

# Aquatic Ecology & Sport Fishing

**Superintendent: Open**

**Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

## Project Display

1. The exhibit may be a poster or a three-dimensional display.
2. Exhibits may include pictures, models, diagrams and actual articles if they qualify for the safety standards listed below.
3. Drawings or photos which are an essential part of the display should be firmly attached to the board.
4. Loose materials like soil, bark or sand must be displayed in closed containers.
5. No books or notebooks will be accepted as part of the display.
6. The following materials will not be allowed on the display for safety reasons: Living organisms-plants or animals, liquids, Aerosol bottles or other pressurized gases, Glass, Hazardous substances, or Sharp items.
7. Each exhibit must have name, county and class number securely attached to it.
8. All parts of the display should be attached to one another in some way to keep the exhibit together as a unit.
9. All information contained in the exhibit must be able to be viewed by the public by looking at the display. Sources must be listed on the front of the display.
10. Display (all parts) should be able to last the duration of the fair in good repair.
11. Individual posters are limited in size to 30" by 24". Individual three-dimensional displays are limited in size to 48" wide (measured when lying flat), 24" deep (front to back), and 36" high.
12. Club exhibits are to be entered under the club name but must include the names of all members and leaders. This may be on a separate paper securely attached to the back of the exhibit. Club exhibits are limited in size to 60" wide, 24" deep and 36" high. The weight of any display cannot exceed 30 pounds

**451 200 171 Aquatic Ecology & Angler Education Project Display, Junior**

**451 200 172 Aquatic Ecology & Angler Education Project Display, Intermediate**

**451 200 173 Aquatic Ecology & Angler Education Project Display, Senior**

**451 200 174 Aquatic Ecology & Angler Education Project Display, Club**

## Aquatic Macro-Invertebrate Specimens

Macro-invertebrates, regardless of developmental stage, serve as an energy source in fresh water (lakes, ponds, streams, rivers) fisheries. They include but are not limited to: eggs, larvae, nymphs, scuds, leeches, stoneflies, caddis flies, mosquitoes, dragonflies, hellgrammites, etc.

1. Specimen photos or drawings of specimens may be displayed in a three ring binder. Photos and drawings must be the original work of the exhibitor.
2. Preserved specimens are to be displayed in specimen jars in display boxes.
3. Each specimen, including photos or drawings, requires a label be affixed to the display box or page for easy reading. Labels (3/4"x1 1/2") on preserved specimens, photos or drawings are to include the name of the collector, date collected/photographed/drawn, order name, common name, name of body of water from which specimen was found, county and state.

### Label Example:

Collector/Date: J. Smith 01/01/01

Order Name: Ephemeroptera

Common Name/Stage: Mayfly Adult or Nymph

Body of Water: Lost Lake

County/State: Hood River, OR

4. Phases are based on the number of specimens exhibited. Each collection is progressive. Exhibitors are expected to add 5 new preserved specimens, photographs, or drawings to their exhibit each year, in addition to those exhibited the previous year. Exhibitors are not able to combine preserved specimens, photographs, or drawings as a single exhibit.
5. Judging criteria are outlined on an Aquatic Macro-invertebrates Score Sheet (451-01, revised 2014), available at the county Extension office or on the State 4-H website.

### Phase 1 Members display 10 to 20 specimens.

**451 100 181** Preserved specimens displayed in specimen jars in display boxes

**451 200 181** Photographs of specimens displayed in a notebook

**451 300 181** Original Drawings of specimens displayed in a notebook

### Phase 2 Members display 21 to 35 specimens.

**451 100 182** Preserved specimens displayed in specimen jars in display boxes

**451 200 182** Photographs of specimens displayed in a notebook

**451 300 182** Original Drawings of specimens displayed in a notebook

### Phase 3 Members display 36 to 50 specimens.

**451 100 183** Preserved specimens displayed in specimen jars in display boxes

**451 200 183** Photographs of specimens displayed in a notebook

**451 300 183** Original Drawings of specimens displayed in a notebook

## Common Knots

Knots are defined as those needed to secure line from a reel to terminal tackle. They are limited to Arbor Knot, Blood Knot, Dropper Loop, Clinch or Improved Clinch Knot, Nail Knot, Palomar Knot, Perfection Loop, Rapala Knot, Snell Knot, Double Surgeon's, Surgeon's Loop, Trilene Knot, Uni-Knot.

