Unit 1 Energy and Power, Lesson 1.3 Energy Applications Lesson Plan

COURSE:

EQUIPMENT / MATERIALS / RESOURCES:

Students will need or utilize:

- ☒ Assignment Handouts / Instructions
- ☐ CAD Software
- ☒ Classroom Materials / Equipment
- ☒ Computer / Device
- ☒ Internet Access
- ☒ Microsoft Office Software
- ☒ Online Resources
- ☒ Other Software
- ☒ Schoology
- ☒ Teacher Handouts
- ☐ Other:

AGENDA / ACTIVITIES / INSTRUCTIONAL PROCEDURES:

Teacher Activity (Introduction to New Material)

The teacher will:

Review the Learning Objectives and Essential Questions for the lesson (at the beginning and throughout).
Lead a class discussion about the Learning Objectives and Essential Questions for the lesson.
Provide an overview of assignments that will be worked on throughout the lesson.
Demonstrate expectations / skills.
Provide instructions for *Project 1.3.1 Solar Hydrogen Systems (VEX)*.
Lead a class discussion via the teacher-led PowerPoint presentation called ñIntroduction to Thermodynamicsò.
Provide instructions for *Activity 1.3.3 Thermodynamics*.
Assess student presentations/work.
Provide instructions for the *Lesson 1.3 Test*.

Guided Practice

The teacher will:

Review agenda, learning objectives, and essential questions daily.
Lead students to recall prior knowledge / experience to make connections to new content.
Introduce content to be learned.
Clarify and check for understanding by asking open-ended questions (or by some other type of formative assessment) throughout instruction. Reteach material as needed.
Pace the classroom instruction to clarify misunderstanding and provide opportunities for student feedback.
Introduce new content to be learned and how it connects to learning objectives and answers some (or all) of the essential questions.
Demonstrate skill practices students will gain from this lesson.
Demonstrate assignment(s) outcome expectations.
Review resources and equipment needed to problem-solve student assignments.
Share safety instructions to students. *Safety Instructions: Students should only utilize equipment they have been fully trained to use.*
Provide review material / resources for students to prepare for summative assessments.

Transition

- ☒ Classroom Expectations / Routines
- ☒ Review Questioning
- ☒ Stimulus or Signal (Example: ñPencil Dropò, ñEyes on Meò, etc.)
- ☒ Student Reflection
- ☒ Timer