



C.V. Tart Agricultural Tools and Materials Career Development Event

Sponsor

This event is sponsored by the C.V. Tart Endowment.

State Event Superintendent

The superintendent for this event is Mr. Joshua Bledsoe, NC State University, Campus Box 7654, Raleigh, NC 27695 Phone: 919.513.1205 Fax: 919.513.3201 Email: joshua_bledsoe@ncsu.edu

Eligibility and General Guidelines

This event is open to active FFA members who are enrolled in Agricultural Education as a 6th, 7th, 8th, or 9th grader. In addition, 10th grade students enrolled in their first year of agricultural education are eligible to compete in this event. No juniors or seniors are eligible to compete in this event at any level. Students may compete more than once, however FFA members winning a previous state event in this area are ineligible.

The top three teams in each federation are eligible to participate in the state event. The top three individuals in each federation event are eligible to participate in the state event as individuals regardless of their team placing.

Teams may consist of three or four individuals. The fourth lowest team member score is not considered except in the case of a tie. No alternates are allowed in state events. Any alternate found participating in a state event will result in team disqualification. FFA members and advisors may not visit the site of a state career development event within seven days of the start of the event. Teams that violate this rule will be disqualified.

FFA members in good standing may also participate as individuals in this event. A chapter may have up to two members participate as individuals as long as the chapter does not have a team participating in the event. Their scores will only count toward individual recognition and will not be calculated as a team score. Three members participating in this event from the same chapter constitute a team.

The use of cellular phones or any other mobile electronic communication device is prohibited during any state-level career development event. Any violation of this rule by any team member will result in total team disqualification.

The North Carolina FFA Association, in keeping with the FFA mission and purposes, does not permit the use of tobacco products, e-cigarettes, vapes, or Juuls at any FFA facility or at any FFA activity.

Any member found cheating in any state-level career development event will result in total team disqualification for that event.

At the North Carolina FFA State Convention, participation in more than one CDE/LDE is permitted as long as events are not being held concurrently, and no special provisions are required to facilitate participation.

In compliance with the Americans with Disabilities Act, North Carolina FFA will honor requests for reasonable accommodations made by individuals with disabilities. Please direct accommodation requests through the CDE/LDE Accommodation Request [Form](#). If the accommodation can be made for all and/or doesn't provide an unfair advantage, then every effort will be made to provide the accommodation. Requests can be accommodated more effectively if notice is provided at least 10 days before the event.

Middle School Participation

Middle school students and teams may participate in Career Development Events or Leadership Development Events. The top middle grades team will be recognized at the state FFA convention. Middle school participants should designate during registration.

Dress Code

The North Carolina FFA Association strives to promote a positive image at all Official FFA Events. The dress code policy was established to address the issue of appropriate attire at all Official FFA Events. Members should adhere to this policy for all events. A ten percent reduction will be applied to all individual scores from a chapter if a participant from that chapter violates the dress code during that event.

Participants should wear long pants, an appropriate shirt with a collar or an appropriate high school or FFA t-shirt or they may wear official dress as described in the FFA manual.

Procedures for Administering the Event

The event coordinator shall be responsible for setting up the event, choosing event officials, and developing materials according to the criteria listed below.

The Tool Identification Phase (80 points total and 40 minutes to complete)

1. Forty (40) tools will be selected from the attached official list.
2. Each tool used in the event shall have a number attached to it by a string; thus, participants can pick up the tool to examine it.
3. Participants will place the number of the tool in the space to the left of that tool name on the official list.
4. When more than one set of tools are used, they shall include the same tools.
5. No tool will be used more than once in the identification portion of the event.
6. Each participant will be assigned a tool to begin identification.
7. Each participant will remain at each tool for one minute and then progress to the next tool.
8. No participant will be permitted to go to a tool for a second time.
9. Grading will be done by giving two (2) points for each tool correctly identified.
10. Only properly bubbled answers on the scantron will be counted.
11. If it is observed that a participant uses the same number on his or her paper for more than identification, neither number will be counted as correct thus resulting in a penalty for using the same number twice.

