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.

<u>The Tool Identification Phase (80 points total and 40 minutes to complete)</u>

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

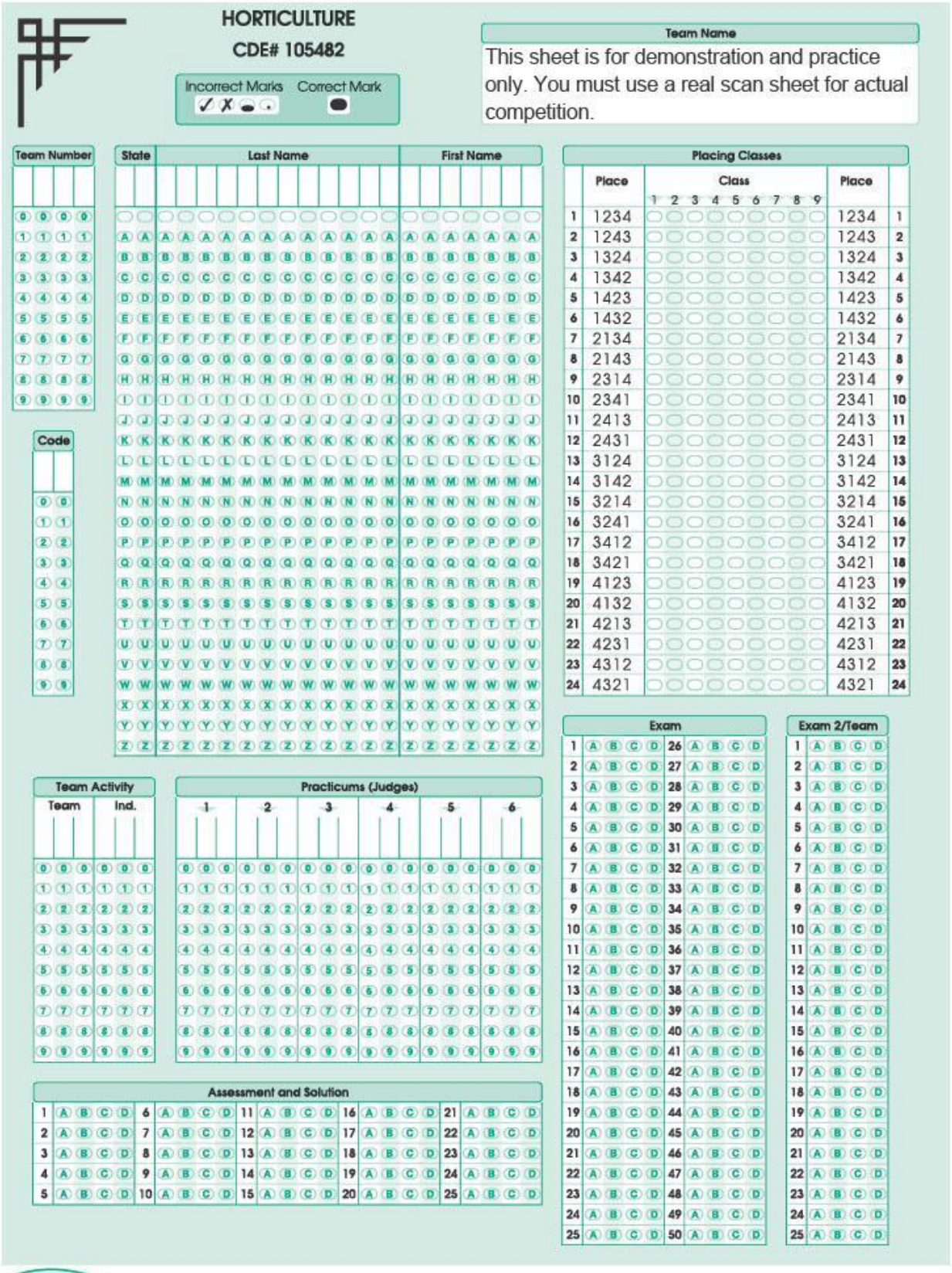
254.	Roundhead stove bolt	Fastening wood or metal to metal with a screwdriver or wrench
255.	Roundhead wood screw	Fastening wood to wood
256.	Rubber mallet	Hammering to avoid marring surface
257.	Safety glasses	Protecting eyes from the impact of foreign objects
258.	Safety goggles	Protecting eyes from 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

Official Tools and Materials Identification List

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			



HORTICULTURE

CDE# 105482

Incorrect Marks ✓ ✗ Correct Mark

Team Name

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

Code

Placing Classes

	Place	Class 1 2 3 4 5 6 7 8 9	Place	
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		2413	11
12	2431		2431	12
13	3124		3124	13
14	3142		3142	14
15	3214		3214	15
16	3241		3241	16
17	3412		3412	17
18	3421		3421	18
19	4123		4123	19
20	4132		4132	20
21	4213		4213	21
22	4231		4231	22
23	4312		4312	23
24	4321		4321	24

Team Activity

Team	Ind.

