Update: WMS Program Improvement Restructuring Plan

Wood Middle School
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1/25/2014


WOOD MIDDLE SCHOOL
ENGAGE
PREPARE
INSPIRE
PARENT INFORMATION NIGHT
WED / JANUARY 15TH / 6:30 - 8pm
TOUR DATES
THUR / JANUARY 23 / 9-10am
TUES / JANUARY 28 / 9-10am
visit our website wms.alamedausd.ca.schoolloop.com

Where we are

- Wood Middle School is restructuring to become the first **STEAM** middle school in Alameda. (**S**cience, **T**echnology, **E**ngineering, **A**rt, and **M**ath Integration)

- Restructuring is an opportunity to engage, prepare, and inspire our leaders of the future.
- Our Data-
  - 66% are considered socio-economically disadvantaged
  - 30% are English language learners
  - 20% are students with special needs
  - 26 different languages spoken

Why STEAM?

- Wood currently serves over 400 bright, gifted, and capable students. Many of whom have yet to unleash their gifts and full potential.

- These are our future leaders. However, we must engage, prepare, and inspire them. According to the Department of Commerce:
  - STEM occupations are projected to grow by 17% from 2008 to 2018, compared to 9.8% for non-STEM occupations.
  - Although women fill close to half of all jobs in the U.S. economy, they hold less than 25% of STEM jobs.

A Growing Need

- The issue goes beyond personal economics.
- Nationally, we simply cannot compete in the new economy unless we do something now about creativity and innovation.

- According to a 2010 Level Playing Field Institute study:
  - In 2009, only 1,551 African-American students were enrolled in a STEM discipline across all UC campuses. This represents 2% of all STEM undergraduates.
- A 2011 report from the Georgetown University Center on Education and the Workforce found:
  - 65% of those with Bachelors' degrees in STEM fields earn more than Master's degrees in non-STEM occupations.
  - 47% of Bachelor's degrees in STEM occupations earn more than PhDs in non-STEM occupations.

A Growing Need

- STEM jobs will continue to expand as the U.S. economy recovers from the Great Recession.
- According to the U.S. Bureau of Labor Statistics
- At least 8.6 million U.S. STEM jobs will exist in 2018.
- California will need at least 1.1 million skilled STEM workers by 2018, more than any other state.
- It is projected that we will not have enough highly skilled workers to fill these jobs.
- The traditional school model prepares students for a workplace that no longer exists.
- Employers need great minds-- not factory workers.

A Robust Education

First Period:	Band
Second Period:	Math
Third Period:	English
Fourth Period:	Engineering
Lunch	
Fifth Period:	Advisory
Sixth Period	Science
Seventh Period:	History

