



Highline Public Schools Board Action Report

DATE: June 7, 2023

FROM: Dr. Ivan Duran, Superintendent

LEAD STAFF: Kathy Emerick, Director of PreK-Elementary Success

For Introduction: June 21, 2023 **For Action:** July 12, 2023

I. TITLE K-5 Science Instructional Materials Adoption

Select one: New Item Renewed Item Annual Item Revised Item

II. WHY BOARD ACTION IS NECESSARY

Per Board policy 2020 and state law, the School Board is responsible for the adoption of all core materials used in the District as recommended by the Instructional Materials Committee.

Additionally, as outlined in Board policy 6225, the School Board must approve contracts exceeding \$250,000.

III. BACKGROUND INFORMATION

Teaching, Learning, and Leadership staff conducted a course of study review to determine whether the instructional materials currently in use for kindergarten to fifth grade Science align with standards, and their overall effectiveness. Staff found clear evidence that the current materials do not align with standards, requiring significant supplementation with additional materials to teach the current standards. This led to the formation of a materials adoption team -- see the attached memo for detailed information on the process they completed. The adoption committee has recommended Amplify Science from The Laurence Hall of Science as the new instructional materials for kindergarten to fifth grade Science.

IV. RECOMMENDED MOTION

I move that the Highline School Board approve the adoption of Amplify Science from The Laurence Hall of Science as the new instructional materials for kindergarten to fifth grade Science for a grand total of \$4,193,104 in a span of 8 years with any minor modifications as approved by the Superintendent.

V. FISCAL IMPACT/REVENUE SOURCE

Fiscal impact to this action will be \$2,082,324 - \$2,093,119 (range) for initial implementation in the 2023-2024, 2024-2025, and 2025-2026 school years, and \$403,462 - \$419,997 (range) in annual consumable costs to replenish lab supplies. The revenue source for the initial cost is ESSER 1309; the revenue source for the annual costs will be from Basic Education.

Expenditure: One-time Annual

VI. APPLICABLE POLICY(S)

This action is in compliance with the following:
Policy 2020 and Policy 6225

VII. ALTERNATIVES

If materials are not adopted, Science instruction will not be supported with consistent culturally relevant materials;

teacher capacity will be impacted by materials procurement, limiting their focus on instruction.

VIII. COMMUNITY ENGAGEMENT

Community Engagement Required: Yes No

Family and community members provided feedback during events in which they engaged with staff to learn about the available options. Community members participated on the adoption committee as well.

IX. ATTACHMENTS

Science K-5 Materials Adoption Recommendation Memo to the Board
Recommendation for K-5 Science Instructional Materials Adoption Presentation

M E M O R A N D U M

To: School Board of Directors
From: Kathy Emerick, Director of PreK-Elementary Success
CC: Dr. Ivan Duran, Superintendent
Date: June 21, 2023
Re: Science K-5 Materials Adoption Recommendation

Introduction: As per Board Policy 2020, a team was created to review the instructional materials for Science in Kindergarten through fifth grade. An adoption committee of 26 individuals consisted of 12 teachers, 1 paraprofessional, 1 school administrator, 9 parents and community members, and 3 Central Office specialists.

This document details the process followed by the committee that led to a **consensus to move forward with adopting Amplify Science from The Lawrence Hall of Science as the new K-5 curricular materials.**

The Science K-5 Adoption Committee was initially identified in March to April of 2022 and met five times in the 2021-2022 school year, with the first meeting occurring on April 12, 2022 and the last meeting on June 9, 2022. The Committee reconvened on January 5, 2023 and met four times during the 2022-2023 school year, with a final meeting on June 1, 2023. Below is an outline of the steps taken by the Committee that led to our recommendation.

