

Middle Bucks Institute of Technology

Course - Electrical Technology

Instructor: Randy McDowell

Date(s): Week 9-10

Lesson Title: Testing Equipment Level 300

Lesson Number: 1100

Unit: Level 3 Semester 1 Testing Equipment

Objectives/Description:

Students will understand how to choose the appropriate tester and use it with 100% accuracy

Tasks/Learning Activities: (student focused)

PA1100 - Testing Equipment

PA1101 - Use a multimeter to test a circuit.

PA1103 - Use a plug-in circuit tester.

PA1104 - Use a clamp-on ammeter.

PA1106 - Use a circuit tracer.

PA1108 - Apply Ohm's/Watt's law calculations to electrical applications.

Standards / Assessment Anchors

Literacy
READING

CC.1.2.11-12.B Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs.

WRITING

CC.1.4.11-12.H Write with a sharp distinct focus identifying topic, task, and audience

- Introduce the precise, knowledgeable claim.

LISTENING & SPEAKING

CC.1.5.11-12.D Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are appropriate to purpose, audience, and task.

Math

CC.2.1.HS.F.2 Apply properties of rational and irrational numbers to solve real world or mathematical problems.

Career Education & Work

13.3.11.A Evaluate personal attitudes and work habits that support career retention and advancement.

Instructional Activities: (teacher focused)

- *Pre-Learning
 - Cornell Notes (A X)
 - Triangle Truths (A X)
- *Post-Learning
 - Demonstrate what was learned
 - Exit slips of learning
 - Test question list
 - Writing journals

Special Adaptations:

Per student accommodations

- Study Guide
- Use of Calculator
- Drill and Practice (Repetition of Material)
- Teacher Modeling
- Communication Regarding Behavior & Consequences (PBS)
- Taking Tests in Alternate Setting (or if requested)
- Extended Time (assignments and/or testing)

Assessment:

FORMATIVE/SUMMATIVE EVALUATION

- Traditional Tests - multiple choice, matching, true/false, short answer completion
- Traditional Quizzes - multiple choice, matching, true/false, short answer completion
- Exit Slips
- Textbook Computer Generated Tests
- OBSERVATIONAL EVALUATION
 - Teacher checking and scoring as each part of an activity is being done correctly
 - Teacher evaluating if PA Program of Study tasks are being achieved as expected
 - Account if students are prepared for class each day

- Account if students are wearing appropriate clothing when necessary
- Use of calculator

Safety:

All work shall be performed in a workmanlike and safe manner according to industry and OSHA standards.

Lesson Preparation:

Check to make sure powerpoint presentations and study guide reflect the most current standards and codes.

Access Motor Control book

Print our teacher made handouts and practice sheets

review unit values of current, resistance, power, and electrical pressure.

Calculators or cell phones for math problems

make sure all students have their testers with operational batteries

prepare materials for practice testing

Resources/Equipment:

Electrical supplies & equipment

Powerpoints

Electrical Motor Controls book

Teacher made handouts

Safety Manual

Google Classroom

Additional Notes:

Supplemental materials will be posted in Google Classroom.