

Project Title: Lean Six Sigma Green Belt

Project Timeframe: March/April

Grade: 12

Subject: College and Career English

Project Summary

Working with different entities throughout the school, students will complete improvement projects in order to understand how to problem solve as a team and how to cut wasted time and resources in ordinary tasks.

Students will work in the following areas:

- **Stress in School**
- **Anxiety help**
- **Patient Care**
- **Bedside Care**
- **School Activities**
- **Engineering Room Must Haves**
- **Misinformation**
- **Food Waste**
- **Etc.**

Learning Goals

- **To provide the basic knowledge and skills to be an effective team leader on a problem-solving team.**
- **To understand the five-step problem solving process called DMAIC (Define, Measure, Analyze, Improve, Control)**
- **To understand when and how to use some of the more advanced problem-solving tools and techniques.**

Ohio Standards

- **CBI 2.14 Prepare for career advancement**
- **CBI 4.5 Demonstrate creative thinking to develop innovative products and processes using technology.**
- **CBI 4.7 Demonstrate knowledge of technology concepts, systems and operations.**
- **CBI 4.8 Use information accurately and creatively to solve problems.**

English Standards

- **RI.11-12.7 Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem**

- **W.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **W.11-12.5** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
- **W.11-12.7** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- **SL.11-12.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- **SL.11-12.1.c** Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
- **SL.11-12.1.d** Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
- **SL.11-12.4** Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
- **L.11-12.1** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.11-12.2** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- **L.11-12.3** Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Major Products

- Students will be solving problems using Sigma techniques. Products to be determined by the projects they choose.
- Students addressed such problems as:
 - Stress in School
 - Anxiety help
 - Patient Care

- **Bedside Care**
- **School Activities**
- **Engineering Room Must Haves**
- **Misinformation**
- **Food Waste**
- **Etc.**
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Community Partners (if applicable): Girls Leap