

# Breed and Terminology ID

## 50 Points

Teams must identify 10 breeds of animals from pictures and provide the correct term for five animals based on a picture.

ID #	Breed Name	ID #	Breed Name	ID #	Breed Name
	<b>Dairy Cattle</b>		<b>Meat Goats</b>		<b>Cats</b>
	Brown Swiss		Boar		Siamese
	Holstein		Kiko		Persian
	Jersey		Myotonic		American Shorthair
			Spanish		Ragdoll
	<b>Beef Cattle</b>				
	Angus		<b>Dairy Goats</b>		<b>Rabbits</b>
	Brahman		Alpine		Holland Lop
	Charolais		LaMancha		Mini Rex
	Hereford		Nubian		Netherland Dwarf
	Limousin		Toggenburg		
					<b>Dogs</b>
	<b>Pigs</b>		<b>Chickens</b>		Labrador Retriever
	Duroc		Cornish Cross		German Shepherd
	Hampshire		Barred Rock		Beagle
	Landrace		Orpington		Daschund
	Yorkshire		Rhode Island Red		French Bulldog
			Silkie		Poodle
	<b>Sheep</b>		White Leghorns		
	Dorset				
	Katahdin				
	Hampshire				
	Rambouillet				

Points Earned: Number Correct \_\_\_\_\_ X2.5 = \_\_\_\_\_/25

ID #	Term	ID #	Term	ID #	Term
	<b>Cattle</b>		<b>Swine</b>		<b>Poultry</b>
	Cow		Sow		Hen
	Heifer		Gilt		Pullet/Poult
	Bull		Boar		Rooster
	Steer		Barrow		Capon
	Calf		Piglet		Chick
	<b>Sheep</b>		<b>Goat</b>		
	Ewe		Doe		
	Ewe Lamb		Doe Kid		
	Ram		Buck		
	Wether		Wether		
	Lamb		Kid		

Points Earned: Number Correct \_\_\_\_\_ X5 = \_\_\_\_\_/25

Total Points: \_\_\_\_\_/50

# Ear Notching Practicum

50 Points

Teams will ear notch a pig with the provided litter number and individual pig number. The rubric will be used to score the team.

Qualification	Very strong evidence of skill (5–4 pts)	Moderate evidence of skill (3–2 pts)	Weak evidence of skill (1–0 pts)	Points Earned	Weight	Total Score
Placement	All notches are in the correct positions.	Notches are generally in the correct place but might be shifted close to another portion of the ear.	Significant errors in notch placement.		X3	
Numerical Accuracy	Both the litter number and individual pig number are accurate and on the correct ears.	The litter number and individual pig number are correct but are on the wrong ears.	The litter number and individual pig number are inaccurate/incomplete.		X3	
Clarity	The physical notches are clear and well-defined with no ambiguity.	Notches lack clarity but are still discernable. Notches might overlap or are crooked.	The notches are not clear at all and are impossible to read accurately.		X2	
Use of Notching Tool	Tool was used properly, and notches are the correct size.	Tool was used properly, and notches are mostly the correct size.	The tool was used incorrectly or sloppily, and notches are not the correct size.		X2	
TOTAL POINTS						



