TO: Amy Wooliever, Superintendent

FROM: Phil Hophan, Principal
Colin Geraci, MS Science Teacher

RE: Middle School Curriculum Materials
STEMscopes California Edition (Accelerate Learning) 6-8 (prefered subject specific)
https://www.stemscopes.com/

DATE: October 2021

The attached materials lists and purchase order requests represent the findings of our PMS Science Department with the assistance of the Principal, for the adoption of new science instructional materials that are aligned to the State of California's Next Generation Science Standards (NGSS) for middle school science. NGSS science establishes a shift in science education toward a more hands on, observation based, problemsolving oriented discovery science that maintains high levels of content knowledge but provides more student centered pathways to that content.

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 including newcomer and non-English speaking student access, open ended questioning and inquiry based strategies that promote a culture of discovery learning, and that special education tools are present. 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.

When Mr. Geraci introduced us to a curriculum he was piloting during COVID, with the intention of bringing more and better science to our students at home Colin was excited for the robust digital components of this state adopted curriculum. Further, and in anticipation of returning to in-person school, he reviewed the accompanying paper and pencil workbooks that would be used in the classroom and with labs were excellent and would support student learning, in addition to thinking the digital curriculum were some of the best instructional materials of that sort that he had ever seen. I immediately began receiving admin messaging from StemScopes and was excited to see a mature platform that was providing regular professional development articles tying the curriculum to a number of important middle school education issues such as STEAM education, importance of number literacy when math meets science, and of course lab and field studies connections. Finally, upon further investigation, the platform embeds the NGSS shift and prepares students for the standardized CA Science Test (CAST), part of our annual testing regiment.

Our goal is to adopt a new middle school curriculum that is a hybrid one, where there exists a strong digital component for use by our students who are 1:1 with their technology, and a year to year updated paper and pencil component as well. The downside of an annual outlay for workbook materials is offset by the cost benefit of having your primary curriculum be digital and your supplemental components be paper and pencil and updated annually.

The digital component integrates with our Google Classroom, provides synchronous, asynchronous and hybrid platforms for all scenarios, and a curriculum mapping function that allows teachers to provide differentiated access to the platform for any learner. The platform embeds STEM education throughout the digital resources, where technology, engineering and math are introduced as integral components of a holistic and integrated

science curriculum that is critical thinking and problem solving based. The platform provides parent guides and information for how parents can monitor and be involved with their students' learning, and these come in both English and Spanish, and including at-home science activities for a family to enjoy, perhaps as part of a science night extension. Finally, for the digital side, professional development for teachers is included and asks teachers to complete a series of courses certifying the teacher in the platform's NGSS practices.

The digital and workbook materials support English language learners with mainstreamed materials and with Spanish language instructional materials for our newcomers taking science in a sheltered environment. The nature of the shift to NGSS and to STEM science is heavily emphasized in this platform, allowing for a more accessible curriculum for our English Language Learners, as well as for our Special Education students. The balance between the digital platform and the annually updated workbooks lends itself to the right balance of support for all students and all types of learners.

Stemscopes features Social Emotional Learning components as well. Having these tools for our teacher to access for a middle school classroom is essential and will be well utilized. By extension, the focus on equity and equitable instructional practices is also addressed by this platform.

Ultimately, this platform is a great fit for our school, our current middle school science teacher Mr. Geraci, and articulates well with our high school science curriculum, and all in the service of NGSS and STEM education. It's state adoption gives us the comfort of knowing this is a peer reviewed and accepted set of materials, given the rigor with which those state level adoption decisions are made. Finally, given the development of lab and field studies on our PMHS campus, new science electives at both the high school and middle school level, and the continued interest of our students in better understanding the natural world around them, this curriculum will be a great fit for our school.

Fiscal Implications

$3784 for all Grade 6-8 Resources (including digital textbook access, print materials, and teacher planning materials for 65 students and 1 teacher)

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