addressing the need for stem education and stem success has a connection to family and consumer sciences at the foundational level.

family and consumer sciences has many connections to stem which range from food technology, nutrition science and textiles industries to early stem skill development in young children, inquiry based instruction and 21st century skills development.

developing stem literacy through fcs

many in the stem profession stress the need for specific aptitudes related to the 21st century skills for stem success. these range from critical and innovative thinking to effective communication and ability to work in teams successfully.

this is also reflected in the occupational framework of the common career and technical core—career ready practices.

family and consumer sciences has been teaching 21st century skills since 1996. this ability to take information in context and process it using these skills is strategic and repeated at increased rigor to ensure students “get it”.

the 21st century process skills, which align with stem literacy skills, are the following:

- problem solving
- decision making
- goal setting
- cooperation
- management
- leadership
- communication
- critical thinking

promoting the stem profession

family and consumer sciences is found in middle and secondary schools across the nation. in fact, 27,000 family and consumer sciences teachers are teaching 3.5 million students annually according to a recent survey by dr. carol werhan, pittsburg state university (kansas). this survey further documented a 3:1 female to male participation which means fcs is placed perfectly to introduce and promote stem to all students, but strategically placed to offer a stem introduction to females.
Documenting STEM Knowledge and Skills Through FCCLA

Family, Career and Community Leaders of America is Family and Consumer Sciences in action. FCCLA offers a variety of experiences to allow the student an appropriate “first step” in leadership, teamwork and related 21st century process skills, including a planning process similar to the engineering design process.

Over 200,000 members, representing all ethnic and socioeconomic circumstance apply the FCS content through their families, school and communities, many working in diverse teams.

Through a 2013 survey of 30,000 secondary students conducted by the National Research Center for Colleges and Universities (NRCCUA), 63.2% attribute their ability to communicate well with others to their FCS/FCCLA experience and 61.3% attributed this combination to their ability to work successfully with others.

In addition, FCCLA offers competitive events in STEM related areas such as Food Innovations, Recycle and Redesign, Sports Nutrition, Interpersonal Communications, Leadership, Culinary Math and Interior Design. Many of these events require an understanding of iSTEM concepts and application.

Gayla Randel, CFCS
National Coalition for Family and Consumer Sciences Education
grandel@ksde.org 785-296-4912