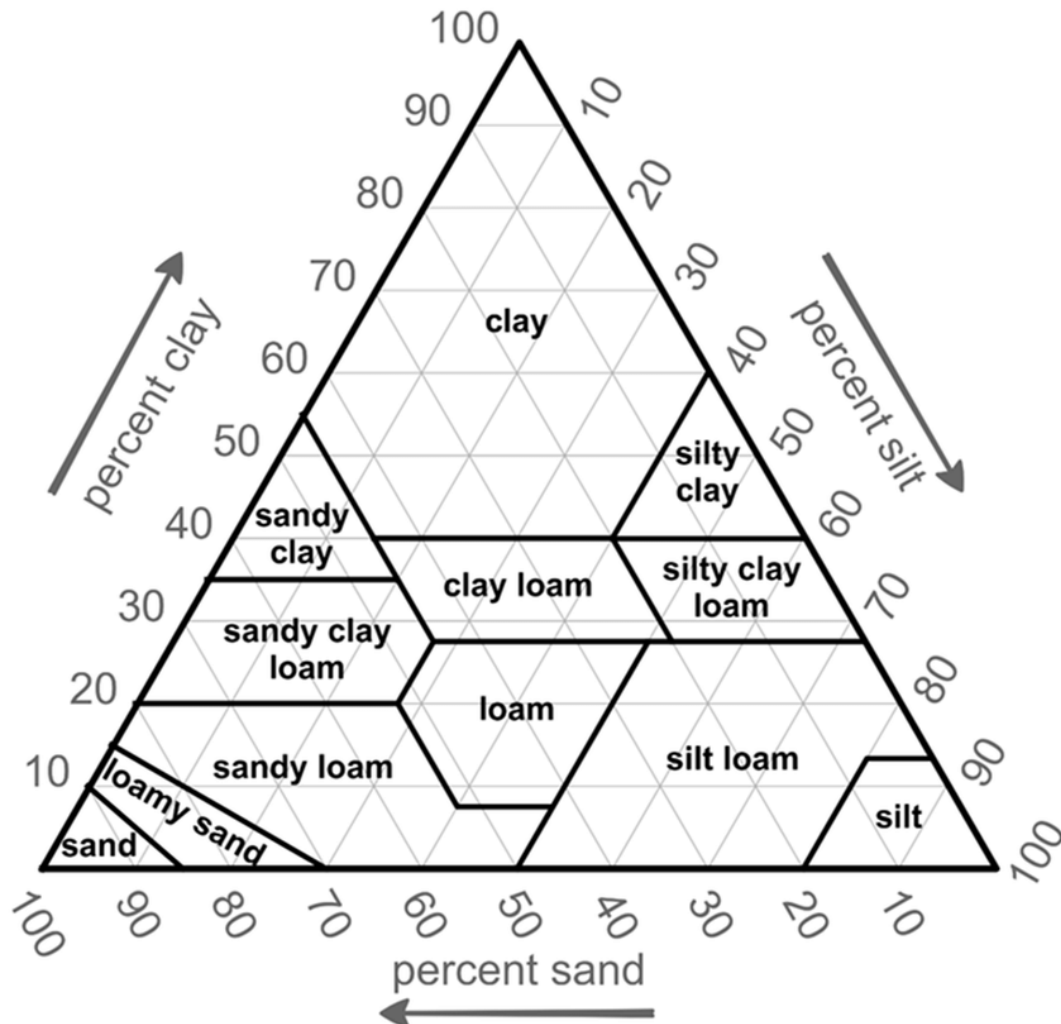
# Soil Texture Triangle Practicum

50 Points

Teams must use the soil texture triangle to categorize five soils.

Type of Soil	Soil 1	Soil 2	Soil 3	Soil 4	Soil 5
Sand					
Loamy Sand					
Sandy Loam					
Sandy Clay Loam					
Sandy Clay					
Clay					
Clay Loam					
Loam					
Silty Clay					
Silty Clay Loam					
Silt Loam					
Silt					

Number Correct \_\_\_\_\_ X 10 = \_\_\_\_\_/50 points



# Tree Identification Practicum

50 Points

Teams must identify 10 trees from the provided list.

Tree #	Common Name	Scientific Name
	Ash	<i>Fraxinus sp.</i>
	Bald Cypress	<i>Taxodium distichum</i>
	Beech	<i>Fagus americana</i>
	Birch	<i>Betula nigra</i>
	Black Cherry	<i>Prunus serotina</i>
	Blackgum	<i>Nyssa sylvatica</i>
	Cottonwood	<i>Populus deltoides</i>
	Dogwood	<i>Cornus florida</i>
	Elm	<i>Ulmus sp.</i>
	Hemlock	<i>Tsuga Canadensis</i>
	Hickory	<i>Carya sp.</i>
	Loblolly Pine	<i>Pinus taeda</i>
	Longleaf Pine	<i>Pinus palustris</i>
	Northern Red Oak	<i>Quercus rubra</i>
	Pecan	<i>Carya illioinensis</i>
	Persimmon	<i>Diospyros virginiana</i>
	Post Oak	<i>Quercus stellata</i>
	Red Cedar	<i>Juniperus virginiana</i>
	Red Maple	<i>Acer rubrum</i>
	Redbud	<i>Cercis canadensis</i>
	Shortleaf Pine	<i>Pinus echinata</i>
	Sourwood	<i>Oxydendrum arboreum</i>
	Southern Red Oak	<i>Quercus falcata</i>
	Sugar Maple	<i>Acer saccharum</i>
	Sweetgum	<i>Liquidambar styraciflua</i>
	Sycamore	<i>Plantanus sp.</i>
	Virginia Pine	<i>Pinus virginiana</i>
	White Oak	<i>Quercus alba</i>
	White Pine	<i>Pinus strobus</i>
	Yellow Poplar	<i>Liriodendron tulipifera</i>

Number Correct \_\_\_\_ X 5 = \_\_\_\_/50 points

# Water Quality Practicum

## 50 Points

Teams must use the provided dichotomous key to identify three macroinvertebrates and from that identification, determine the water quality of the sample of water the macroinvertebrates are from.

