PMHS Instructional Materials Adoption Memo and Public Display of Materials

Public Display of Instructional Materials
Monday, September 20, 2021

- **Stile Science Website**
- **Marketing/Informational Deck - Provides an overview of everything Stile. PDF version is attached.**
- **Lab Handbook - Has all our labs with a materials list for each.**
- **We are currently at 91% alignment for HS NGSS standards. Our crosswalk is in progress. However, we plan to be in 100% alignment by January 2022.**
- **Our customizable lessons provide the opportunity for teachers to edit lessons to better support ELLs.**
- **Open response questions allow students to respond in various ways - including audio to practice speaking.**
- **Multiple exposures to vocabulary in lessons glossary and can be practiced in our Squiz mobile app.**
- **A narration tool is available for text to support listening skills. Teachers can also add their own narrations throughout any lesson.**
- **The google translate extension is compatible with our pages.**
- **Teachers can create sentence frames for students to provide support in written response questions.**

TO: Amy Wooliever, Superintendent

FROM: Phil Hophan, Principal
Colin Geraci, MS Science Teacher
Lizzy Pyle, HS Science Teacher

RE: Middle School Curriculum Materials
STEMscopes California Edition (Accelerate Learning) 6-8 (prefered subject specific)

High School Curriculum Materials
Stile Science (Intergrated Science, Biology, Environmental Science, Chemistry, Physics)

DATE: September, 2021

The attached materials lists and purchase order requests represent the findings of our PMHS Science Department with the assistance of the Principal, for the pilot and adoption of new science instructional materials that are aligned to the State of California's Next Generation Science Standards (NGSS) for middle school and high school science courses.

These pilot findings include key components identified at the outset of our investigation, including, but not limited to: NGSS aligned, hands on/lab infused curriculum, technology driven curriculum, English Language learner aligned curriculum and supports, open ended questioning and inquiry based strategies that promote a culture of discovery learning, special education tools such a narration are present, and the ability to translate

digital materials in real time for newcomer and non-English speaking parent access. The following is an account of those findings and support for and the proposal to adopt these curriculum materials for immediate use in School Year 2021-2022.

High School Curriculum Materials
Stile Science (Intergrated Science, Biology, Environmental Science, Chemistry, Physics)

In this adoption pilot, our team was striving for instructional tools that would bolster science literacy for all students. Stile is a combination of science textbook, workbook, assessments, practicals, videos and lab simulations that is on-line, intended to be used alongside traditional teaching tools such as textbooks, manipulatives, workbooks, primary sources, and live labs. NGSS alignment was considered an non-negootiable, and as such is documented in the curriculum map attached to this memo.

The Stile platform provides lesson plans to accompany all of the online textbook chapters, lab instructions for all labs, reflection and workbook pages for all on-line resources, and assessments to check for understanding and to assist with instructional planning.

The platform provides Professional Development “university” tools to assist teachers with their instructional planning, an English Language Learner teacher providing Spanish language support, or a Resource Teacher who would like to create a differentiated lesson.

Pilots run in California beginning in 2020 have all had positive findings, like our school. Our High School science instructor has experienced this platform as a student, as it is currently used at Half Moon Bay High School, and has been piloting the platform in classes at PHS since the beginning of the school year.

Perhaps the most important selection criterion for the adoption of a standards based curriculum material is that of the student response to the platform as it was piloted these past few weeks. I asked our Science Instructor. Ms. Elizabeth Pyle, to provide me with a description of how students have received this new platform. In addition, I asked Ms. Pyle to describe how the experience of delivering and coaching these curriculum materials has been for her as a professional. Finally, I asked Ms. Pyle to describe the integration of this digital platform with other instructional materials already present in the classrooms.

I have run several Stile lessons with Integrated Science, Biology, and Physics. After 2 lessons with each group, I asked students to provide verbal feedback. Some of the most common responses included:

-Enjoying being able to draw and interact with visuals. Some highlights have been drawing organelle superheroes, drag and drop puzzles on cellular organization, and physics velocity simulations.

-Liking the variety of questions (written, drawing, diagrams, mind maps, verbal feedback, video, polls, etc.)

-Liking the fact that all questions and reading have dictation available, as well as have corresponding diagrams and visuals. Several of my students who struggle with reading and writing have been able to take in information and express their learning in multiple ways.

-Enjoying the career profiles that relate what they are learning to future careers and the real world.

To deliver this content, I have adopted 3 main methods:
1) going through questions together as a class with them individually responding on their laptops.

2) having them work independently or in pairs on lessons in class.
3) Assigning as homework for them to complete outside of class.
I have seen success with each of these methods. Typically, I organize the premade (yet customizable) lessons so that we start all together as a class for the first few. Usually, the lessons will start with a class poll, a video to discuss, or a group brainstorming session. Once we answer and discuss the first few questions together, I will run through the rest of the lesson with them and allow them to self pace through it. I can see from my laptop who is on what question during the lesson, as well as their responses. This allows me to check in with students who seem to be struggling, even if they are not asking for the assistance themselves.

I have noticed that the lessons pair very well with the content we are covering in class. Since the lessons are customizable, I can add additional question to emphasize certain concepts, reword questions, or omit questions. I allow students to use their notes during these lessons, and they are clearly applying and building upon the concepts taught in class. I believe that Stile is the perfect tool to have students apply their knowledge in a fun and low-stakes environment. It also provides me with valuable data, similar to what I would receive from an exam, without having to stress the students out over their grades. I have been grading students on participation with these lessons so far, which encourages them to work hard, but reduces fear of getting things wrong. I have been seeing participation from students of all skill levels. The wide range of questions provides opportunities and challenges to all kinds of students.

The integration into the classroom has been relatively seamless. After taking notes on a topic, students will use their school-provided chromebooks and gol through the Stile lessons that build on their knowledge. I can lengthen or shorten lessons to fit the needs of my classroom that day. Typically, I have been running 2 30 minute lessons a week in each of the classes. I can project the lesson onto the TV monitor to go over the questions and expectations with them, and then project a timer to let students know how much time they have left to work on it during class. Students are able to see poll results and interact with their classmates' responses in several different ways. I believe that having Stile at my disposal strengthens my position as an educator to teach my students using an equitable and multi-modal approach.

With that, I would like to propose the adoption of the Stile digital curriculum platform for use in our Pescadero High School Science classrooms.

Fiscal Implications

The following costs out the expenditure required to adopt the Stile Platform, integrated with a Single Sign On-Google capability that aligns well with our 1:1 adoption of Chromebooks and over what period of time. Please note that the purchase of digital curriculum materials is advantageous over the adoption of only paper textbooks as digital resources are a living resource, and textbooks are stagnant.

54 PHS licenses @ $20 per license = $1080 annually

Please find attached to this memo, the annual contract that captures this licensing agreement.

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TBD