

Wisconsin Student Learning Objective

After reviewing available data and identifying the student population for whom the SLO will apply based on the needs identified by trends and patterns in the data, create a Student/School Learning Objective. Submit the SLO Plan to your evaluator prior to the Planning Session.

Subject Area/Grade Level

Technology Education/High School

Baseline Data and Rationale: *(What sources of data did you examine in selecting your SLO? What issues related to student equity can be seen through the data review? Summarize trends and patterns from your data review. If this is the same SLO as you submitted last year/semester/interval, please provide justification for why you are repeating your goal. Did you consider both qualitative and quantitative data?)*

One of the core skills of my Small Engines and Electricity course is the ability to understand engine parts and their functions as to how it relates to the engine working properly. This is a paramount skill in today's automotive and small engine technician's world. Employers and technical schools have indicated that this is an area where students consistently struggle. Improving students' ability to recognize assemblies and how they work together will positively impact their ability to work on larger vehicular systems and more complex designs. Moreover, the students taking Small Engines and Electricity have demonstrated a lack of knowledge on engine concepts, identification, and how they work together to complete the 4 strokes (intake, compression, power, exhaust).

Learning Content and Grade Level: *(Which content standards are relevant to/related to/in support of your goal? Is this content reinforced throughout the interval of this goal? Did you identify the national, state, or local standards relevant to your role in the district?)*

PE1.c.13.h – Demonstrate efficient use of energy resources related to power and energy technology.
 PE1.d.9.h – Demonstrate the application of the Design Process to solve a problem related to technology, power and energy systems.
 BB1.c.4.h – Build, test and trouble shoot simple linear, rotary and compound mechanisms.
 TR1.b.7.h – Interpret preventative maintenance schedules and recommended service intervals for vehicles and engines. Small Engines and Electricity = 9th-12th

Student Population: *(Which students are included in the target population? How does the data analysis support the identified student population?)*

All students taking 3rd term Small Engines and Electricity will be included in the SLO. Total of 11 students, 10 male and 1 female, grades 9th through 12th, ethnicity white and 6 students with IEP's.

Targeted Growth: *(Have you identified the starting point for each target student? How did you arrive at these growth goals?)*

By the end of the term students will identify and explain 80% of the engine parts and functions with 100% accuracy as measured by Lab Activity 1, Micrometer Readings WKS, Internal Combustion Engines Worksheet, Engine Parts and Their Functions Note Taking Guide, Engine Parts Video, Engine Fundamentals Test and Engine Overhaul Procedures Lab.

Interval: *(Does the goal apply to the duration of the time you spend with your student population (ex. Year, Semester, Trimester, etc.)?)*

Since this is a quarter-long class, I will be working on this student-learning objective with the targeted population for the quarter.

Evidence Sources: *(What benchmark assessments will you use (pre-instruction, mid-interval, post-instruction)? What formative practices will you use to monitor progress throughout the interval? What summative assessment will you use to determine student growth at the end of the interval? Is the assessment: Aligned to the instructional content within the SLO? Free of bias? Appropriate for the identified student population?)*

Student assignments, worksheets, labs, pre/post tests -Student video portfolios to measure growth -Engine Overhaul Procedures Lab - Engine Fundamentals Test -Student/Teacher Evaluations -Observations and Conversations

SLO Goal Statement: *(Specific, Measureable, Attainable, Results-based, and Time-bound)*

91% of students in Small Engines and Electricity performed below benchmark, as measured by the Engine Theory and Functions Vocabulary Pre-Test to start the course. By the end of the term, 75% of the students will meet the vocabulary and engine theory benchmark of proficient or advanced as measured by Lab Activity 1, Micrometer Readings WKS, Internal Combustion Engines Worksheet, Engine Parts and Their Functions Note Taking Guide, Engine Parts Video, Engine Fundamentals Test and Engine Overhaul Procedures Lab.

Instructional Strategies and Support: *(What professional development opportunities support this goal? What instructional/leadership methods will you employ so that students progress toward the identified growth goal? How will you differentiate instruction to support multiple growth goals within your population? Who might you collaborate with in order to support the unique learning needs within your group?)*

Provide students with real work experiences working on engines and other various systems

- Individual instruction and **differentiated instruction**
- Live demonstrations
- Videos
- Group problem-solving tasks
- Small engine software and technology