### SPECIMEN ID

Specimen 1: \_\_\_\_\_

Specimen 2: \_\_\_\_\_

Specimen 3: \_\_\_\_\_

Number correct \_\_\_\_\_ x 10 = \_\_\_\_\_/30 points

### WATER QUALITY RATING

Circle the correct Water Quality Rating. The correct answer is worth 20 points.

Very Low Pollution

Low Pollution

Somewhat Polluted

Very Polluted

### TOTAL POINTS CALCULATION

Specimen ID \_\_\_\_\_/30

+

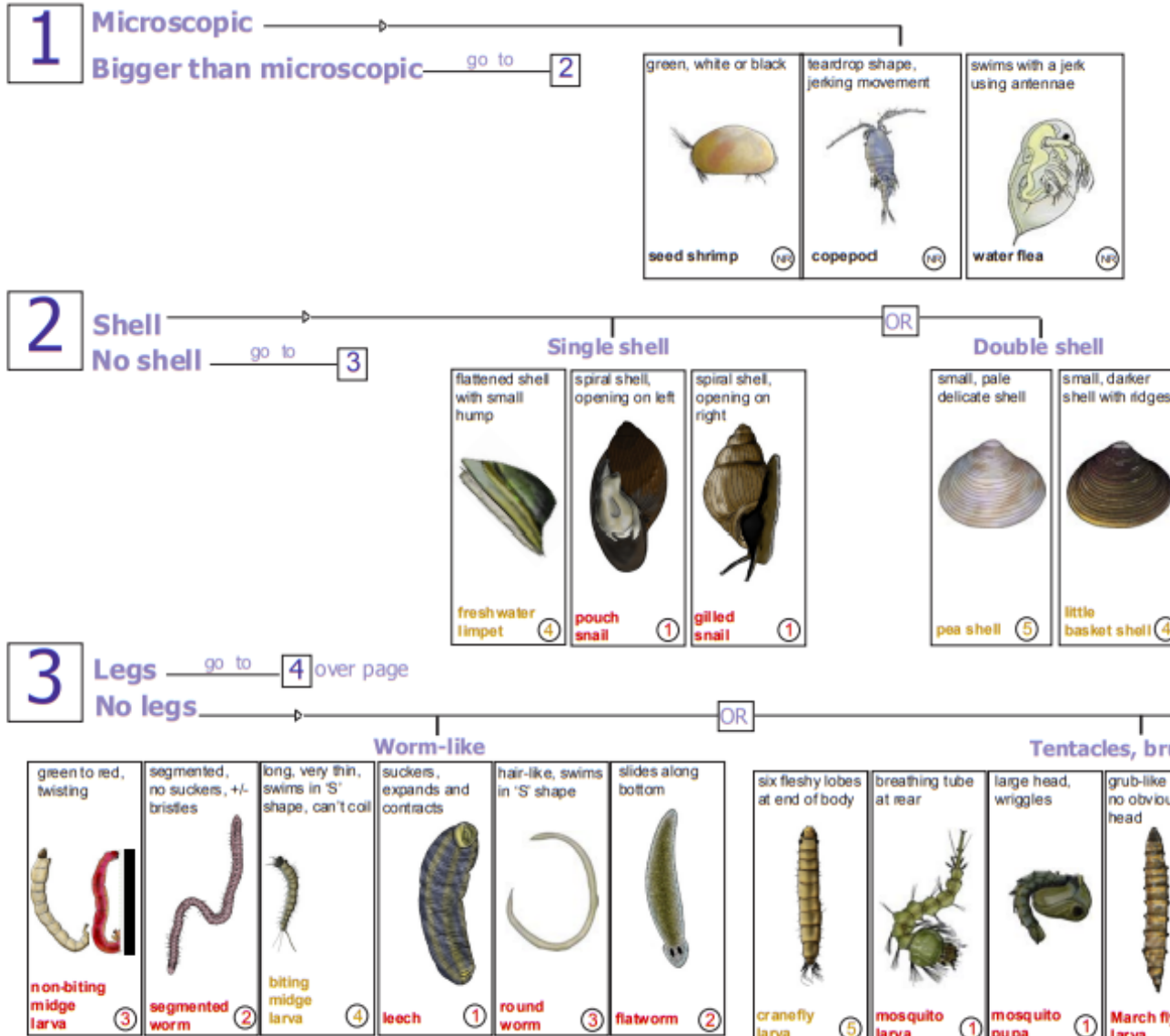