- **April to June 2022: Scoring criteria were developed - found on Page 21 of the [Science K-5 Request for Proposals \(RFP 22/23-1\)](#) [Spring 2022 Meeting Slides](#)**
The committee members reviewed best practices for instruction in the Next Generation Science Standards (NGSS), identified needs for our various programs and board policies, and considered qualities of instructional materials that support educational equity. They then developed the scoring criteria on page 21 in the Request for Proposals.
- **January 2023: Committee Calibration and Norming [1/5/2023 Meeting Slides](#)**
The committee members established norms, reviewed prior committee work and the K-5 Request for Proposals, and calibrated on the timeline and materials review process.
- **January to February 2023: Initial Materials Review - reviewed materials from 8 curricula using the RFP scoring criteria and the [Educators Evaluating the Quality of Instructional Products \(EQuIP\) Rubric for Science](#). [EQuIP Rubric](#)**
 - In accordance with the K-5 Science Adoption Pathways approved by the Instructional Materials Committee (IMC), programs qualified for initial evaluation if they included student-facing materials in both English and Spanish (no publishers who submitted RFP criteria offered student-facing materials in Vietnamese).

- Groups of committee members asynchronously reviewed Amplify, Discovery Education Science Techbook/Mystery Science, Inspire Science, Into Science, National Geographic Cengage, STEMscopes, and Twig Science following established [scoring guidelines](#).
 - Optional drop-in support sessions for committee members were offered on January 19 and February 2, 2023.
- **February, 2023: Pilot Materials Recommendation - Amplify and Discovery Education Science Techbook were selected to pilot.** [2/9/23 Meeting Slides](#)
EQuIP ratings and program alignment with RFP criteria was reviewed and discussed. Of the 15 voting members present, there was one “no” vote, 13 “yes” votes, and 1 abstention.
 - **February 2023: Amplify Science and Discovery Education Science Techbook were reviewed using the OSPI Screening Tool for Biased Content.** [2/16 Meeting Slides](#)
Following the selection of Amplify Science and Discovery Education Science Techbook as finalists, committee members used the OSPI screening tool to evaluate the two programs for potential bias and identified no areas of concern.
 - **February 2023 to May 2023: K-5 Materials Pilot -Amplify and Discovery Education Science Techbook.**
 - 8 committee members who are classroom teachers as well as 12 additional classroom teachers piloted each program for five weeks. Of the piloting classrooms, 8 were dual language classrooms and 12 were non-dual language classrooms. Of these, one was a virtual classroom (Highline Virtual Elementary) and one was a self-contained special education classroom. 11 elementary schools were represented in the pilot.
 - Piloting teachers attended training for the two materials on February 21 (Discovery Techbook) and March 30 (Amplify Science). Teachers who were unable to attend in person attended via Zoom or asynchronously.
 - Throughout the pilot process, teachers collected data for lessons from each program and submitted feedback which included data on teacher and student perception, quality and depth of materials, student learning outcomes, and alignment to Next Generation Science Standards (NGSS). Feedback was submitted through surveys ([survey 1](#), [survey 2](#), [end-of-pilot survey](#)) and results were shared with the Adoption Committee.
 - **April 17-21, 2023: Community Showcases**
Community members were invited to explore and share feedback on the two finalist programs in an in-person showcase on April 17, a virtual informational meeting on April 19, and/or [through the district website](#). About six people attended the in-person or virtual session to explore the Science K-5 materials. Three survey responses were received through the [district website feedback form](#) and shared with the Adoption Committee.
 - **June 2023: Final Evaluation and Recommendation - Amplify Science was recommended for adoption.** [6/1 Meeting Slides](#)
The Committee met to review feedback from piloting teachers and students as well as feedback from the Community Showcases. They rated each of the two pilot programs on multiple criteria:

- Quality of NGSS Instruction (Standards alignment, Depth to which standards are taught)
- Quality of Student Learning Experiences (Engagement, Relevance, Interest) and Student Learning Outcomes (Achievement)
- Quality of Support for Teacher Instruction and Planning (Instructional Strategies, Use of Instructional Planning Materials)

Based on our data, input from the pilot teachers, pilot students, and the community, and guidance on the process from the Instructional Materials Committee (IMC), **the Science Adoption Committee would like to recommend Amplify Science from The Lawrence Hall of Science as the new core instructional curriculum for Science grades K-5.** The committee found that this program offered engaging science learning opportunities with a high quality of the following important characteristics:

- **Support for standards-based instruction and assessment:** Piloting teachers reported that, on average, more than half of students met the intended learning goal and demonstrated understanding of the Next Generations Science Standards (NGSS) associated with the lesson/assessment. 100% of piloting teachers reported that the lesson/assessment matched the rigor of the standard(s).
- **Engaging student learning experiences:** Piloting teachers reported that hands-on activities, interactive tools, and unit readers kept students interested in the content and supported them in thinking, reading, and writing like scientists.
- **Culturally responsive instructional practices:** The student-centered inquiry learning approach supports all learners; based on several evaluation points, Amplify Science scored highly. 100% of student-facing materials are available in Spanish to support multilingual learners.
- **Robust digital learning component:** The piloting teacher from Highline Virtual Elementary reported success with students engaging with materials including hands-on experiments from home; embedded simulations and interactive experiences support learners both in the classroom and those learning from home.

Implementation Plan:

2023 - Elementary Launch Site (Gregory Heights)

Fall K-5 Program Launch for Amplify Science - 1 Unit (Amplify support)

- Determine high leverage instructional strategies to support student engagement and build classroom culture

January-June 2024 - Elementary Launch Site (Gregory Heights)

- Support school teams with strategies and routines
- NGSS Leaders support school teams with instructional practices and routines to support science and student engagement
- Determine professional learning needs based on launch site teacher input

2023-2024 - Full Implementation Preparation

Cross-curricular alignment (ARC integration)

- Digital tool planning
- Alignment with HPS essential standards
- Alignment to Biliteracy Unit Frameworks (BUF) (DL)
- Vietnamese translations

Fall 2024 - All K-5 Teachers

- District-wide Program Launch (DID) - 2 Units (Amplify support. 1 full day in person)

2024-2025 - All K-5 Teachers

- K-5 Program Launch for Amplify Science - 2 Units
- Support school teams with strategies and routines
- NGSS Leaders support school teams with instructional practices and routines to support science and student engagement

2025-2031 All K-5 Teachers

- K-5 Program Support for Amplify Science - 3 Units
- Induction support for teachers new to the program
- Product enhancement support as needed
- Determine professional learning needs based on teacher input

Cost Estimate:

Total Costs 2023-2031 - **\$4,099,634** to **\$4,193,104**

2023-2024 Materials/ Services	2024-2025 Materials/ Services	2025-2026 Materials/ Services	2026-2027 through 2030-2031 Ongoing Annual Costs
<i>Purchase of one unit per classroom for one launch site (21 classrooms)</i>	<i>Purchase of two units per K-5 classroom, districtwide</i>	<i>Purchase of third unit per classroom per each K-5 classroom, districtwide</i>	<i>Teacher/student digital access, materials refill kits</i>
\$ 32,402	\$ 1,176,431	Range \$696,891 - \$707,686 depending on kit purchased	Range \$403,462 - \$419,997 depending on kit purchased
<ul style="list-style-type: none"> ● Teacher digital access ● Print teacher editions ● Student interactive digital access ● Student unit texts ● Print student workbooks (consumable) ● Materials supply kits (consumable) 	<ul style="list-style-type: none"> ● Teacher digital access ● Print teacher editions ● Student interactive digital access ● Student unit texts ● Print student workbooks (consumable) ● Materials supply kits (consumable) 	<ul style="list-style-type: none"> ● Teacher digital access ● Print teacher editions ● Student interactive digital access ● Student unit texts ● Print student workbooks (consumable) ● *Materials supply kit replenishment (consumable) 	<ul style="list-style-type: none"> ● Teacher digital access ● Student interactive digital access ● Print student workbooks (consumable) ● *Materials supply kit replenishment (consumable)
Professional Development <ul style="list-style-type: none"> ● Training services from Amplify Science, 2 half-day sessions 	Professional Development <ul style="list-style-type: none"> ● Training from Amplify Science, 1 full day 	N/A	N/A
\$ 5,000	\$ 171,600		
Total Annual Cost: \$37,402	Total Annual Cost: \$1,348,031	Total Annual Cost: \$696,891 - \$707,686 (range)	Total Annual Cost: \$403,462 - \$419,997 (range)

*Materials supply kit replenishment based on Amplify costs. Building replenishment kits at Highline’s Instructional Materials Center will reduce this cost.