1. Each knot must be represented in two mediums. One (large scale) knot must be tied using white cordage no smaller than 1/8" and no larger than 1/4" in diameter. The (normal scale) second knot is to be tied to a barbless hook using the appropriate material as it would be used in fishing (monofilament, Dacron backing, fly line, etc.)
2. Knots must be labeled with name and displayed on an 8.5" X 11" matte board.
3. Judging criteria are outlined on a Common Knots Score Sheet (451-02, revised 2014) available at the county Extension office or on the State 4-H website.

**451 200 151 Common Knots**, Junior, any 5 knots (each knot represented in large and normal scale).

**451 200 152 Common Knots**, Intermediate, any 7 knots (each knot represented in large and normal scale).

**451 200 153 Common Knots**, Senior, any 9 knots (each knot represented in large and normal scale).

## Fish Prints

1. Prints can be made using real fish or fish models. Non-fish images are not acceptable.
2. Prints can be made using, but not limited to water color, tempera, acrylic, oil, and ink.
3. Prints can be on fabric or paper or in combination and mounted on or in a frame not to exceed 22" x 28".
4. One print must be labeled with the common name, scientific name, and anatomy. Labels may be permanent or removable.
5. Judging criteria are outlined on a Fish Prints Score Sheet (451-03, revised 2014) available at the county Extension office or on the State 4-H website.

**451 200 161 Fish Prints**, Junior, 1 print.

**451 200 162 Fish Prints**, Intermediate, 2 prints.

**451 200 163 Fish Prints**, Senior, 3 prints.

## Flies

Flies are defined as wet and dry. Dry flies are patterns used above the water line or in the surface film (e.g. adult insects, terrestrial insects, dry attractors, poppers, mouse, etc.). Wet flies are patterns used below the water line (e.g. nymphs, larvae, streamers, wet attractors, emergers, etc.).

1. Materials (recipes) used may include but are not limited to: hackle, lead wire, dubbing, hook, copper wire, flash, quill, floss, chenille, thread, and hair.

2. Entries may include but are not limited to: \* Woolly Worm, Woolly Bugger, Hare's Ear, Scud, Caddis Pupa, Girdle Bug; \*\* Mickey Finn, Elk Hair Caddis, Bead Head Pheasant Tail,
3. Parachute Adams; \*\*\* Royal Coachman, Grass Hopper, Stone Fly, Blue Winged Olive, Green Drake.
4. Flies must be labeled with name and displayed on an 8.5"x11" matte board. (\*=low difficulty, \*\*=moderate difficulty, \*\*\*=high difficulty)
5. Flies must be displayed on an 8.5" x 11" matte board. Exhibits are to be labeled to provide educational value to the public. Labels must include a title, the type of flies (wet or dry), and the name of each fly. Exhibit labels will be judged on the educational value, accuracy, completeness, clarity, and conciseness.
6. Judging criteria are outlined on a Flies Score Sheet (451-04, revised 2014) available at the county Extension office or on the State 4-H website.

**451 200 131 Flies**, Junior, 2 total (1 wet and 1 dry) use recipes requiring #4-6 hook.

**451 200 132 Flies**, Intermediate, 4 total (2 wet and 2 dry) use recipes requiring #6-8 hook.

**451 200 133 Flies**, Senior, 6 total (2 wet, 2 dry, and 2 using body dubbing) use recipes requiring #8-14 hook, 2 using body dubbing and recipes requiring #12-14 hook.

## Lures

Lures are defined as Spoons, Spinners, Rooster Tails, Jigs, Plugs, and Spinner Baits.