12. When teachers are involved in the grading of papers, they shall not grade any papers of their own team members.

The Knowledge Test Phase (50 points total and 40 minutes to complete)

1. A written test designed to test the knowledge of the participants regarding the proper use of 25 randomly selected tools will be developed by the coordinator. Twenty-five (25) uses will be selected from the attached tool identification listing.
2. Only properly bubbled answers on the scantron will be counted.
3. Each participant will be given 40 minutes to complete the test. Two (2) points will be given for each tool with the correct use.
4. When teachers are involved in the grading of papers, they shall not grade papers of their own team members.

Scoring

1. The top three scores of participants from a team will be counted to determine team rankings.
2. Papers of the top three teams shall be rechecked for accuracy.

Procedure for Determining the State Event Winner when Scores are Tied

In the event a tie score exists, compare the alternate scores. The lowest team member score is the alternate score.

Special Note: In the event a tie exists between the third-place teams at the federation level, the tied teams will be allowed to participate in the state event.

State Awards

The following awards will be presented annually at the state FFA convention provided sponsorship is available:

- State Winning Team: First place team plaque, pins and toolboxes with a starter set of tools for team members
- Second Place Team: Second place team plaque, pins for team members
- Third Place Team: Third place team plaque, pins for team members
- High Scoring Individual(s): Medallion

The highest-placing middle school team will be recognized only if they are not already among the overall top three teams. If a middle school team places in the top three overall, they will not receive additional middle school-specific recognition.

Supplemental Information

Please review the following pages for supplemental information regarding the agricultural tools and materials career development event.

Name	Proper Use
101. 45° pipe elbow.....	Making a 45 degree turn with a pipe
102. 90° pipe elbow.....	Making a 90 degree turn with a pipe
103. 90° street elbow.....	Making a 90-degree pipe turn; threads on inside of one end and outside of the other
104. Abrasive chop saw.....	Cutting various types and sizes of materials with abrasive wheels
105. Adjustable wrench.....	Turning various sized nuts and bolts
106. Air compressor/hose.....	Machine that supplies air used for tools and equipment
107. Allen wrench.....	Turning hex head socket screws
108. Angle grinder.....	Power tool used for cutting, grinding, or polishing
109. Animal clippers.....	Trimming hair or wool on pets and livestock
110. Aviation snips.....	Cutting sheet metal
111. Backpack sprayer.....	Used to spray liquid pesticides in mist form on plants or soil
112. Ball peen hammer.....	Hammering metal
113. Balling gun.....	Delivering solid medication to large animals orally
114. Bar clamp.....	Clamping large sections of wood together
115. Bent nose pliers.....	Reaching obstructive or awkward places
116. Bolt cutters.....	Cutting bolts and steel rods
117. Bolt die.....	Cutting threads on bolts and rods
118. Bolt die stock.....	Holding a bolt die
119. Bolt tap.....	Cutting inside threads
120. Bolt tap wrench.....	Holding bolt tap
121. Brick jointer.....	Smoothing and designing masonry joints
122. Brick trowel.....	Placing and spreading mortar
123. Butt hinge.....	Hinge for narrow facing
124. C clamp.....	Clamping two or more pieces of metal together
125. Carriage bolt.....	Bolting wood to wood or wood to metal
126. Castrator.....	Sterilizing male animals
127. Caulking gun.....	Holding a tube with material for patching holes or sealing cracks
128. Center punch.....	Starting holes in metal
129. Chalk line reel.....	Marking straight lines
130. Chipping hammer.....	Removing slag from welds
131. Circuit breaker.....	Protecting electrical circuits from overload
132. Circular saw.....	Sawing wood in construction projects
133. Clinometer.....	Measuring heights of objects or elevations of slopes