Recommendation for K-5 Science Instructional Materials Adoption

Kathy Emerick

Miriam Madill

School Board Meeting | June 21, 2023



Our Promise

Every student in Highline Public Schools is known by **name, strength** and **need**, and graduates prepared for the **future they choose.**

K-5 Science Adoption Committee

School/ Location	Staff Member
Central Office	Jenny Haaland
Central Office	Jennifer Jacob
Central Office	Lisa Juvinall
Central Office	Roxana Ramos
Gregory Heights	Elise Dupre
Gregory Heights	Molina Meas
Gregory Heights	Matt Walsh
Hazel Valley	Terra Baer
Hazel Valley	Courtney Clark

School/ Location	Staff Member
Hazel Valley	Tamasha Emedi
Highline Virtual Elem.	Catherine Saephanh
Hilltop	Letys Ellefson Bracho
Hilltop	Carolyn Hylander
Hilltop	Tatiana Pantoja
Parkside	Lisa Grasdalen
McMicken Heights	Spencer Flannigan
McMicken Heights	Jennifer Walsh

K-5 Science Adoption Committee - continued

Family & Community Members
Fatima Ahmed
Sue Chantom
Michelle Crowe
Mahder Esayse
Dana Hendricks
Andrew Nortrup
Donny Payne
Christopher Urbanski
Noel Yearsley

K-5 Science Pilot Teachers

School	Staff Member
Des Moines	Brenda Martin
Des Moines	Lisa McMullen
Gregory Heights	Elise Dupre
Gregory Heights	Molina Meas
Highline Virtual Acad.	Catherine Saepanh*
Hilltop	Letys Ellefson Bracho*
Hilltop	Yazmin Gil*
Hazel Valley	Courtney Clark*

School	Staff Member
Madrona	Amelia Swinton*
Madrona	Leonor Lopez Munoz*
Madrona	Rosa Sanchez*
McMicken Heights	Spencer Flannigan [∇]
McMicken Heights	Jennifer Walsh
McMicken Heights	Katie Utesch
Midway	Mireya Roldan Guzman*
North Hill	Nancy Becker

With special thanks to those who provided perspectives
Dual Language*, Remote Learning*, and Special Education Co-Teaching[∇] programs

K-5 Science Pilot Teachers - continued

School	Staff Member
North Hill	Jamie Clawson
Parkside	Lisa Grasdalen
Parkside	Jeanette Yee
White Center Heights	Benjamin Estes*

With special thanks to those who provided perspectives
Dual Language*, Remote Learning*, and Special Education Co-Teaching[∇] programs

Selection Process Overview

Research Review & Committee Calibration

April - June, 2022

- Reviewed research-based best practices
- Co-created Request for Proposals (RFP) with committee-developed criteria
- Sent RFP for materials

Evaluate & Narrow Materials

January 2023 - February 2023

- Reviewed materials that met RFP requirements with the K-5 Science Selection Criteria
- Analyzed initial review results
- Built consensus to narrow the top finalists

Pilot Materials

February - May 2023

- Prepared a pilot with finalists (Amplify Science and Discovery Education Techbook) and began trainings
- Completed pilots and gathered feedback from teachers and students in the pilots

Selection Process Overview

Community Input Meetings & Data Analysis

April 17-21, 2023

- Collected feedback data from both in-person and virtual community feedback events

Recommendation

June 1, 2023

- Reviewed data from teacher experiences, student experiences, and community input
- The Science K-5 committee voted to recommend Amplify Science for adoption



K-5 Science Curriculum Recommendation
Amplify Science

Publisher: The Lawrence Hall of Science



AmplifyScience

Key Characteristics

Engaging student learning experiences

Hands-on, literacy rich, interactive tools, encourages students to think, read, and write like scientists

Culturally responsive instructional practices

Student-centered inquiry learning approach, supports for all learners, 100% of student materials available in Spanish for DL classrooms and language learners



Key Characteristics

Robust digital learning component

Interactive student experience, embedded simulations, supports remote learning

Support for standards-based instruction and assessment

Phenomena-based, fully NGSS aligned, “3-D” assessments incorporate Science & Engineering Practices and Crosscutting Concepts



Strengths Mentioned in Pilot Feedback

Amplify Science

Themes from **student feedback**:

What was most helpful in the Amplify Science unit was...

