

STEM Task Force Business Sector

1. **Big Idea** – Identify one “big idea” that could dramatically enhance Kentucky’s performance in the STEM disciplines.
 - Kentucky should lead the nation in developing alternative fuels to help the USA become self sufficient. With a national goal of energy independence providing hundreds of thousands of math and science students.
 - Funding and/or scholarship program modeled after KEES which will encourage k-12 students to pursue STEM disciplines. Possibility of free college if a student is successful. Employers hire from a pool of grads and possibly fund scholarships with student working debt off.
 - Every child is exposed to the opportunities for an education and career in science and technology, with follow-up for children with potential need.

2. **Collaboration** – What partnerships or collaborations could leverage Kentucky’s investment in the STEM disciplines?
 - Industry, state economic development, state legislature and education leaders communicate with parents and students where the jobs are and how math and science can qualify the students for those jobs.
 - Become active partners with non-profit groups who are producing programs to encourage students in the STEM related disciplines.
 - Business – Media – Academia
 - Retired professionals with science/ technology training and job experience. As baby boomers retire, they may help fill the gaps in teachers with knowledge/ expertise in these areas. Create special positions for them to teach?

3. **Action** – Identify three actions that your sector might undertake that could improve Kentucky’s capacity to create knowledge economy jobs within the Commonwealth.
 - Promote energy independence as a national goal.
 - Businesses form partnerships/sponsor/participate with programs promoting STEM disciplines.
 - Meet with Kentucky Education Partnership Board and a search consultant to encourage new cabinet secretary to push knowledge based job creation (DCI?) vs. manufacturing.
 - Assist in developing STEM scholarship program.
 - Invest in small business.

- Form a coalition to promote/market Kentucky STEM by highlighting each companies' use of engineering talent.
- Pass SB 1 & 2.
- Guide students toward curriculum that matches their aptitude and interests.
- Identify (with tag line such as Kentucky Proud) your company/organization as a supporter of specific STEM related programs.
- Need to have more companies consider and select Kentucky as a central place to locate for engineering talent. Our sector could provide contacts and consultants in the decision process.
- STEM Task Force needs to set out a quantifiable set of gals so we know when the state has achieved success, i.e., increase graduates with BS in engineering or chemistry or math by X%, Ph.D. by X%.
- Recruit and compensate the very best principals, teachers.
- Recognize the VALUE of "knowledge economy jobs" and those preparing folks for those jobs – pay, etc.
- Offer "real world" experiences to teachers in the interest of influencing the relevance of the classroom.
- Have company resource involved in schools as substitute teachers to excite students about STEM. (Lexmark Substitute Teacher initiative)
- Poll Business community regarding needs, length of time to fill vacancies with qualified applicants, and reduce that time... as a goal our "group 1" said we should focus on sustainability, not just energy.
- Further develop math and science curriculum for internet and computer instruction.
- Humana example to give scholarship credits to (K-12) STEM students for STEM degrees at Kentucky universities.