Water Quality Rating \_\_\_\_\_/20

=

**Total Points** \_\_\_\_\_/50



# Aquatic macroinvertebrate identification key



## Pollution sensitivity\*:

(N/R)	not rated
(10)–(8)	very sensitive
(7)–(6)	sensitive
(5)–(4)	tolerant
(3)–(1)	very tolerant

## Acknowledgements

This key was designed by Ron Simms and Amy Blaylock, 2002.

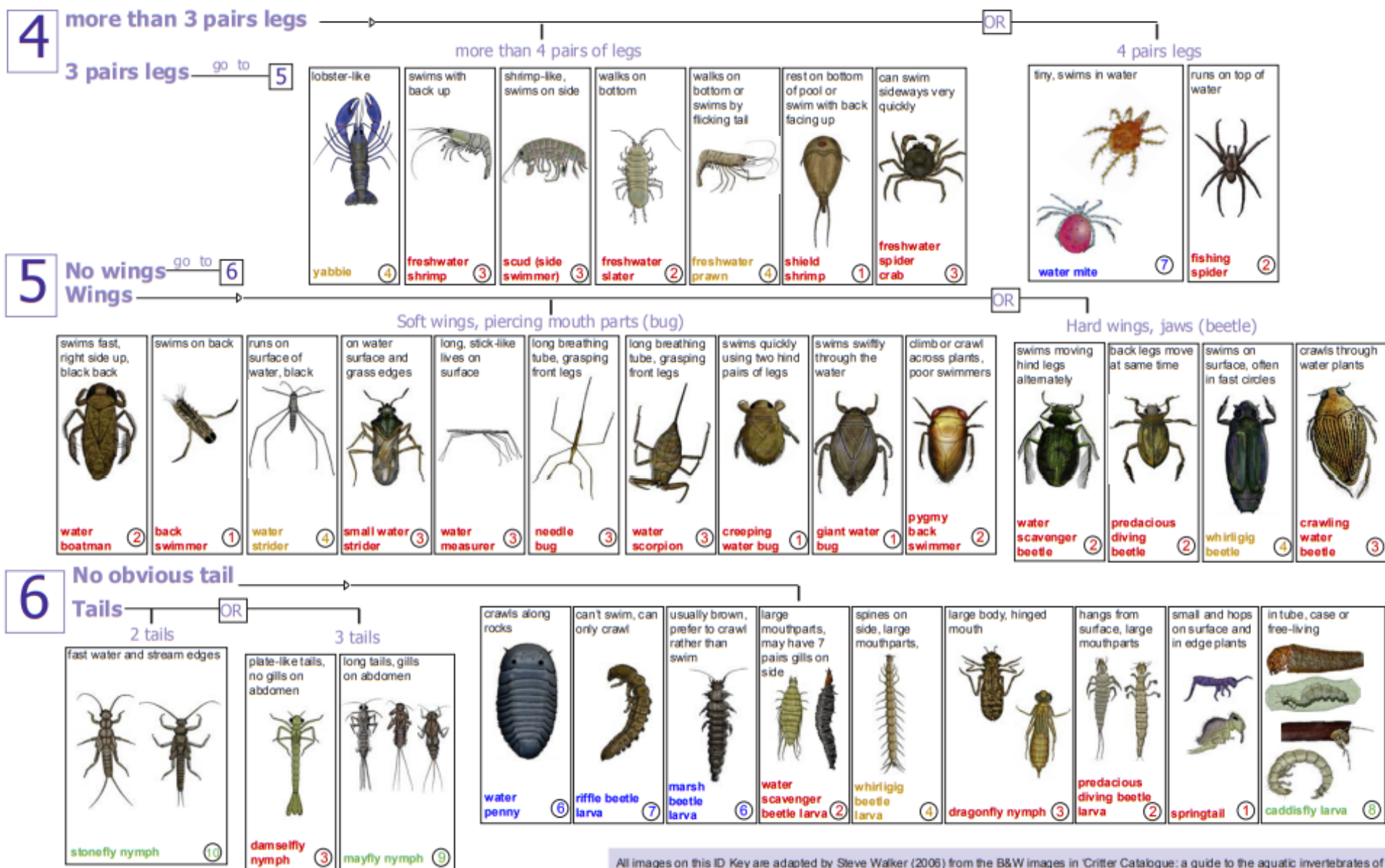
Adapted by Steve Walker, 2011.