134. Cold chisel.....	Cutting metal
135. Combination square.....	Determining 45° and 90° angles
136. Combination wrench.....	Turning hex and square nuts and bolts
137. Common nail.....	Nailing boards together where holding power is desired
138. Compression tester.....	Providing accurate readings on the pressure inside engine cylinders
139. Concrete finishing trowel.....	Smoothing concrete
140. Concrete float.....	Leveling concrete
141. Concrete screw.....	Anchoring into predrilled holes in concrete, brick or block
142. Coping saw.....	Cutting curves and irregular cuts
143. Countersink.....	Flaring top of hole for recessing head for flathead screw or bolt
144. Curry comb.....	Removing mud, dirt, and hair from animals' coats
145. Cutting torch.....	Cutting metal with heat
146. Deep socket.....	Turning nuts and bolts in depressed areas
147. Dehorner.....	Removing horns from cattle
148. Diagonal cutting pliers.....	Surface and diagonal wire cutting
149. Drench gun.....	Administering precise amounts of liquid medications to animals
150. Drift punch.....	Aligning holes
151. Drill press vise.....	Holding stock while drilling
152. Duplex receptacle.....	To plug in electrical units
153. Ear tagger.....	Labeling individual animals for identification
154. Egg candler.....	Detecting embryonic development or for evaluating shell eggs
155. Electrical multimeter.....	Performing various tests on electrical circuits
156. End cutting nippers.....	Cutting ends of wire, nails, and small bolts
157. Engineer's hammer.....	Pounding hot metal, breaking up concrete, or demolition
158. Expansion shield.....	Anchoring a lag screw into concrete, brick or block
159. Extension.....	Extending the reach of a socket
160. Eye bolt.....	Bolt used to attach wire onto
161. Face shield.....	Protecting face from flying debris while working
162. Fecal loop.....	To extract a stool sample from the rectum for analysis
163. Fence pliers.....	Building and repairing wire fences
164. Fence staple.....	Nailing up fence

165. Finishing nail.....	Nailing boards where head will not be noticed
166. Flathead stove bolt.....	Fastening wood to metal or metal to metal with wrench leaving a flat surface
167. Flathead wood screw.....	Fastening wood to wood where a flat surface is required
168. Framing square.....	Squaring cut corners and laying out stairs and rafters
169. Friction lighter.....	Lighting acetylene and propane torches
170. Fuse puller.....	Removing cartridge fuses
171. Garden trowel.....	Used for smaller garden chores like planting, weeding, and scooping soil or media
172. Gate valve.....	Cutting off water supply on a main line
173. Glass cutter.....	Cutting glass
174. Grafting tool.....	Preparing woody parts for grafting
175. Grease gun.....	Lubricating through grease fitting
176. Groove joint pliers.....	Gripping when greater pressure is needed
177. Ground fault circuit interrupter (GFCI).....	Shutting off power when current flows along an unintended path
178. Hacksaw.....	Sawing metal
179. Half round file.....	Curved and flat filing
180. Hammer drill.....	Power drilling in concrete, brick or block
181. Hand compass.....	An instrument that indicates magnetic north
182. Hand hoe.....	Used to till the soil
183. Hearing protection.....	Decreasing hearing exposure to high decibel levels
184. Hedge shears.....	Trimming and shaping hedges
185. Hinge handle/flex handle.....	Socket handle to be used when flexibility is needed
186. Hitch pin.....	A fastener used to connect as drawn (pulled) implement to a tractor
187. Hoof knife.....	Removing hard and uneven surfaces on an untrimmed hoof
188. Hoof rasp.....	Coarse file used to trim and shape the hooves of animals
189. Hose bib.....	Valve for attaching a water hose; turning water supply on and off
190. Impact driver.....	Uses a combination of rotational and concussive force to drive fasteners into various materials and uses a quick – change clamp
191. Impact wrench.....	Installing or removing fasteners, lug nuts, or lag screws

