

Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1



Task Title: Interpret Electrical Measuring Equipment Readings

OALCF Cover Sheet – Learner Copy

Learner Name: _____

Date Started: _____

Date Completed: _____

Successful Completion: Yes ☐ No ☐

Goal Path: Employment ☐ Apprenticeship ☐

Secondary School ☐ Post Secondary ☐ Independence ☐

Task Description: The learner will find and interpret information about electrical measuring equipment and processes.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Read continuous text/A1.3
- Find and Use Information/Interpret documents/A2.2
- Find and Use Information/Extract info from films, broadcasts and presentations/A3
- Understand and Use Numbers/Use measures/C3.1
- Use Digital Technology/D.1

Materials Required:

- Pen/pencil and paper
- Computer or digital device

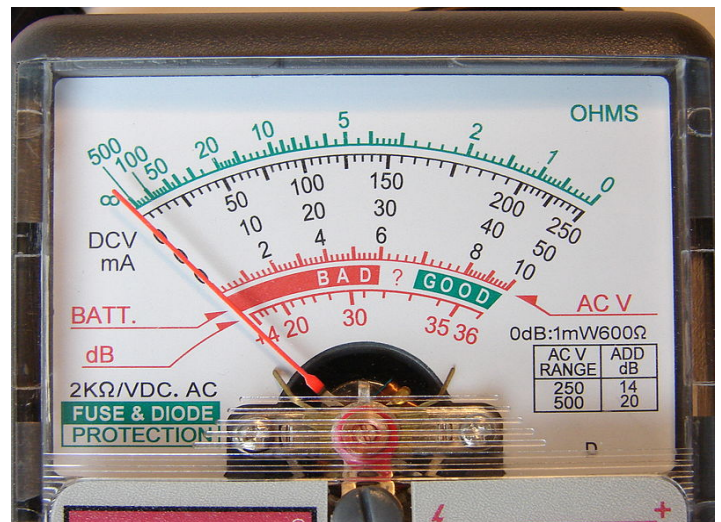
Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1

Learner Information

Electricians use electrical measuring equipment to test systems and components. They use the readings to determine if a component needs to be replaced, if a system has been safely shut down (lock out and tag out), and to determine the voltage, amperage, and wattage of systems and components.

Scan the "Multimeter Images".



Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1

Work Sheet

Task 1a: What colour is used to measure the ohms of a circuit?

Answer:

Task 1b: Circle on the picture where the meter setting dial should be set to measure a 9 Volt battery.

Answer: No written response required here.

Task completed: Yes: ☐

Task 1c: Electricians always set the meter slightly higher than the expected voltage being measured. Circle on the picture where the dial should be set to measure a 240 volt AC circuit.

Answer: No written response required here.

Task completed: Yes: ☐

Task 1d: Batteries are considered in working order at 70% voltage or better. A 9 Volt battery reading shows the needle at about 43%. In what range will the needle point?

Answer:

Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1

Go to the Lockout/Tag out page on the Canadian Centre for Occupational Health and Safety website:

<http://www.ccohs.ca/oshanswers/hsprograms/lockout.html>

Task 2a: List three key pieces of information to be included on a tag?

Answer:

Task 2b: An electrician uses a voltmeter to ensure the power to a circuit is safe to complete the lock out/tag out procedure. Explain what the voltage reading should be and why this is the case.

Answer:

Watch this video about using digital and analog ohmmeters:

<http://www.youtube.com/watch?v=ocvaqGzvE2I>

Task 3a: How does an electrician test the ohmmeter to be sure it is working?

Answer:

Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1

Task 3b: How does an electrician 'zero' out the analog ohmmeter?

Answer:

Task 3c: Using a meter reading at the two terminals, how do you know if a stove element is working?

Answer:

Task 3d: Draw a line to the dial to be used when 'zeroing' this analog meter.

Answer: No written response required here.

Task completed: Yes: ☐

Task Title:

InterpretElectricalMeasuringEquipmentReadings_A_A1.3_A2.2_A3_C3.1_D.1

