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## **Flip Chart Transcription from December 9<sup>th</sup> STEMCAP Forum Curriculum**

### **Chart 1**

Draft Goal – Curriculum working group

Fund, train (professional development) and integrate project-based (relevant, inspiring, STEM career relevant, industry-driven) activities into academic curriculum (math and science standards-based curriculum) in all stages of formal and informal education

### **Chart 2**

Academic curriculum

Industry/Workforce Relevancy

Goal:

- Meet real people who do it
- Content – what modality (visual, auditory, kinesthetic)
- Engineering activities standards K-12
- Processes
  - Project-based learning (experience, service)
  - Career tech – why
  - Relevancy (revisit continuous improvement)
  - Novice – complex – exp??? It

### **Chart 3**

- WHO
  - Include home schooling students
  - Include parents
  - Every student, every school
  - Industry-driven
  - Real Activities (service learning)
  - Cultural relevancy
  - Connections
  - Relevancy
  - Geographic sensitivity: rural, urban
- WHEN
  - Current focus on core curriculum, standards-based
  - Formal and informal
  - During and after school
- HOW
  - Fund: facilities, materials
  - Literacy
  - Connect 3-Rs
  - School pair and exchange
  - Make science methods (inquiry) more rigorous

## Chart 4

### Identifying best practices, principles

- Chancellors and administrators value at the level
- All levels have to value this
- Innovation needs to be stressed
- No “same old, same old”
- A \$15M new idea
- Mentorships (younger)
- Internships (later)

## Chart 5

### Identifying best practices, principles (cont'd)

- Need a gap analysis
- Investigation of the gaps throughout the continuum
- External principles and practices need to be examined
- Reach new populations
- Number of kids served
- Industry involvement
- Intersegmental *practiced*

## Chart 6

### Identifying best practices, principles (cont'd)

- Eliminate turf battles
- Industry must step forward in larger way
- Open doors to partners (business, parents, community, higher ed, faculty and administration)
- Fund innovations in schools and programs open to increasing relevancy

## Chart 7

### Identifying best practices, principles (cont'd)

- Measured
- Evaluated
- Include informal and formal
- Portable
- Mentorships (connect with real people that do it)
- Replicable
- Applicable to diverse audiences (specified)
- Inspiring\*\*\*
- Access or delivery mechanism

- Success-based
- Sustained
- Relevant\*\*\*
- Model ways to integrate informal

## Chart 8

### How (Question 5)

- Understanding incentive – “why are we doing it?”
- Invest in regions
- Voluntary, self-defined
- Local
- Community-based
- All stakeholders that can influence success
  - Students
  - Parents
  - Community
  - Business
  - Nonprofits
  - Educators/faculty/administrators
  - Media
  - Education segments
    - K-12
    - California Community Colleges
    - California State University
    - University of California
    - Private sector education
- Leadership-driven
- Organization/collaboration sustainable
- Defined focus area
- Student outcome measurable (defined by collaboration)

## Chart 9

### Who is missing from our STEMCAP effort?

- California Math Council
- California Science Teachers Association (note: CSTA is on Steering Committee)
- Labor and Teacher unions
- Business around state (i.e. Central Valley, oil)
- Technical workforce suppliers
- More business (trade) associations
- Informal science and technology
- Chambers/Roundtable

## Chart 10

### Dissemination of info

- CEOs\*\*\*
- Web and libraries
- Gov't at all levels
- Media
- BTSA and teacher ed decision makers
- Plan
  - Our group is ready to do it now!
  - Executable
  - Affordable
  - Measurable
  - Deliverable/sealable
  - Coordinated
  - Sustainable

### Extra Chart

			Formal			
Elem K-5	M.S. 6-8	H.S. 9-12	CC 13-14/-16BS	Prof Cert/Post Grad	Work	
1	2	3	4	5	6	
			Informal			