192. Implant gun.....	Injecting growth hormones in animals
193. Impulse sprinkler.....	Overhead irrigation of plants where rotation is water driven
194. Increment borer.....	Checking growth rate of trees
195. Jig saw.....	Making irregular cuts
196. Junction box.....	Joining several electrical wires into a circuit
197. Lag screw.....	Screw used where great pressure to turn is required
198. Laser level.....	Projecting a line vertically and/or horizontally to serve as a visual guide
199. Level.....	Leveling and plumbing
200. Line level.....	Leveling between long distance points
201. Locking pliers.....	Extra firm gripping
202. Locking welding clamp.....	Used for extra firm gripping of welding materials
203. Long nose pliers.....	Reaching into recessed areas
204. Lopping shears.....	Cutting large branches when pruning shrubbery
205. Machine bolt.....	Fastening metal to metal with a wrench
206. Machinist's vise.....	Holding metal firm while working
207. Mason hammer.....	Chipping and shaping masonry material
208. Mason level.....	Leveling and plumbing masonry materials
209. Masonry bit.....	Boring a hole in concrete, brick or block
210. Masonry nail.....	Nailing in concrete, brick or block
211. Micrometer.....	Gauging or measuring small distances or thicknesses
212. Mill file / flat file.....	Filing metal
213. Miter saw.....	Cutting 90 degree crosscuts as well as various angles
214. Muzzle.....	Fastening or covering the mouth of an animal to prevent eating or biting
215. Nail gun.....	Rapid nailing using air, gas, or electricity
216. Nail hammer.....	Driving nails
217. Nail set.....	Countersinking nail heads
218. Nut driver.....	Socket permanently attached to a handle for turning small nuts and bolts
219. Obstruction wrench.....	Reaching nuts and bolts around obstructions
220. Oil filter wrench.....	Installing or removing oil filters
221. Open end wrench.....	Turning square head nuts and bolts
222. Oscillating tool.....	A handheld power tool that vibrates back and forth at high speeds to cut, sand, or polish material

223.	Pex coupling.....	Making hot or cold-water supply line connections
224.	Pex pinch clamp ring.....	Securing water supply pipes to fittings
225.	Phillips screwdriver.....	Turning phillips head screws
226.	Pin punch.....	Driving out metal pins
227.	Pipe bushing.....	Connecting pipes of different diameters
228.	Pipe cap.....	Closing the end of a pipe by going over the pipe end
229.	Pipe coupling.....	Joining two pieces of pipe
230.	Pipe nipple.....	Adding length to a piece of pipe
231.	Pipe plug.....	Closing the end of a pipe, threads on the outside
232.	Pipe reducer.....	Reducing pipe size
233.	Pipe tee.....	Joining pipe at 90° angles
234.	Pipe union.....	Joining two pieces of pipe where neither side can be turned
235.	Pipe wrench.....	Turning and holding metal pipe
236.	Piston ring compressor.....	Compressing ring for inserting into cylinder
237.	Plumb bob.....	Vertical plumbing to locate points
238.	Pole pruner.....	Removing elevated or hard-to-reach branches and limbs
239.	Portable drill.....	Drilling holes or driving fasteners with a bit
240.	Portable router.....	Power tool used to shape the edge, cut a groove or mill a design in a piece of wood
241.	Portable sander.....	Power tool used for smoothing surfaces
242.	Pressure gauge.....	Device on a regulator that displays the pressure inside the cylinder
243.	Pruning saw.....	Sawing limbs from shrubbery and trees
244.	Pruning shears.....	Cutting and shaping shrubbery
245.	Putty knife.....	Applying and smoothing putty
246.	PVC cutter.....	Cutting non-metallic pipe
247.	Reciprocating saw.....	Cutting various materials with push and pull blade action
248.	Regular socket.....	General purpose socket for turning nuts and bolts
249.	Respirator.....	Preventing particles, gases, and vapors from being inhaled
250.	Reversible ratchet.....	Turning sockets in forward and reverse rotations
251.	Roofing nail.....	Nailing tin, aluminum, fiberglass, or asphalt roofing
252.	Rotary tool.....	Handheld tool for sharpening, polishing, or trimming various materials
253.	Round file.....	Filing inside holes