1. Materials used may include but are not limited to the following:
  - a. **Spoons**: metal body, split ring, hook, weed guard, thin spoon, heavy spoon, thick solid, and spinner blades.
  - b. **Spinners**: hook, body, beads, clevis, blade, plastic minnow, spinner used with bait.
  - c. **Rooster Tails**: hook, blade, beads, feather skirt, hair skirt, rubber skirt, body, clevis, Colorado blade, willow blade.
  - d. **Jig**: eye, assorted jig lead head, hook, feathered skirt, fur skirt, hair skirt, rubber skirt.
  - e. **Plugs**: metal lip, hook hanger, eye, body, hooks, propellers, joined plug, plug lip.
  - f. **Spinner Bait**: fluted blade, hook, Colorado blade, clevis, arm, body, skirt, eye, twin arms and blades.
2. Lures must be labeled and displayed on an 8.5"x11" matte board or foam.
3. The entries must be accompanied by a 4-H Aquatic Ecology & Sport Fishing Explanation Card (451-07, revised 2014) available on the state 4-H website.

**451 200 141 Lures, Junior**, 1 Spoon plus 1 additional choice.

**451 200 142 Lures, Intermediate**, 1 Spoon, 1 Spinner, and 2 additional choices.

**451 200 143 Lures, Senior**, 1 Spoon, Spinner, 1 Rooster Tail, and 3 additional choices.

## Fishing Rods

Based on the type of rod, the necessary components include rod blank, butt cap/extension, handle/grip, reel seat, hook keeper, butt/stripping guide, appropriate number of line guides for length, guide wraps, ferrules, and tip top.

1. Fishing rods must be constructed by the member and may not exceed 108" in length.
2. The rods must be displayed on a board no thicker than 1 inch, no wider than 8 inches, no longer than 120 inches (1" x 8" x 120" maximum).
3. All necessary components must be labeled. Permanent or removable labels may be used.
4. The entries must be accompanied by a 4-H Aquatic Ecology & Sport Fishing Explanation Card (451-07, revised 2014) available on the state 4-H website.

**451 200 101 Spinning Rod, Junior, one piece**

**451 200 102 Spinning Rod, Intermediate, two piece**

**451 200 103 Spinning Rod, Senior, three or four piece**

**451 200 111 Bait Casting Rod, Junior, one piece**

**451 200 112 Bait Casting Rod, Intermediate, two piece**

**451 200 113 Bait Casting Rod, Senior, three or four piece**

**451 200 121 Fly Rod, Junior, one piece**

**451 200 122 Fly Rod, Intermediate, two piece**

**451 200 123 Fly Rod, Senior, three or four piece**

# Conservation

**Superintendent: Open**

**Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

1. Open to all 4-H members regardless of project enrollment.
2. Each exhibit piece must be labeled with the member's name, county and class number.
3. Exhibit: An educational exhibit relating to conservation of soil, water, forests, marine life, range, or wildlife. May not exceed 30" in width, 24" deep (front to back) and 36" high.
4. Judging criteria are outlined on 4-H Educational Poster/Display Score Sheet (40-463) available at the county Extension office or on the State 4-H website.

**Note: Fill in blank in class number (\_\_) with corresponding number for Junior, Intermediate or Senior.**

**1 Junior Second and Third Year**

**2 Intermediate**

**3 Senior**

**4 Club (two or more members working together)**

**411 200 011 Conservation, Junior, First Year Member**, an educational exhibit relating to conservation of soil, water, forests, marine life, range, amphibians or wildlife.

