

**LOT 28 4-H WOOD SCIENCE AND ELECTRICITY**

4-H Premiums: Blue- \$4.00, Red- \$3.00, White- \$2.00

4H WOOD SCIENCE		4H WOOD SCIENCE CONT.	
Class	Description	Class	Description
4H 674	Level 1, made from a kit. Simple items which have pre-cut and pre-drilled parts and youth demonstrate knowledge of assembly, selection and use of fasteners (nails, screws, and/or glue), sanding techniques, and appropriate finishes.		Level 4, NO kits. Exhibits that do not have a fine finish (painted finish allowable) because of practical use. Items demonstrate knowledge of all woodworking techniques learned in previous levels. Items showing a mastery of cutting, drilling, join construction, use of special woods, and appropriate finishes. (Examples, porch swing, chaise lounge, picnic table, lawn chair, large planters, etc.) This exhibit is to be made up of two parts: 1) the item and 2) a folder containing photographic documentation of the steps taken in order to complete this exhibit.
4H 675	Level 1, NOT from a kit. Simple constructed wood item showing knowledge of hand tools, wood selection, cutting, drilling, use of fasteners (nails, screws, and/or glue), sanding techniques, and appropriate finishes.	4H 680	
4H 676	Level 2, made from a kit. More elaborate items which require cutting, drilling and youth demonstrate knowledge of selection and skill in use off fasteners (nails, screws, and/or glue), sanding techniques, and appropriate finishes.		
4H 677	Level 2, NOT from a kit. More elaborate items that demonstrate a mastered skills with hand tools, basic knowledge of power hand tools, fastening options, appropriate surface preparations, and finish applications.		
4H 678	Level 3, NOT from a kit. Items showing a more advanced knowledge of power tools, expertise in cutting, fitting, surface preparation, attention to fastening details, and finish applicaion. This exhibit is to be made up of two parts: 1) the item and 2) a folder containing photographic documentation of the steps taken in order to complete this exhibit.		
4H 679	Level 4, NO kits. Exhibits with a "furniture" quality finish, showing an understanding of all woodworking techniques learned in previous levels. Items showing a mastery of joint construction and use of special woods, and finishes. This exhibit is to be made two parts: 1) the item and 2) a folder containing photographic documentation of the steps taken in order to complete this exhibit.		
<b>4H ELECTRIC</b>			
Rules			
		1	Exhibits must be made according to the instructions in the 4H project book.
		2	Use of molded plug-ins is NOT prohibited but discouraged.
		3	No cord that has been bought in a store and later repaired may be entered.
		4	Effective strain relied should be provided for all wire to terminal connections. Knots, clamps, connectors, or staples are acceptable when used appropriately.
		5	Any electric project observed or judged to be unsafe or potentially harmful to the publis or surrounds will be disqualified immediately and disabled for further use.
<b>4H MAGIC OF ELECTRICITY</b>			
		4H 645	Battery powered series and parallel circuits (Circuits must include both series and parallel, a simple switch and can be no more than 9 volts).
		4H 646	Homemade Galvanometer (Must be able to detect the presence of an electrical current).
		4H 647	Electromagnetic Circuits (Must be a working electromagnet with a simple switch and can be no more than 9 volts).
		4H 648	Simple homemade DC motor (Rotor must turn under its own power).

**4H INVESTINGATING ELECTRICITY**

Class	Description
4H 649	Battery powered series or parallel circuit (Circuit may be either series or parallel, must contain either a momentary and/or three-way switch, a circuit diagram with explanation and can be no more than 9 volts).
4H 650	Original design soldered circuit project (Circuit must contain an on/off switch, a motion or tilt activated switch, a light and sound producing device and must be powered by 9 volts. All connections in the circuit must soldered and a circuit diagram with explanation must be included).
<i>**More advanced units available for entry - Contact the Extension Office for details. (859) 987-1895</i>	