STEM Task Force
Government Sector

1. Big Idea – Identify one "big idea" that could dramatically enhance Kentucky's performance in the STEM disciplines.
    - Communicating the urgent need and excitement of scientific careers: STEM and energy.
    - Higher pay for teachers in STEM disciplines.
    - Thematic integrated activities that could be used in Math, Science, Technology and Engineering classes that could bring rigor, relevance and relationships to student learning.
    - Clearly defined message on importance of STEM to every aspect of life, community, and economy in the 21st century and importance of keeping abreast of ever-changing technology.
    - Connect with some organization (private, profit) to assess new learning strategies. Big idea – execute small ideas already on the table.

2. Collaboration – What partnerships or collaborations could leverage Kentucky's investment in the STEM disciplines?
    - Common goal with money attached will cause all types of partnerships to emerge that can't be anticipated in advance.
    - Partnerships might include:
        i. Task Force members.
        ii. Business providing venues for students to learn about STEM employment opportunities.
        iii. Private industry and government for student employment, internships, etc. focused on broad STEM objectives.
        iv. STEM teachers, university faculty, business/industry, students, parents, and others to collaborate to develop thematic units for student learning in the STEM disciplines.
        v. KVHS, KET and possible funding sources such as the National Science Foundation or the Knight Foundation.

3. Action – Identify three actions that your sector might undertake that could improve Kentucky's capacity to create knowledge economy jobs within the Commonwealth.

    - Frame and communicate STEM to all students, stakeholders.
    - Refine alternative certification.
    - Scholarships and other financial incentives to attract "best and brightest" in STEM degrees in higher education.
    - Math and Science teachers implement real world problems in engineering, technology, energy, etc.

- Increase the distance learning capacity to assist learning and teaching.
- Provide financial incentives to attract teachers.
- Recruit science and math teachers from other states. Use tax credits and interest free loans to attract talent.
- Create state science lab system to improve existing economic base.
- Implement more technology and engineering programs for student interest at the K-12 levels.
- Start STEM curriculum in the early grades. Give tax credits and other money (new and existing) to provide incentives.
- Technology and engineering programs need to integrate more math and science content to show relevance.
- Mandate high expectations for teachers and students.
- Engage students in the process.