



# Highline Public Schools Board Action Report

Supports the Strategic Plan

DATE: 5-7-2018

FROM: Dr. Susan Enfield, Superintendent

For Introduction:5-16-2018

LEAD STAFF:Catherine Thompson, Chief Curriculum & Instruction Officer  
For Action:06-06-2018

## I. TITLE High School Physics Instructional Materials Adoption

**II. WHY BOARD ACTION IS NECESSARY** Per Board Policy 2020, the School Board is responsible for the adoption of all core materials used in the District as recommended by the Instructional Materials Committee.

## III. BACKGROUND INFORMATION

The Highline Public Schools Secondary Science Team led a course of study review to determine whether or not the instructional materials currently in use aligned to Next Generation Science Standards. The Washington Comprehensive Assessment of Science is based on these standards. The findings from the course of study review showed that our current materials were outdated and were not aligned to current state standards. The last instructional materials were adopted in 1995 for physics. This finding led to an eight month long materials adoption process following Superintendent Procedure 2020P, culminating in a recommendation to adopt Active Physics (for more details, please review the attached memo).

## IV. RECOMMENDED MOTION

I move that the Highline School Board approve the adoption of Active Physics as the core materials for physics.

## V. FISCAL IMPACT/REVENUE SOURCE

Fiscal impact to this action will be (amount and source including fund Example - \$522,000 from general fund Title 1 revenue).

Instructional Materials \$168,572 Lab Equipment \$30,000

The revenue source for this motion is from Basic Education Allocation funds.

Expenditure:  One-time  Annual

## VI. APPLICABLE POLICY(S)

This action is in compliance with the following:

Board Policy No. 2020

## VII. ALTERNATIVES

If the materials are not adopted, teachers will use the existing adopted materials and will need to locate multiple supplementary materials from open resources to fill gaps so that current standards are appropriately addressed. This places a burden on teachers and does not meet the district's obligation to provide core instructional materials.

## VIII. COMMUNITY ENGAGEMENT

Community Engagement Required:  Yes  No

Family members and university partners served on the adoption committees and a centrally-located open house was held as a means of seeking input from all stakeholders.

**IX. POLICY MONITORING PLAN**

This  new or  revised policy will be monitored by the School Board:

Quarterly  Semi-Annually  Annually  Not Applicable

The metrics that will be used to monitor this policy include: \_\_\_\_\_

**X. ATTACHMENTS**

Board memo outlining the adoption process (Note: The memo includes multiple links for in depth review of the process)

PowerPoint for presentation of the instructional materials recommendation at May 16, 2018 Board meeting

## M E M O R A N D U M

**To:** HSD School Board of Directors

**From:** Dana Dyer and Nicole Flynn, Secondary Science Specialists

**Date:** 5/11/2018

**Re:** Chemistry and Physics Instructional Materials Recommendation

**Introduction:** As per Board Policy 2020 and Superintendent Procedure 2020P, a team was created to review the current adopted instructional materials for both the Chemistry and Physics courses, where it was determined that the materials did not align to the Next Generation Science Standards (NGSS). This document details the process followed by the Highline Science Adoption Committee, with monthly guidance from the Instructional Materials Committee (IMC), in its selection of *Living by Chemistry* and *Active Physics* as the new core instructional materials.

Process	Date	Description and Decisions	Documents
Course Materials Review	9.14.2017-10.16.2017	<ul style="list-style-type: none"> <li>Science teachers completed a survey to provide input about the current materials.</li> <li>Three science teachers and a content specialist performed a review of the current adopted instructional materials for Chemistry and Physics, and it was determined that neither one aligns with the Next Generation Science Standards (NGSS).</li> </ul>	<a href="#">Science Materials Survey</a>  <a href="#">Science Materials Review Report</a>
Adoption Information Night for Teachers and Families	10.03.2017	<ul style="list-style-type: none"> <li>Community members and all science teachers were invited to attend to learn about the adoption process and timeline.</li> </ul>	Flyers in: <a href="#">English</a> <a href="#">Spanish</a> <a href="#">Vietnamese</a>
Committee Application Process	10.03.2017 - 10.19.2017	<ul style="list-style-type: none"> <li><i>Highline families:</i> One participant from each of the North and South service areas was selected, but both declined. One of the higher education partners on the committee is also a Highline parent.</li> <li><i>Highline teachers:</i> All current high school science teachers were invited to join. The ten teachers who served on the committee represented a range of schools.</li> <li><i>Higher education partners:</i> Two partners were recruited and joined the committee – a current Highline College faculty member in Physics and a former University of Washington science education researcher.</li> </ul>	<a href="#">Family Application</a>  <a href="#">Teacher Application</a>  <a href="#">Committee Application Process Notes</a>