254. Roundhead stove bolt.....	Fastening wood or metal to metal with a screwdriver or wrench
255. Roundhead wood screw.....	Fastening wood to wood
256. Rubber mallet.....	Hammering to avoid marring surface
257. Safety glasses.....	Protecting eyes from the impact of foreign objects
258. Safety goggles.....	Protecting eyes from liquid splash, acid vapors, dust, and impact hazards
259. Scale stick.....	Measuring tree diameter and height of trees.
260. Screw extractor.....	Removing broken bolts, studs, or screws
261. Secchi disc.....	Measuring turbidity of water
262. Sheet metal screw.....	Joining two pieces of sheet metal
263. Side cutting pliers.....	Holding and/or cutting wire
264. Single pole switch.....	Completing a circuit or creating a gap in the flow of electricity
265. Sledge hammer.....	Heavy hammering
266. Slip joint pliers.....	Adjust for holding various size material
267. Slotted screwdriver.....	Turning slotted screws
268. Snap ring pliers.....	Removing or installing internal or external snap rings
269. Soil auger.....	Boring into soil to get samples
270. Soil thermometer.....	Measuring the temperature of the soil
271. Soil tube.....	Obtaining soil for testing
272. Soldering gun.....	Melting solder
273. Solderless wire nut.....	Joining two or more electrical wires
274. Spade bit.....	Wood boring bit for electric drill
275. Spark plug gauge.....	Gauging and setting spark plug gap
276. Spark plug socket.....	Installing and removing spark plugs
277. Spark tester.....	Checking the condition of the ignition system at each cylinder
278. Speed square.....	Measuring and marking 0-90 degree angles, finding roof pitches, and laying out rafters
279. Stethoscope.....	Used to listen to heart, lungs, and digestive organs
280. Straight shank drill bit.....	Drilling metal
281. Strap hinge.....	Hinge used where major strength or support is required
282. Sweep net.....	Used to collect insects from long grass
283. Switch box.....	Used to install toggle switches or duplex receptacles

284. Syringe.....	Administering drugs and measuring liquids with a cylinder and plunger
285. T bevel.....	Adjustable gauge for setting or transferring angles
286. T hinge.....	Used where strength is required but one facing is narrow
287. Tape measure.....	Used for straight or curved measuring
288. Tattooing instruments.....	Used to permanently identify animals with numbers or letters
289. Thickness gauge.....	Determining gaps
290. Three way switch.....	Turning current on and off from two locations
291. Tip cleaners.....	Cleaning welding and cutting tips
292. Tire chuck.....	Inflating tires
293. Tire gauge.....	Checking tire air pressure
294. Toggle bolt.....	Anchoring into a hollow space
295. Torque wrench.....	Measuring amount of torque
296. Torx screwdriver.....	Turning torx-head screws and bolts
297. Tree diameter tape.....	Measuring circumference of tree
298. Tree planting hoe or bar.....	Setting out tree seedlings
299. Triangular file.....	Filing saws
300. Try square.....	Squaring 90° angles
301. Tube cutter.....	Cutting soft tubing
302. Universal joint.....	Holding socket for angled turning
303. Universal socket.....	Socket used for angled turning
304. Valve spring compressor.....	Compressing valve spring for removal and insertion
305. Water breaker.....	Reduces the impact of water on soil and plants
306. Welding gloves.....	Protects the welder's hands
307. Welding goggles.....	Protecting welder's eyes
308. Welding helmet.....	Protecting face and eyes from welding flash
309. Welding torch.....	Heating and fusing metal
310. Wheel puller.....	Removing wheel from axle
311. Wire brush.....	Cleaning metal
312. Wire strippers.....	Removing insulation from electrical wire
313. Wood chisel.....	Dressing and shaping wood
314. Wood mallet.....	Driving non-metallic objects
315. Wrecking bar.....	Ripping and prying