**411 200 02\_ Conservation**, an educational exhibit relating to conservation of soils and range.

**411 200 03\_ Conservation**, an educational exhibit relating to conservation of water and marine life.

**411 200 04\_ Conservation**, an educational exhibit relating to conservation of forest and wildlife.

**411 200 05\_ Conservation**, an educational exhibit relating to conservation and ecology of of native amphibians and reptiles

# Entomology

Superintendent: Open

## Judging occurs the Saturday before Summer Fair in July

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

1. Each exhibit piece must be labeled with the member's name, county and class number.
2. New Junior, Intermediate or Senior members, who are exhibiting in entomology for the first time, are required to exhibit 10 insect specimens from at least 8 orders. The insects must be collected in the current project year. New Junior, Intermediate or Senior members will exhibit in class 821 100 000. The former First Year Junior class is now exhibited in class 821 100 000.
3. At least 10 insects of the total displayed in all classes must be collected in the current year. For Second and Third year Junior exhibits indicate the 10 plus new insects collected in the current project year with an \* or a small dot near the new insects.
4. Intermediate and Senior members in any class are to number each new specimen in the collection. Write on the liner or attach a sticker next to each new insect indicating the specimen number. Old specimens are not numbered.
5. Additional information and tips on preparing an insect display for fair are posted on the Oregon 4-H Entomology web page at Unit 4, Labeling and Displaying.
  - a. An Information on New Insects in Collection for Current 4-H Project Year sheet is required to be submitted with Intermediate and Senior insect collections. This sheet should be completed only for the 10 plus new insects collected in the current project year. Attach the completed sheets to the bottom of the collection box in an unsealed envelope for the judge to read at fair. Label the envelope with the member's name, county and the class #. The form is available on line at the bottom of the Entomology section at this link <https://extension.oregonstate.edu/4h/natural-science-projects#entomology>.
6. Judging will be based on condition of specimens, mounting, labeling, attractiveness, correct number of specimens, correct identification and educational value of exhibit.
7. Additional information is found in the Entomology Project Manual (4H3221L July 1995) on line. Judging criteria are outlined on the Entomology Exhibit Score Card (821-01), available at the county Extension Office or on the State 4-H website.
8. Some of the orders have changed in Entomology by combining old orders or making new ones. Be sure to use the current order names for the insects check with the Extension office or go to the State 4-H website. **Recommended reference for entomology orders** for labels of specimens, *Borror and DeLong's Introduction to the Study of Insects 7th Edition* written by Charles A. Triplehorn and Norman F. Johnson. In the event of a discrepancy this reference will be considered the correct information source.

**821 100 000 Entomology, New Junior, Intermediate or Senior**, 10 insects, from at least 8 orders.

**821 100 021 Entomology, Junior Second and Third Year**, 20 insects, from at least 10 orders.

**821 100 022 Entomology, Intermediate**, 20 to 30 insects, from at least 12 orders.

**821 100 023 Entomology, Senior Other**, 20 to 50 insects from at least 15 orders.

## Other Entomology Exhibits

1. Each exhibit piece must be labeled with the member's name, county and class number.
2. First year exhibitors in an exhibit category may use insects collected in previous years. Succeeding years' exhibits in the same exhibit category must include some insects collected in the current year.
3. Judging will be based on condition of specimens, mounting, labeling, including correct spelling of names, attractiveness, correct number of specimens, correct identification and educational value of exhibit. For those not applicable, such as insect plant damage and life histories, they may be mounted as Riker mounts. Follow instructions on page 18 in the 4-H Entomology Manual (4-H 3221) for Riker mounts.
4. Collections should be labeled to explain their educational value and will be judged based on the scoring used for entomology exhibits Entomology Exhibit Score Card (40-605) and Educational Display check sheet (40-463) available from the county Extension office or on the state 4-H website. Size dimensions are 30" wide, 24" deep, 36" high. Include explanation to the judge as outlined under Educational Display in fair book.
5. Some of the orders have changed in Entomology by combining old orders or making new ones. To be sure of the correct current order names for the insects in the collection, check with the Extension office or go to the website for the updated "Insect Orders, Meanings, Common Names".
6. **Recommended reference for Entomology orders** for identification of specimens, *Borror and DeLong's Introduction to the Study of Insects 7th Edition* written by Charles A. Triplehorn and Norman F. Johnson. In the event of a discrepancy this reference will be considered the correct information source

**Note: Fill in blank in class number ( ) with corresponding number for Junior, Intermediate or Senior.**

**1 Junior** (10 to 20 different insects)

**2 Intermediate** (15 to 35 different insects)

**3 Senior** (no more than 50 different insects)

**4 Club** (two or more members working together)

**821 100 511 Other Entomology Exhibits**, First Year Junior Member, exhibit 10 to 20 different insects in the categories of beneficial insects, harmful insects, insects attracted to lights, soil insects, aquatic insects, forest insects, specialize in an insect order, garden insects, insect plant damage (Riker mount) or other educational display.