Process	Date	Description and Decisions	Documents
<b>Adoption Committee Meeting 1: Criteria Development</b>	10.23.2017	<ul style="list-style-type: none"> <li>Developed common understanding of research-based practices that support NGSS.</li> <li>Generated a list of criteria for the first screening of materials that were then ranked by importance.</li> </ul>	<a href="#">Criteria rating survey</a>  <a href="#">Criteria rating review</a>
Publisher and Open Educational Resource Research	10.24.2017 - 11.28.2017	<ul style="list-style-type: none"> <li>Specialists used review of criteria ratings to develop letter to request samples from publishers.</li> <li>Used lists of publishers from other states' departments of education to develop a list of publishers to request samples (letters sent on 11.02.2017).</li> <li>Met with WA Office of Superintendent of Public Instruction representative to discuss Open Educational Resources (OERs) (11.17.2017).</li> </ul>	<a href="#">Letter template</a>  <a href="#">Publisher and OER research</a>
<b>Adoption Committee Meeting 2: First Screening</b>	11.29.2017	<ul style="list-style-type: none"> <li>Decided to rate all criteria equally, but to add an additional criterion as a "Holistic Rating."</li> <li>Two teams, each focused on a topic/unit, screened instructional materials and OERs using previously established criteria.</li> <li>Teams' criterion screening scores were averaged for each set of materials, then materials were ranked by the sum of their criteria scores.</li> </ul>	<a href="#">Criteria Notes</a>  <i>Data Overviews:</i> <a href="#">Chemistry &amp; Physics</a>  <a href="#">Data Analysis Notes</a>
<b>Adoption Committee Meeting 3 &amp; 4: Second Screening</b>	12.12.2017 - 01.05.2018	<ul style="list-style-type: none"> <li>Decided to use EQulP rubric, Category I, Criteria A-C as a "gate".</li> <li>Calibrated on definitions of passing each of these criteria.</li> <li>Teams completed reviews of top materials from 1st screening using these criteria (2 screenings for each set of instructional materials), with each team focused on a particular topic/unit.</li> </ul>	<a href="#">Agreements about criteria A-C</a>
<b>Adoption Committee Meeting 5: Decision for Pilots</b>	01.08.2018	<ul style="list-style-type: none"> <li>Decided on two sets of materials to pilot for each course. <ul style="list-style-type: none"> <li>Physics: <i>Active Physics &amp; STEMscopes</i></li> <li>Chemistry: <i>Chemistry in the Community &amp; Living by Chemistry</i></li> </ul> </li> <li>Provided input regarding data to collect during the pilots.</li> <li>Completed bias evaluations.</li> </ul>	<i>Review summaries:</i> <a href="#">Chemistry &amp; Physics</a>  Data input: Team <a href="#">1</a> & <a href="#">2</a>

Process	Date	Description and Decisions	Documents
Materials Pilot Process	01.18.2018 - 04.06.2018	<ul style="list-style-type: none"> <li>Professional development for teachers on pilot materials where they provided input on unit planning.</li> <li>Piloted units during Quarter 3. Observations done by specialists and data collected.</li> </ul>	<a href="#">Unit planning survey</a>
Instructional Materials Adoption Showcase for Community Members and Teachers	03.20.2018	<ul style="list-style-type: none"> <li>Invitations distributed to users of the Highline app and via email to families of all students piloting materials.</li> <li>Attendees explored materials and asked questions to content specialists, then filled out a form with feedback questions.</li> </ul>	<a href="#">Flyer</a>  <a href="#">Feedback questions</a>
<b>Adoption Committee Meeting 6:</b> Selection for Recommendation	04.19.2018	<ul style="list-style-type: none"> <li>Committee members used the pilot data to complete a final review of materials.</li> <li>Physics: Recommended <i>Active Physics</i>.</li> <li>Chemistry: Recommended <i>Living by Chemistry</i>.</li> </ul> <p><b>Note:</b> Some teachers were not in favor of adopting at this time since instructional materials for Chemistry are lagging behind the implementation of NGSS. It was difficult to find instructional materials that were fully aligned. The final vote was to recommend <i>Living by Chemistry</i> as a resource to support implementation of the new course. The intent is to develop frameworks to ensure that students will meet the different dimensions required of the performance expectations in NGSS.</p>	<a href="#">Data sets</a> used for review  Materials Review <a href="#">Survey &amp; Results</a>