Mehlville School District STEM

Grades 6 - 8, Duration 1 Semester

## Rationale

The student will find their natural curiosity and imagination engaged in creative problem solving. The Gateway To Technology program is a strong foundation for further STEM learning in high school and beyond, challenging the student to solve real-world problems like designing sustainable housing solutions. Using the same advanced software and tools as the world's leading companies, the student applies principles of math, science, technology, and engineering to their everyday lives.

## **Course Description**

Today's student has grown up in an age of "green" choices. In Green Architecture, the student learns how to apply this concept to the fields of architecture and construction by exploring dimensions measuring, and architectural sustainability as they design housing units using Autodesk's 3D architectural design software.

## **Course Objectives**

- 1. The student will investigate relevant green architecture careers and opportunities.
- 2. The student will develop advanced measurement techniques, including scaled drawings, to solve and communicate solutions to real-world problems.
- 3. The student will apply principles of sustainable architecture.
- 4. The student will demonstrate knowledge of measurement, construction techniques, and the design process.
- 5. The student will use Autodesk architectural software to develop 2D designs into a 3D format.
- 6. The student will collaborate to present environmental issues and potential solutions.

BOE June 14, 2018