**Class**: Construction Tech/Integrated Math

**Project Idea**:

Students will research, analyze, and implement building materials and methods that will lead to lower energy costs.

1. Understanding Energy Efficiency

2. Building Principles and Techniques

3. Energy Consumption, Cost, and Delivery

4. Estimation

5. Energy Efficient Building Materials/Products

**Driving Question:**

How can CiTi Construction Technology help lower your utility costs?

**Significant Content:**

**[CCSS.Math.Content.HSN.Q.A.1](http://www.corestandards.org/Math/Content/HSN/Q/A/1/)**Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

**[CCSS.Math.Content.HSN.Q.A.2](http://www.corestandards.org/Math/Content/HSN/Q/A/2/)**Define appropriate quantities for the purpose of descriptive modeling.

**[CCSS.Math.Content.HSN.Q.A.3](http://www.corestandards.org/Math/Content/HSN/Q/A/3/)**Choose a level of accuracy appropriate to limitations on measurement when reporting quantities

**[CCSS.Math.Content.HSA.SSE.A.1](http://www.corestandards.org/Math/Content/HSA/SSE/A/1/)**Interpret expressions that represent a quantity in terms of its context.

**RST.11-12.1**

Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

**RST 11-12.3**

Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

**RST 11-12.4**

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11-12 texts and topics*.

**RST.11-12.7**

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

**WHST.11-12.2**

Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

**Construction Drawing:**

Relate information on construction drawings to actual locations on the print.

Interpret and use drawing dimensions.

Recognize different classifications of construction drawings.

**Products**:

**Team**: Energy Audit

The presentation will include the results from the audit and recommendations for saving energy and money.

**Individual**: Home Energy Audit Summary and Recommendation Report

**Public Audience**: Zero Draft Employee, Citi Building and Grounds Director, Wayne Wideman