Practicums (Judges)

1	2	3	4	5	6

Exam

1	A	B	C	D	26	A	B	C	D
2	A	B	C	D	27	A	B	C	D
3	A	B	C	D	28	A	B	C	D
4	A	B	C	D	29	A	B	C	D
5	A	B	C	D	30	A	B	C	D
6	A	B	C	D	31	A	B	C	D
7	A	B	C	D	32	A	B	C	D
8	A	B	C	D	33	A	B	C	D
9	A	B	C	D	34	A	B	C	D
10	A	B	C	D	35	A	B	C	D
11	A	B	C	D	36	A	B	C	D
12	A	B	C	D	37	A	B	C	D
13	A	B	C	D	38	A	B	C	D
14	A	B	C	D	39	A	B	C	D
15	A	B	C	D	40	A	B	C	D
16	A	B	C	D	41	A	B	C	D
17	A	B	C	D	42	A	B	C	D
18	A	B	C	D	43	A	B	C	D
19	A	B	C	D	44	A	B	C	D
20	A	B	C	D	45	A	B	C	D
21	A	B	C	D	46	A	B	C	D
22	A	B	C	D	47	A	B	C	D
23	A	B	C	D	48	A	B	C	D
24	A	B	C	D	49	A	B	C	D
25	A	B	C	D	50	A	B	C	D

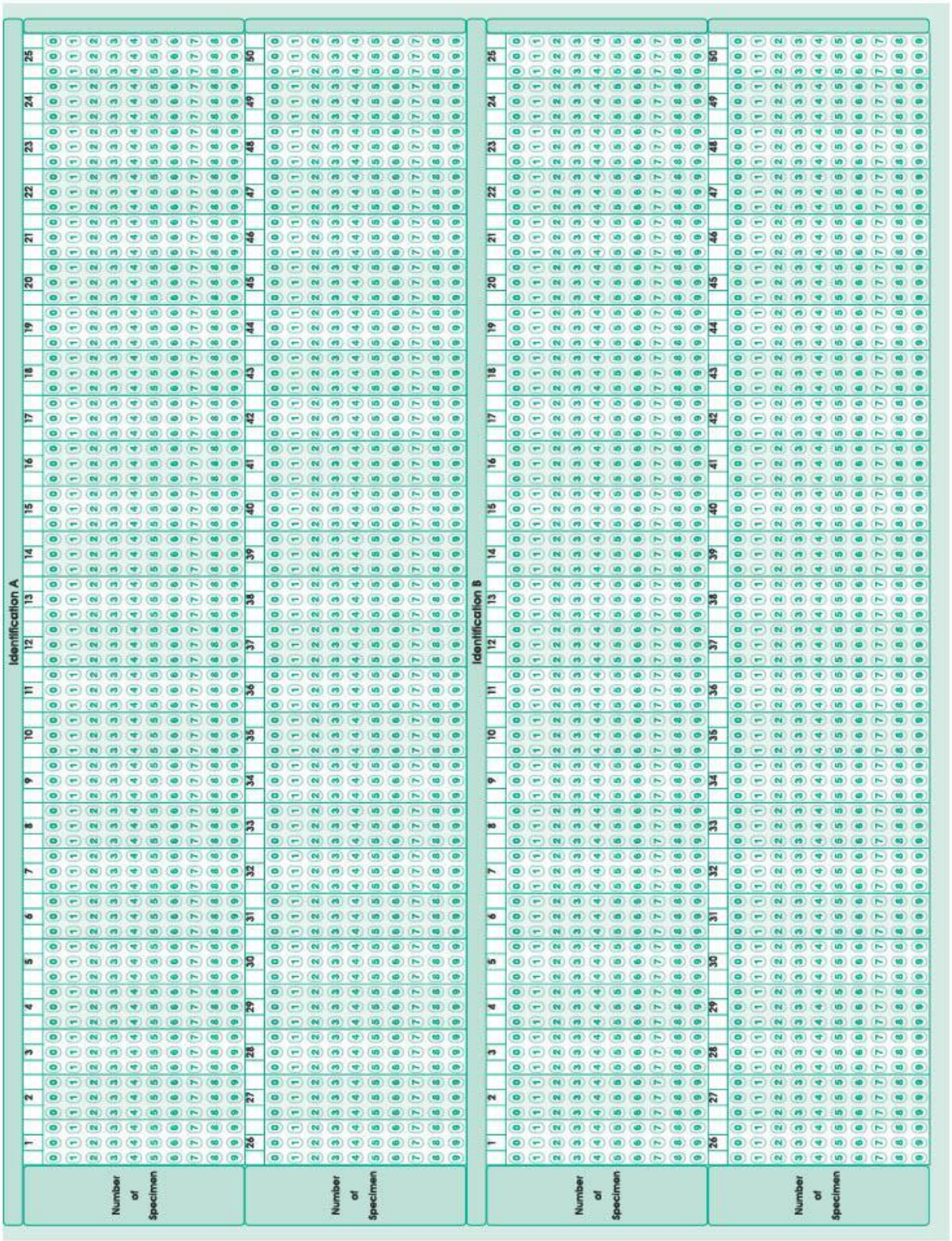
Exam 2/Team

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

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

SCANTRON. Mark Reflex® EM-105482-3:654321 ED04


Identification A
Number of Specimen
Identification B
Number of Specimen

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