Assistance was kindly provided by the following staff members of the South Australian Museum: Dr. Errol Matthews, Dr. Chris Watts and Mr Robert Hamilton-Bruce.

\*Sensitivity ratings from SIGNAL2 system in "New sensitivity grades for Australian river macroinvertebrates." Bruce C. Chessman. Marine and Freshwater Research. 2003. 54. 95-103.







All images on this ID Key are adapted by Steve Walker (2006) from the B&W images in 'Critter Catalogue: a guide to the aquatic invertebrates of South Australian inland waters (2004 EPA)' except for the crawling water beetle (Steve Walker 2006).

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# Aroma Identification

50 Points

Teams will identify 10 aromas.

Aroma #	Aroma Name
	Apple
	Basil
	Cherry
	Cinnamon
	Clove
	Garlic
	Ginger
	Grape
	Licorice (anise)
	Maple
	Molasses
	Onion
	Oregano
	Peach
	Peppermint
	Sage
	Smoke (liquid)
	Strawberry
	Vanilla
	Watermelon

Number Correct \_\_\_\_\_ X 5 = \_\_\_\_\_/50 points

# Nutrition Problem Practicum

50 Points

Teams will calculate the calories per serving of a provided recipe. Nutrition labels for each ingredient will be provided. Math will be evaluated using the rubric below.

Qualification	5 Points	3 Points	0 Points	Points Earned	Weight	Total Score
Calculation of Total Calories in Recipe	Calculation is 100% accurate.	Calculation is up to $\pm 100$ calories off.	Calculation is $\pm 101$ or more calories off.		X4	
Calculation of Calories per Serving	Calculation is 100% accurate.	Calculation is up to $\pm 25$ calories off.	Calculation is $\pm 26$ or more calories off.		X4	
Work Is Shown	All steps in calculations are shown.	Most work is shown but some steps are skipped.	Most work is not shown and several steps are skipped.		X2	
TOTAL POINTS						

# Food Science Triangle Test Practicum

50 Points

Teams must conduct two triangle tests on the given samples. Select the odd or different sample from each based on smell, taste, texture or color. Circle the letter that represents the odd or different sample for each triangle test.

## Triangle Test 1 (25 points)

A                      B                      C

## Triangle Test 2 (25 points)

A                      B                      C

Participants Score = Number Right \_\_\_\_ X 25 = \_\_\_\_\_

# Food Science Triangle Test Practicum

50 Points

Teams must conduct two triangle tests on the given samples. Select the odd or different sample from each based on smell, taste, texture or color. Circle the letter that represents the odd or different sample for each triangle test.

## Triangle Test 1 (25 points)

A                      B                      C

## Triangle Test 2 (25 points)

A                      B                      C

Participants Score = Number Right \_\_\_\_ X 25 = \_\_\_\_\_

# Flower Parts Identification

50 Points

Teams will identify five parts of a flower.

Plant Part #	Plant Part
	Anther
	Filament
	Ovary
	Peduncle
	Petal
	Pistil
	Receptacle
	Sepal
	Stamen
	Stigma
	Style

Number Correct \_\_\_\_\_ X 10 = \_\_\_\_\_/50 points

# Soil Media Identification

50 Points

Teams will identify 10 types of growing media.

Growing Media #	Type of Growing Media
	Aged Pine Bark
	Clay Pebbles (Hydroton/Hydrocorn)
	Coco Coir/Fiber/Chips
	Gravel
	Grow Stones
	Oasis Cubes
	Peat Moss
	Perlite
	Phenolic Foam
	Pine Shavings
	Pumice
	Red Ash (Scoria)
	Rice Hulls
	Rooting Plugs/Starter Plugs
	Sand
	Soil
	Stone Wool (Rockwool)
	Vermiculite
	Water Absorbing Crystals
	Wood Fiber/Chips

Number Correct \_\_\_\_\_ X 5 = \_\_\_\_\_/50 points