

## Agriscience Mechanics Information Sheet – 2024

### **Practicum #1 Portable Power Tools**

Students will complete a practicum activity relating to portable power tools. These questions may include, but are not limited to: safety, parts identification, blade and bit selection, finishing wood, voltage range, load rating, etc.

Questions include equipment in the cutting and wood boring sections of the Agriscience Mechanics Identification Sheet.

All questions will be multiple-choice. See the provided scantron sheet for directions and review how to properly fill it out with your contestants

Virginia Agriscience competencies covered in this practicum:

- Identify portable hand tools, portable power tools, equipment, and accessories.

Resource: Ag. Mechanics Fundamentals & Applications text 5<sup>th</sup> ed.; Section 4, Unit 14.

Time Limit: 12 ½ minutes

Scoring: 50 points

### **Practicum #2 Agriculture Project Construction**

Students will complete a practicum activity relating to constructing agriculture projects. Contestants should be able to read and interpret project plans. Contestants will receive a set of agriculture project plans and determine part dimensions, quantities of material, ordering dimensions, hardware needed, cut angles, and description or use.

Questions include equipment in the fastener, layout, and other sections of the Agriscience Mechanics Identification Sheet.

All questions will be multiple-choice. See the provided scantron sheet for directions and review how to properly fill it out with your contestants.

Virginia Agriscience competencies covered in this practicum:

- Interpret plans for constructing an agriculture project.

Resource: Ag. Mechanics Fundamentals & Applications text 5<sup>th</sup> ed.; Section 5, Unit 19.

Time Limit: 12 ½ minutes

Scoring: 50 points

## **Skill – Basic Electricity**

Students will perform basic electrical wiring to properly connect Romex cable to electrical equipment. Electrical equipment can be a single pole switch, duplex receptacle, grounding 3 wire plugs, or keyless ceiling socket. Students should be familiar with proper electrical wiring procedures.

Students will be graded on proper safety and tool use, correct polarity, connections on terminals, and equipment secured properly. Students will answer questions about the electrical equipment. Students will be provided with directions and a grading rubric.

All contest materials and tools will be provided. Safety glasses will not be provided and must be worn during this portion.

Time Limit: 25 minutes

Scoring: 100 points

Resource: Ag. Mechanics Fundamentals & Applications text 5<sup>th</sup> ed.; Section 11, Unit 32 & 33.

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