

# Achieving Model Schools 2022

## A Global Learning and Leadership Approach

Revolutionize Education by Emphasizing Partnerships with Schools, Park Districts, Library Systems, Higher Education, Labor, Government, and Community Stakeholders

**Problem Statement** International assessment tests show that U.S. students rank significantly behind their peers in other countries. In the 2015 Programme for International Student Assessment, ***U.S. students ranked 24<sup>th</sup> in reading, 25<sup>th</sup> in science and 40<sup>th</sup> in math.*** A further decline from 2012 performance levels. This bodes poorly for our nation's economic stability and security.

***We can and must do better.***

To Achieve Quality Leadership in Education to Fully Prepare Students to be World-Ready, it is essential to

- Meet student needs and community goals by focusing on STEM opportunities and experiences that foster excitement and engagement by all participants in the learning processes
- Provide world class professional development for instructors on a continuing basis to achieve a high level of proficiency in STEM principles, methods and applications including regular and frequent on-site support
- Apply and integrate powerful Information and Communication Technology (ICT) in the learning process, use ICT as a support tools to enable children and youth to gain a competitive edge
- Merge education with real workforce experiences from industry, business, college and university, labor, government and community organizations
- Involve parents on a regular basis in the learning activities of their children
- Prepare students to be community, national and world contributors (ready to lead and support local and national economic development)

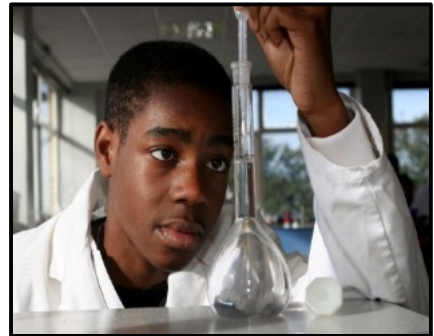
## Why STEM?

In the 21<sup>st</sup> century knowledge-based technology-driven global economy, virtually all workers need to be literate in science, technology, engineering, and math (STEM). Education in America is unequal for minorities and those living in high-poverty areas. Students must earn a HS diploma, associate degree, vocational certificate or a four-year college degree to be successful in the 21<sup>st</sup> century. For pursuit of higher education, it is important to recognize that the top 10 B.S. degree majors with the highest median earnings are all in STEM fields. And most important is the fact that STEM jobs grew 3 times faster than non-STEM jobs during the period of 2005 – 2015.

### ***Goals of the GL2 Model Schools Approach for 2022***

#### **Community Goals**

1. Attract new and retain existing businesses to support STEM education and innovation, solicit major industry and business support for the community's STEM programs
2. Give industry, colleges, and civic groups a direct stake in the development and implementation of local innovative curriculum-focused opportunities
3. Infuse a sense additional pride in the community and its schools
4. Enhance the community's reputation for STEM innovation and excellence



#### **School, Park District and Library System Goals**

1. Increase Facility Utilization
  - 7am – 3pm Standard Academic Day
  - 3pm – 9pm Expanded Learning Opportunities include technical training
  - Nutritious food and snacks provided 3pm – 9pm
2. Incorporate State of the Art ICT to Open New Worlds of Learning
  - Internet 2, virtual presence, touchable ability, huge LED displays
  - Involve students with mentors on real world projects and assignments
  - After school opportunities enable children to continue projects started during the academic day including social development efforts



3. Utilize Available Community Resources and Partners

- Private research facilities, Entrepreneurs, Industry, Business, College and Universities, Unions, Civic Organizations, Municipal Government, and Federal Agencies and their programs and research laboratories
- Summer STEM Program activities enable participants to experience opportunities that are not feasible during the academic day or the after school program



**Global Learning and Leadership** believes that STEM Proficient Students and Workers equals Prosperous Secure Communities

**Goals for Expanded Learning Opportunities Provide**

1. Increase ICT access, continue projects/assignments started during the school day
2. Provide additional academic and technical education learning opportunities
3. Direct assistance to evaluate skills required for careers (engineer, scientist, electrician, pipefitter)
4. Extend learning time each school day
5. Offer tutoring and homework assistance
6. Infuse basic life skills including health options for urban lifestyles



**Community Perspective**  
The Model Schools 2022 Approach will advance education, business, labor, and college partnerships to support a community in achieving its goals

Reliance upon strategies identified below will enable the STEM Project Team(s) to achieve expectations to the degree that the **Community is recognized nationally as a leader in STEM education.**

Community STEM Project Teams (Alliances) will support the position that **STEM proficient students and workers equal prosperous and secure communities**

## Implementation Strategies

**Project Phases:** develop, demo, test, replicate

**Tailor Teaching Curriculum:** augment existing core subjects by infusing STEM in all subject areas

**Use 21<sup>st</sup> Century Skills**

**Trained to Use Tools:** training provided

**Academic/Technical Education:** Career Pathways

**Seamless Education Pathways:** industry, business, labor, university, government, laboratory research

**Virtual Classroom Interaction:** virtual presence

**Strong Community Support/Direct Involvement**

**Opportunity to Use Advanced ICT After Hours**

**Mentoring:** representatives from industry, business, researchers, entrepreneurs, and government agencies

**Interact with Innovative Education Programs:** identify lessons learned and practices to deploy

**Support from Numerous Organizations**

**Use of Mobile Specially-Equipped Labs:** interact with rural school partners



## Digital Learning Resources/Opportunities

**Trained to access digital resources:** proficient in identifying/using digital resources

**Curricula incorporates:** best available resources with optimum, inquiry based learning practices

**Students, teachers, classes:** travel instantly anywhere globally with ease

**Virtual field trips:** virtual access to industry, business, government, technical training and research operations to reinforce digital content

**Guests visit classes:** live on-screen to foster increased interest in learning

**Mentors assist teachers and students:** include them on real-world projects

**University portals:** enhance/supplement assigned classroom and team project work

**Students use language translation:** interact globally via virtual presence with foreign peers using their native language