101	45° pipe elbow	140	Concrete float	179	Half round file
102	90° pipe elbow	141	Concrete screw	180	Hammer drill
103	90° street elbow	142	Coping saw	181	Hand compass
104	Abrasive chop saw	143	Countersink	182	Hand hoe
105	Adjustable wrench	144	Curry comb	183	Hearing protection
106	Air compressor/hose	145	Cutting torch	184	Hedge shears
107	Allen wrench	146	Deep socket	185	Hinge handle/flex handle
108	Angle grinder	147	Dehorner	186	Hitch pin
109	Animal clippers	148	Diagonal cutting pliers	187	Hoof knife
110	Aviation snips	149	Drench gun	188	Hoof rasp
111	Backpack sprayer	150	Drift punch	189	Hose bib
112	Ball peen hammer	151	Drill press vise	190	Impact driver
113	Balling gun	152	Duplex receptacle	191	Impact wrench
114	Bar clamp	153	Ear tagger	192	Implant gun
115	Bent nose pliers	154	Egg candler	193	Impulse sprinkler
116	Bolt cutters	155	Electrical multimeter	194	Increment borer
117	Bolt die	156	End cutting nippers	195	Jig saw
118	Bolt die stock	157	Engineer's hammer	196	Junction box
119	Bolt tap	158	Expansion shield	197	Lag screw
120	Bolt tap wrench	159	Extension	198	Laser level
121	Brick jointer	160	Eye bolt	199	Level
122	Brick trowel	161	Face shield	200	Line level
123	Butt hinge	162	Fecal loop	201	Locking pliers
124	C clamp	163	Fence pliers	202	Locking welding clamp
125	Carriage bolt	164	Fence staple	203	Long nose pliers
126	Castrator	165	Finishing nail	204	Lopping shears
127	Caulking gun	166	Flathead stove bolt	205	Machine bolt
128	Center punch	167	Flathead wood screw	206	Machinist's vise
129	Chalk line reel	168	Framing square	207	Mason hammer
130	Chipping hammer	169	Friction lighter	208	Mason level
131	Circuit breaker	170	Fuse puller	209	Masonry bit
132	Circular saw	171	Garden trowel	210	Masonry nail
133	Clinometer	172	Gate valve	211	Micrometer
134	Cold chisel	173	Glass cutter	212	Mill file / flat file
135	Combination square	174	Grafting tool	213	Miter saw
136	Combination wrench	175	Grease gun	214	Muzzle
137	Common nail	176	Groove joint pliers	215	Nail gun
138	Compression tester	177	Ground fault circuit interrupter (GFCI)	216	Nail hammer
139	Concrete finishing trowel	178	Hacksaw	217	Nail set

218	Nut driver	251	Roofing nail	284	Syringe
219	Obstruction wrench	252	Rotary tool	285	T bevel
220	Oil filter wrench	253	Round file	286	T hinge
221	Open end wrench	254	Roundhead stove bolt	287	Tape measure
222	Oscillating tool	255	Roundhead wood screw	288	Tattooing instruments
223	Pex coupling	256	Rubber mallet	289	Thickness gauge
224	Pex pinch clamp ring	257	Safety glasses	290	Three-way switch
225	Phillips screwdriver	258	Safety goggles	291	Tip cleaners
226	Pin punch	259	Scale stick	292	Tire chuck
227	Pipe bushing	260	Screw extractor	293	Tire gauge
228	Pipe cap	261	Secchi disc	294	Toggle bolt
229	Pipe coupling	262	Sheet metal screw	295	Torque wrench
230	Pipe nipple	263	Side cutting pliers	296	Torx screwdriver
231	Pipe plug	264	Single pole switch	297	Tree diameter tape
232	Pipe reducer	265	Sledge hammer	298	Tree planting hoe or bar
233	Pipe tee	266	Slip joint pliers	299	Triangular file
234	Pipe union	267	Slotted screwdriver	300	Try square
235	Pipe wrench	268	Snap ring pliers	301	Tube cutter
236	Piston ring compressor	269	Soil auger	302	Universal joint
237	Plumb bob	270	Soil thermometer	303	Universal socket
238	Pole pruner	271	Soil tube	304	Valve spring compressor
239	Portable drill	272	Soldering gun	305	Water breaker
240	Portable router	273	Solderless wire nut	306	Welding gloves
241	Portable sander	274	Spade bit	307	Welding goggles
242	Pressure gauge	275	Spark plug gauge	308	Welding helmet
243	Pruning saw	276	Spark plug socket	309	Welding torch
244	Pruning shears	277	Spark tester	310	Wheel puller
245	Putty knife	278	Speed square	311	Wire brush
246	PVC cutter	279	Stethoscope	312	Wire strippers
247	Reciprocating saw	280	Straight shank drill bit	313	Wood chisel
248	Regular socket	281	Strap hinge	314	Wood mallet
249	Respirator	282	Sweep net	315	Wrecking bar
250	Reversible ratchet	283	Switch box		

CDE# 105482

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This sheet is for demonstration and practice only. You must use a real scan sheet for actual competition.

