

**Educating students who can succeed
in a *flat and diverse globe*—**

**Preparing for learning we cannot yet
imagine**



**Global Technology and
Engineering Consortium**

GTEC Global Virtual STEM Education Unique Configuration of Essential Elements.1

- **Students from a school in US study with students from partner-school in another country (use on-line collaborative tools/platforms)**
- **Students work together on STEM Project(s)**
- **Projects provided by/developed with STEM companies**

GTEC Global Virtual STEM Education Unique Configuration of Essential Elements.2

- **Students/teachers trained re:**
- **global team-work & intercultural communication**
 - **global diversity/collaboration**
- **Students mentored by STEM professionals**
- **(&/or college students) from companies**
- **(&/or universities)**

21st Century Skills

Unique Configuration of Essential Elements.3

- **Global Awareness**
- **Creativity, Learning & Innovation Skills;**
- **Critical thinking & Problem Solving;
Communication & Collaboration;**
- **Life & Career Skills;**
- **Information Literacy; Media Literacy;
Information Collaboration Tools (ICT)**
- **Ethics & Empathy**

Preparing for Learning in the future Unique Configuration of Essential Elements.4

- **“A learning environment that is flexible & mobile” or “classrooms without walls”**
- **Digital content**
- **One to one device for each learner/teacher**
- **Blended learning: online & hybrid environments**
- **Everyone is a teacher**

Diversity Skills Needed for Working Globally

Unique Configuration of Essential Elements.5

- **Knowing one's own beliefs & assumptions about differences & stereotypes**
- **Ability to take cultural differences into consideration while participating in a project & building multicultural team**
- **Examining one's personal values & their impact on one's actions, reactions, & perceptions**

Unique Configuration of Essential Elements.6

- **Working effectively /managing across cultures**
- **Using advanced communication technology for global engineering/ technology/science projects**
- **Developing knowledge base required by global engineering/ technology/science corporations**

Unique Configuration of Essential Elements.7

- **Developing various communication styles; verbal & non-verbal communication; contextual communication; native vs. foreign language**
- **Mindful consideration of cultural & stylistic differences**
- **Productive functioning of the global/virtual multicultural team while the team works on designing/producing the final engineering product**

A little history

- **In existence since 2008**
- **Piloted with Spirit of Knowledge Charter School, Newburyport HS & Dennis Yarmouth HS & schools in the UK**
- **Collaboration with Franklin Olin College of Engineering, PTC, November Learning, KMA Diversity & Connecting the Differences Consultants, Davis Square Research Associates, NASA**

The Future

- **The objectives and outcomes**
- **Spreading the word**
- **Achieving more collaborations**
- **Educating more students and teachers**
- **Involving more global companies**

The Team

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