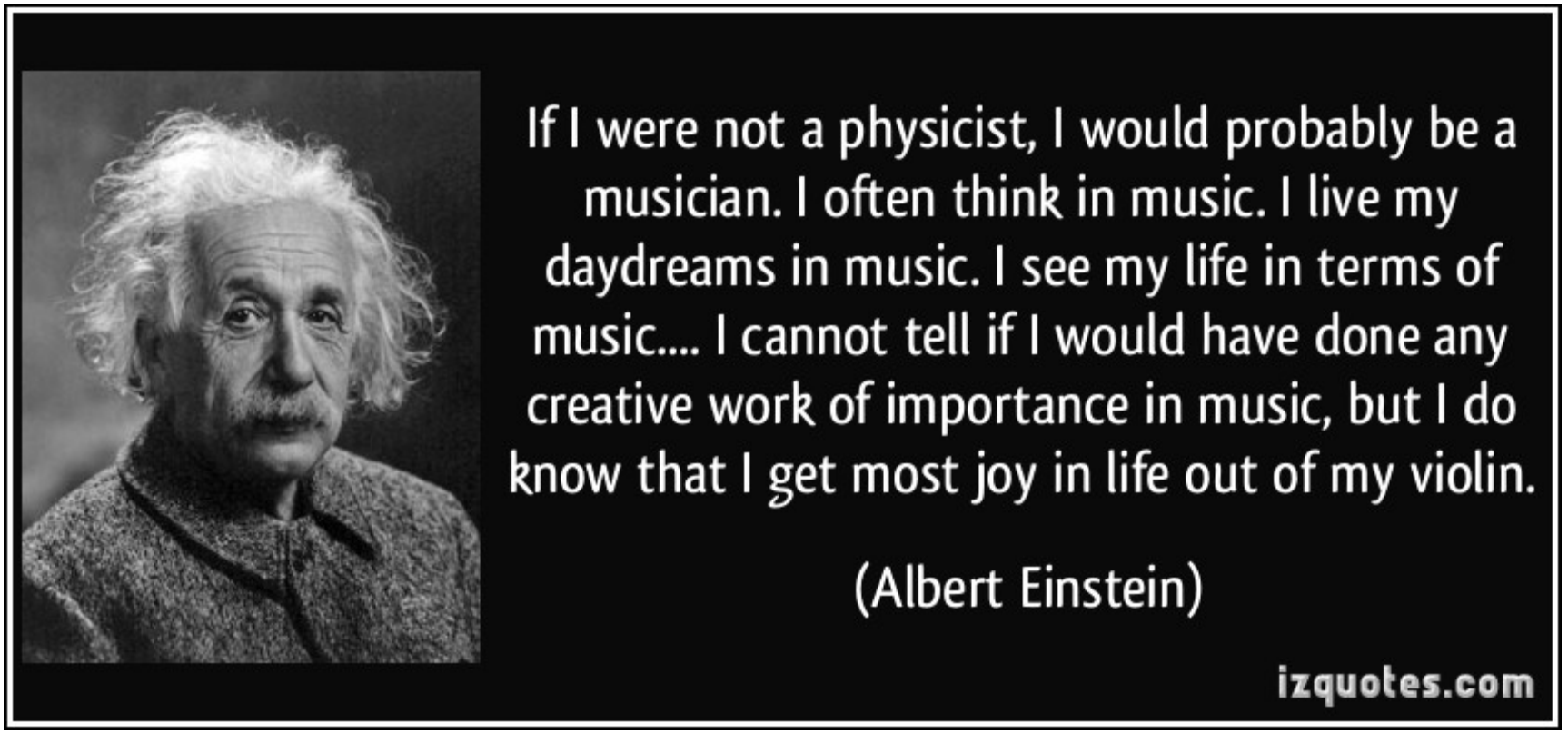
Tangible Outcomes of STEAM

- **Wood Students will enter high school…**
  - Able to apply artistic habits of mind (approach a problem from multiple perspectives) to academic subjects
  - With the ability to integrate skills from different academic domains to solve real-world problems
  - With knowledge of multiple technologies to complete projects and solve problems
  - Able to productively collaborate to solve problems and complete tasks
  - With three years of experience in hands-on Engineering

The Possibilities of a STEAM Mindset

Astronaut Mae Jemison studied with the Alvin Ailey American Dance Company. When entering college she struggled with the decision to become a doctor or a dancer.

The Possibilities of a STEAM Mindset



Space Needs

- **STEM/Engineering Design Room**
  - Dedicated to Engineering Elective
    - Engineering lab space
    - All students will use this space to explore, design, construct, and create engineering solutions
  - Space for students to complete STEM projects (once per trimester)

- **Fusion Classroom**
  - Dedicated to Fusion Literacy Intervention, currently held in a large office space adjacent to the multi-purpose room.
  - Struggling students feel marginalized by non-standard classroom space
  - Moving Fusion to the main building will provide students in intervention additional space and proximity to their other teachers

Space Needs

- **Multi-Media Lab**
  - A space for students to do research, create presentations, complete schoolwork that requires access to technology, and work collaboratively
  - The existing computer lab is insufficient to the needs of the school
  - Many students do not have computer or internet access at home
  - This space is connected to the existing library, will not require additional adult supervision at lunch

Space Needs

- **Parent room**
  - Space for PTA and SSC to meet and organize
    - Currently these groups have to use the already limited student space, resulting in fewer spaces for students to work outside of classrooms
    - Storage of materials from parent groups
  - Long-term plans include the increased use of this space for parent outreach, workshops, and support, as well as community involvement.

- **PD/Conference room**
  - Room equipped for ongoing professional development for staff
  - ACOE training will be offered onsite
  - Professional learning teams need space to design cross- discipline integrated thematic units that will allow all students access to the curriculum

Budget

Goal	Item	Total Cost	Categorical	PTA	Grant	District	Timeline
Integrated Learning Training	Train 25 Teachers	$22,500			$13,500	$9,450	Over 2 Years
	Teacher Stipends ($500/class)	$37,500	$37,500				Over 2 Years
	Integrated Learning Summer Institute (10 Teachers)	$2,990	$2,990		$900		Summer 2014
	Staff Attend Future Summer Institute (15 Teachers)	$8,970				$8,970	Summer 2015 & 2016
	.02 Coaching in Integrated Learning	$15,000				$15,000	Ongoing
Professional Learning Community	Staff Retreat	$5,250	$5,250				Summer 2014
	Summer Planning Time	$2,400	$2,400				Summer 2014
	Release Planning Time for Teaching Teams	$5,400	$5,400				2014-2015
Engineering & Technology Courses	Teacher Training - Project Lead the Way	$15,000				$15,000	Summer 2014, 2015, 2016
	Autodesk Lab	$28,600				$28,600	One time- Summer 2014
	Equip Technology & Engineering Lab	$20,000				$20,000	Summer 2014
	Consumable Engineering Materials	$1,500				$1,500	Ongoing
	Convert Classroom to tinkering/Maker Space	$3,000			$3,000		Summer 2014
	Create Multi-Media Lab	$17,000				$17,000	One time- Summer 2014

Budget (cont'd)

Goal	Item	Total Cost	Categorical	PTA	Grant	District	Timeline
Orientation/Advisory	Train 2 Staff Members in WEB program	$5,000	$5,000				Spring 2014
	6th Grade Orientation	$250		$250			Fall 2014
	Organize and reproduce Advisory Curriculum	$860	$860				Spring 2014
Increase Student Enrollment	Print & Mail Post Cards	$750	$750				Winter 2015
	Print & Post Banners	$500		$500			Spring 2014
	Advertisement in local Paper	$250	$250				Winter 2015
Field Trips	All students participate in minimum of 3 Field Trips	$20,000	$5,000	$5,000	$5,000	$5,000	2014-2015
TOTALS		$212,720	65400	5750	$22,400	$120,520	

Budget (cont'd)

- Current FTE 21.17
  - District supports 2.8 FTE
  - Does not include 4 Special Education FTE
- Science classes average 32:1
- All classes average 26:1
- Support classes average 25:1

  Fusion, Math Intervention, ELD

Budget (Cont'd)

- Goal: 25:1 Ratio for all classes
- Need: 22 FTE for 25:1 class ratio
- Request District to continue 2.8 FTE and need an additional .83 FTE which would allow us to have 25:1 in all classes based on projected enrollment

Young Minds Bring Fresh Solutions