- Interesting phenomena and questions
- Experiments, videos, activities, readings, simulations were engaging
- “I got to learn more”
- “I love all the projects in this unit”
- “It was fun (to smash the candy)”



Strengths Mentioned in Pilot Feedback

Amplify Science

Themes from **pilot teacher feedback**:

- Student engagement was high
- Videos, materials, and digital access for Spanish - easy to use, high quality
- Strong standards-based lessons/assessments
- They were excited to build their own models
- “It got good student discourse going”

Example **family feedback**:

- “I really loved how the students became scientists and engineers to solve a problem or question.”

K-5 Science Implementation Plan

Fall 2023 Elementary Launch Site (Gregory Heights)

- K-5 Program Launch for Amplify Science - 1 Unit (Amplify support)
- Determine high leverage instructional strategies to support student engagement and build classroom culture

January-June 2024 Elementary Launch Site (Gregory Heights)

- Support school teams with strategies and routines
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- Determine professional learning needs based on launch site teacher input

2023-2024 Full Implementation Preparation

- Cross-curricular alignment (ARC integration)
- Digital tool planning
- Alignment with HPS essential standards
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- Vietnamese translations

K-5 Science Implementation Plan

Fall 2024 All K-5 Teachers

- District-wide Program Launch (DID) - 2 Units (Amplify support. 1 full day in person)

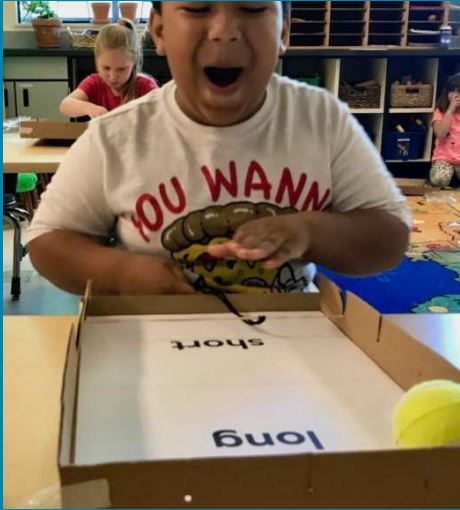
2024-2025 All K-5 Teachers

- K-5 Program Launch for Amplify Science - 2 Units
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- NGSS Leaders support school teams with instructional practices and routines to support science and student engagement

2025-2031 All K-5 Teachers

- K-5 Program Support for Amplify Science - 3 Units
- Induction support for teachers new to the program
- Product enhancement support as needed
- Determine professional learning needs based on teacher input

Budget for 2023-2024



Materials / Services	2023-2024 initial costs
<p>Amplify Science</p> <ul style="list-style-type: none">● Teacher/student digital access● Print teacher editions● Print student workbooks - consumable● Materials supply kits	<p>\$32,402</p>
<p>Professional Development</p> <ul style="list-style-type: none">● Training services from Amplify Science, 2 half-day sessions in person or 2 half-day remote sessions	<p>\$ 5,000</p>

Budget for 2024-2030

Materials / Services	2024-2025 Materials/ Services	2025-2026 Materials/ Services	2026-2027 through 2030-2031 Ongoing Annual Costs
Amplify Science <ul style="list-style-type: none"> ● Teacher/student digital access ● Print teacher editions ● Print student workbooks - consumable ● Materials supply kits 	Purchase of two units per classroom \$ 1,176, 431	Purchase of third unit per classroom Range \$696,891 - \$707,686	<i>digital access materials refill kits</i> Range \$403,462 - \$419,997
Professional Development (DID) from Amplify Science <ul style="list-style-type: none"> ● Training services (Fall 2024) 1 full day 	\$ 171,600	N/A	N/A