**821 100 52\_ Other Entomology Exhibits**, exhibit in categories of Insects attracted to lights; Garden insects; or Beneficial insects (e.g., pollinators or predators) NOTE:



Honeybee topics should be entered as a Honeybee Exhibit; please see the exhibit description in the following section.

- 821 100 53\_ Other Entomology Exhibits**, exhibit in categories of Harmful insects (e.g., parasite, pest or disease); Insects plant damage (Riker mount); Specialize in an insect order
- 821 100 54\_ Other Entomology Exhibits**, exhibit in categories of Soil insects; Forest insects; Aquatic insects
- 821 100 55\_ Other Entomology Exhibits**, size: 30" wide, 24" deep (front to back) and 36" high. Examples could include experiments, surveys, photographs, life histories, purchased insects, etc.
- 821 100 56\_ Other Entomology Exhibits**, Spiders and other insect relatives exhibit. Exhibit can include a collection of spiders, centipedes, millipedes, ticks, mites, scorpions or a combination of insect relatives and/or an educational display about them. Examples for a display could include experiments, surveys, photographs, life histories, etc. Live spiders or insect relatives may not be displayed. Specimen Collections should be a collection of identified labeled specimens in alcohol bottles fastened into a box. Exhibitors making a collection using alcohol bottles should follow the guidelines for insect specimens in the entomology manual. Educational displays may not exceed 30" in width, 24" deep (front to back), and 36" high.

# Forestry

**Superintendent: Open**

**Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

1. Junior, Intermediate and Senior members may make one or more exhibits - one mounted as a Forestry Specimen and one in each qualified Advanced Forestry exhibit class. Please refer to the 4-H Forestry Exhibit Requirements and Classes (4-H 33121).
2. Each exhibit must be labeled with the member's name, county and class number.
3. Members who have previously been in 4-H forestry must exhibit all their mounts, but only the 5 new ones will be judged.

## Mounted Forestry Specimens

1. Tree and shrub specimens exhibited must be listed on the official forestry specimens list available in 4-H Forestry Exhibit Requirements and Classes (4-H 33121).
2. For Seniors exhibiting wildflowers and ferns, use the "Other Reference Texts" list.
3. Intermediate and Senior members must use the Specimen Collection Site Analysis Sheet for each specimen collected.
4. The recommended reference to check for current family names is *Plants of the Pacific Northwest Coast, Washington, Oregon, British Columbia and Alaska* compiled and edited by Jim Pojar and Andy MacKinnon

## Juniors

**441 100 011 Forestry, Junior First Year**, index, 5 mounts, all must be trees.

**441 100 021 Forestry, Junior Second & Third Year**, index, 10 to 15 mounts, all must be trees. Only the index and 5 new mounts will be judged.

## Intermediates and Seniors

1. The number of mounts may vary depending on the number of years in the project. All mounts should be exhibited. The new mounts should be placed in front of the old mounts in the book.
2. Only the index and 5 new mounts with site analysis sheets will be judged.
3. Intermediates new mounts may include trees and shrubs. Seniors new mounts may include trees, shrubs, ferns and wildflowers.