Team Number	State	Last Name	First Name
0 0 0 0			
1 1 1 1	A	A A A A A A A A A A A A	A A A A A A A A
2 2 2 2	B	B B B B B B B B B B B B	B B B B B B B B
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6 6 6 6	F	F F F F F F F F F F F F	F F F F F F F F
7 7 7 7	G	G G G G G G G G G G G G	G G G G G G G G
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	K	K K K K K K K K K K K K	K K K K K K K K
	L	L L L L L L L L L L L L	L L L L L L L L
	M	M M M M M M M M M M M M	M M M M M M M M
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	Q	Q Q Q Q Q Q Q Q Q Q Q Q	Q Q Q Q Q Q Q Q
	R	R R R R R R R R R R R R	R R R R R R R R
	S	S S S S S S S S S S S S	S S S S S S S S
	T	T T T T T T T T T T T T	T T T T T T T T
	U	U U U U U U U U U U U U	U U U U U U U U
	V	V V V V V V V V V V V V	V V V V V V V V
	W	W W W W W W W W W W W W	W W W W W W W W
	X	X X X X X X X X X X X X	X X X X X X X X
	Y	Y Y Y Y Y Y Y Y Y Y Y Y	Y Y Y Y Y Y Y Y
	Z	Z Z Z Z Z Z Z Z Z Z Z Z	Z Z Z Z Z Z Z Z

Code
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9 9

Team Activity	Team	Ind.
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9 9 9 9		

Practicums (Judges)						
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1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	
2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	
3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	
4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	
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6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	
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9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	

Assessment and Solution									
1	A B C D	6	A B C D	11	A B C D	16	A B C D	21	A B C D
2	A B C D	7	A B C D	12	A B C D	17	A B C D	22	A B C D
3	A B C D	8	A B C D	13	A B C D	18	A B C D	23	A B C D
4	A B C D	9	A B C D	14	A B C D	19	A B C D	24	A B C D
5	A B C D	10	A B C D	15	A B C D	20	A B C D	25	A B C D

Placing Classes											
Place	Class									Place	
	1	2	3	4	5	6	7	8	9		
1	1234									1234	1
2	1243									1243	2
3	1324									1324	3
4	1342									1342	4
5	1423									1423	5
6	1432									1432	6
7	2134									2134	7
8	2143									2143	8
9	2314									2314	9
10	2341									2341	10
11	2413									24	

[illegible]

Name: _____ Chapter: _____ Contestant No. _____

Tool Identification Federation/Regional ID Scorecard

Tool 01	_____	Tool 21	_____
Tool 02	_____	Tool 22	_____
Tool 03	_____	Tool 23	_____
Tool 04	_____	Tool 24	_____
Tool 05	_____	Tool 25	_____
Tool 06	_____	Tool 26	_____
Tool 07	_____	Tool 27	_____
Tool 08	_____	Tool 28	_____
Tool 09	_____	Tool 29	_____
Tool 10	_____	Tool 30	_____
Tool 11	_____	Tool 31	_____
Tool 12	_____	Tool 32	_____
Tool 13	_____	Tool 33	_____
Tool 14	_____	Tool 34	_____
Tool 15	_____	Tool 35	_____
Tool 16	_____	Tool 36	_____
Tool 17	_____	Tool 37	_____
Tool 18	_____	Tool 38	_____
Tool 19	_____	Tool 39	_____
Tool 20	_____	Tool 40	_____

Tool ID Score: _____/80

Name: _____ Chapter: _____ Contestant No. _____

Tool Identification Federation/Regional Uses Scorecard

Use 01	_____
Use 02	_____
Use 03	_____
Use 04	_____
Use 05	_____
Use 06	_____
Use 07	_____
Use 08	_____
Use 09	_____
Use 10	_____
Use 11	_____
Use 12	_____
Use 13	_____
Use 14	_____
Use 15	_____
Use 16	_____
Use 17	_____
Use 18	_____
Use 19	_____
Use 20	_____
Use 21	_____
Use 22	_____
Use 23	_____
Use 24	_____
Use 25	_____

Tool Uses Score: _____/50