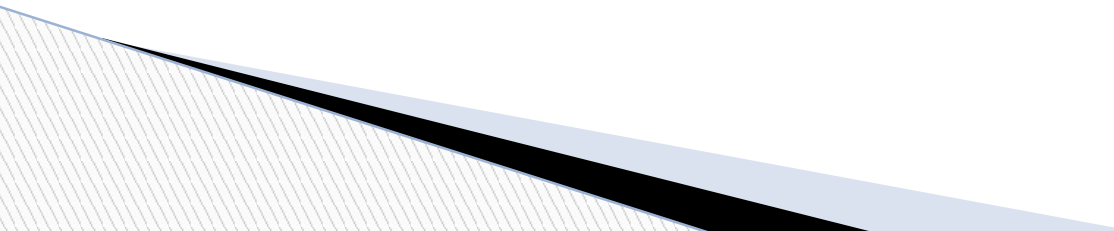
| | Instructional Material Cost | Professional Development Cost | Total Cost | Cost per Student (# of students) |
|--|--------------------------------|----------------------------------|--------------|--------------------------------------|
| Chemistry HMH <i>Science Dimensions</i> | \$192,590.00 | \$13,725.00 | \$206,315.00 | \$136.45/student (1,512 students) |

Cost Analysis

| | Instructional Material Cost | Professional Development Cost | Total Cost | Cost per Student (# of students) |
|--|--------------------------------|----------------------------------|--------------|--------------------------------------|
| Physics HMH <i>Science Dimensions</i> | \$124,059.00 | \$4,575.00 | \$128,634.00 | \$127.61/student (1,008 students) |

Cost Analysis

Total cost for the purchase of instructional materials and professional development for 7th Grade, 8th Grade, Biology, Chemistry and Physics is **\$3,327,444.40**



Evaluation of Change

- Analysis of end of unit performance tasks
- Gather feedback and insight from teachers on the instructional materials during quarterly meetings and Professional Practice Days