**441 100 012 Forestry, Intermediate First Year**, the number of mounts may vary from 5 to 20

**441 100 022 Forestry, Intermediate Second & Third Year**, the number of mounts vary from 10-30

**441 100 013 Forestry, Senior First Year**, the number of mounts may vary from 5 to 35.

**441 100 023 Forestry, Senior Other**, the number of mounts may vary from 10-45.

## Advanced Forestry Exhibits

1. These classes are open to Forestry members.
2. Members may exhibit in one topic or make one exhibit by combining topics.
3. Junior and Intermediate members exhibit 10 or more specimens; Senior members exhibit 15 or more specimens. All must have been collected in the current 4-H year.
4. Exhibit may be flat board or three dimensional. Three dimensional display size maximum is 30" in length, 24" deep (front to back), and 36" high. The flat board maximum size is 22" by 28". Refer to guidelines in the "4-H Forestry Exhibit Requirements" (1998) for specific advanced forestry exhibit details.
5. Include explanation to the judge as outlined under Educational Display Division in the fair book.
6. Educational Display exhibits are scored using the Educational Display Check Sheet (000-02), available at the county Extension office or on the State 4-H website.

**Note: Fill in blank in class number ( ) with corresponding number for Junior, Intermediate or Senior. One exhibit per class number.**

**1 Junior**

**2 Intermediate**

**3 Senior**

**4 Club (two or more members working together)**

**441 200 511 Junior First Year Forestry Member**, advanced exhibit. Topic includes cones, tree seeds, conks, damage specimens, bark, wood mounts, lumber mounts or other educational displays.

**441 200 52\_ Advanced Forestry Exhibit**, using one or combining the topics of cones, seeds and bark.

**441 200 53\_ Advanced Forestry Exhibit**, using one or combining the topics of conks and damage specimens.

**441 200 54\_ Advanced Forestry Exhibit**, using one or combining the topics of wood mounts and lumber mounts.

**441 200 55\_ Advanced Forestry Exhibit**, project display (i.e., management plans, tree farm maps, model camp sites, career opportunities, forestry concept or use your imagination to create your own display).

# Geology

**Superintendent: Open**

## **Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

1. At least 50% of the specimens must have been found by the exhibitor and at least five of the specimens collected during the current 4-H year. Put an asterisk on the label in front of the name of each specimen collected during the current 4-H year. The asterisk helps the judge determine if your display meets the criteria. Only the current 4-H year's specimens should have an asterisk.
2. Polished or cut specimens must be exhibited under Geology Educational, with the exception of geodes specimens only which may be cut, but NOT POLISHED as part of a collection.
3. Judging criteria are outlined on the Geology Exhibit Score Card (421-01), available at the county Extension office or on the State 4-H website.
4. A Specimen Collection Geology Site Analysis Sheet is required for each specimen in Intermediate and Senior Geology collections. One sheet needs to be filled out for each of the new specimens collected for the current year. It is available on line. Attach the completed sheets to the bottom of the collection box in an unsealed envelope for the judge to read at fair.
5. See 4-H Geology Manual for further exhibit requirements

**421 100 011 Geology, Junior First Year Member**, 10 specimens.

**421 100 021 Geology, Junior Second and Third Year Member**, 15 to 20 specimens.

**421 100 012 Geology, Intermediate First Year Member**, 15 to 25 specimens.

**421 100 022 Geology, Intermediate Second and Third Year Member**, 20 to 35 specimens.

**421 100 013 Geology, Senior First Year**, 20 to 40 specimens.

**421 100 023 Geology, Senior Other Member**, 25 to 50 specimens.

## **Project Display**

1. Project Display Exhibit relating to Geology could include polished, cut specimens, growing crystals, volcanoes, effects of weathering, geologic formations, time periods, etc.
2. Educational display may not exceed 30" in width, 24" deep (front to back) and 36" high. Include explanation to the judge as outlined under Educational Display in fair book.
3. Score card for Geology Educational exhibit will be the Educational Display Check Sheet (000-02), available at the county Extension office or on the State 4-H website at: <http://oregon.4h.oregonstate.edu/fair-exhibit-and-contest-materials>

4. Recommended references for identification of specimens: *National Audubon Society Field Guide to Rocks and Minerals of North America* and *Dictionary of Geological Terms, American Geological Institute*, written by Robert L. Bates and Julia A. Jackson. Any identification of specimens using other sources is subject to disqualification by the judge.

**421 200 011 Geology Project Display, Junior**

**421 200 012 Geology Project Display, Intermediate**

**421 200 013 Geology Project Display, Senior**

**421 200 014 Geology Project Display, Club** (two or more members working together)

# Honeybee

**Superintendent: Open**

## **Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

Fully completed Explanation Forms, and Exhibit Cards are required for each display. Forms are available at County Extension and at: <https://extension.oregonstate.edu/4h/state-fair#Natural>; click on the appropriate subdivision. Each piece of exhibit must be labeled with the member's name, county, class number. Score sheets per section are also found at above site.

1. Open to all 4-H members regardless of project enrollment.
2. Each exhibit piece must be labeled with the member's name, county and class number.
3. Club exhibits are to be entered under the club name but must include the names of all members and leaders. This may be on a separate paper securely attached to the back of the exhibit.
4. Exhibit: An educational exhibit relating to honeybees, honeybee keeping, honeybee products or honeybee information. It may not exceed 30" in width, 24" deep (front to back) and 36" high. It may not include live bees.
5. An Educational Display Exhibit Explanation Card (000-01) must be attached to each exhibit. Judging criteria are outlined on the 4-H Educational Poster/Display Score Sheet (40-463) available at the county Extension office or on the state 4-H website.

**Note: Fill in the blank in the class number (\_\_) with the corresponding number for Junior, Intermediate, Senior or Club.**

**1 Junior      2 Intermediate                      3 Senior      4 Club**

**821 200 00\_\_ Honeybee Educational Display**, an educational exhibit relating to honeybees.

# Marine Science

**Superintendent: Open**

**Judging occurs the Saturday before Summer Fair in July**

Members may enter up to two items per class at county level, but only one at State.

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1. Each exhibit piece must be labeled with the member's name, county and class number.
2. A project exhibit relating to the marine environment. May be either salt water or fresh water.
3. May not exceed 30" in width, 24" deep (front to back), and 36" high.
4. An *Educational Display Exhibit Explanation Card* (000-01) must be attached to each exhibit. Judging criteria are outlined on 4-H Educational Display Evaluation Sheet (000-02), available at the county Extension office or on the State 4-H website.

**423 200 011 Marine Science, Junior First Year**

**423 200 021 Marine Science, Junior Second and Third Year**

**423 200 012 Marine Science, Intermediate First Year**

**423 200 022 Marine Science, Intermediate Second and Third Year**

**423 200 013 Marine Science, Senior First Year**

**423 200 023 Marine Science, Senior Other**

**423 200 034 Marine Science, Club (two or more members working together)**

# Outdoor Science

**Superintendent: TBD**

## **Judging occurs the Saturday before Summer Fair in July**

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1. Each exhibit piece must be labeled with the member's name, county and class number.
2. A project exhibit relating to the out-of-doors. May not exceed 30" in width, 24" deep (front to back), and 36" high.
3. Include an explanation of such things as: how to use exhibit, how made, where found, identify parts, etc., if appropriate to exhibit. Example: A birdhouse exhibit could include plans for making it, where it would be used, for what birds, an actual picture of where it will be used, etc.
4. An *Educational Display Exhibit Explanation Card* (000-01) must be attached to each exhibit. Judging criteria are outlined on 4-H Educational Display Check Sheet (40-463), available at the county Extension Office or on the state 4-H website.

**451 200 011 Outdoor Science, Junior First Year**

**451 200 021 Outdoor Science, Junior Second and Third Year**

**451 200 012 Outdoor Science, Intermediate First Year**

**451 200 022 Outdoor Science, Intermediate Second and Third Year**

**451 200 013 Outdoor Science, Senior First Year**

**451 200 023 Outdoor Science, Senior Other**

**451 200 034 Outdoor Science, Club** (two or more members working together)