



ATCP – 160.64 NATURAL  
SCIENCES – DEPARTMENT 16

**Please see Judging Schedule for  
dates & times.**

**Adult Superintendents: Peter Bernstein  
Ryan Indergard**

**Natural Sciences Rules and Instructions**

- a) Exhibitors and their families are responsible for reading and complying with the Junior Fair General Rules & Instructions.
- b) The Fair Association is not responsible for exhibits lost or stolen.
- c) **Each entry should have a 3"x5" card which describes:**
  - a. **Exhibitor grade and number of years in project**
  - b. **Steps taken to complete this exhibit.**
  - c. **What have you learned or practiced in completing this exhibit.**
- d) To be eligible, work must have been made since the first day after the previous fair to exhibit.
- e) Scrapbooks must not contain any commercial photographs or pictures.
- f) Posters must be no larger than 14"x22", and displays must be no larger than 28"x40", unless otherwise stated.
- g) Include age & number of years in the project on back of poster or on 3"x5" card.
- h) If graphics/photos/research are not the original work of the exhibitor, the source must be noted on the project. Exhibits that do not cite sources of content that are not exhibitor's original work will be dropped one ribbon placing and not be eligible for awards.

**Premiums \$ 2.00 \$ 1.75 \$ 1.50 \$ 1.25**

**CLASS A – FORESTRY**

**Lot**

1. Individual exhibit of 15 or more leaves of native Wisconsin trees (properly labeled). Can be actual leaves, rubbing, or drawings. Include the location where you found the leaves.
2. Exhibit featuring cross section of tree with rings labeled to show interesting times in a tree's history.
3. Collection of 15 or more kinds of tree seeds, mounted and labeled.
4. Piece of handicraft work (Biltmore stick, firemaker, wastebasket, transport board, etc.)
5. Exhibit of five or more tree bark rubbings, with tree identified.
6. Exhibit of equipment and explanation of the process of making your own paper from old paper (include sample)
7. Exhibit of Fire Prevention.
8. Maple syrup, 1 pint in clear mason jar
9. Exhibit, photos of maple syrup making process
10. Exhibit of any other phase of the project.

**CLASS B – BIRDS**

**Lot**

20. Bird watcher's log of birds observed, summer or winter months.
21. Homemade birdhouse, attach 3"x5" card explaining work/intended use.
22. Homemade winter feeding station, attach 3"x5" card explaining work and intended use.
23. Scrapbook of at least 10 Wisconsin birds – hand drawn explaining nest type, diet, nesting habits, etc.
24. Exhibit, identify the body parts of a bird and their functions.
25. Exhibit of any other phase of the project.

## **CLASS C – WILDFLOWERS**

### **Lot**

30. Centerpiece/Flower arrangement using fresh or dried wildflowers.
31. Exhibit showing parts of a flower.
32. A photographic collection of local wildflowers.
33. Exhibit, life cycle of a flowering plant.
34. Exhibit on plant-related careers.
35. Three properly mounted and labeled Wisconsin Wildflowers.
36. Exhibit of any other phase of the project.

## **CLASS D – RECYCLING**

### **Lot**

40. A creative exhibit showing a new product (with a new use) invented from an old product. Include pictures explaining the process.
41. Exhibit illustrating 5 recyclable materials and 5 non-recyclable materials.
42. Exhibit on benefits of recycling.
43. Any other recycling project not listed above.

## **CLASS E – SPORTFISHING, Gr. 3-6**

- a) All hooks/sharp objects must be covered.

### **Lot**

50. Exhibit – Parts of a fish
51. Exhibit – Types of fish in your area
52. Exhibit – Types of bait
53. Exhibit – Types of fishing knots
54. Exhibit – Types of fishing tackle
55. Exhibit – Tackle box inventory checklist
56. Exhibit – How to cast accurately
57. Exhibit – Differences between bobber and bottom fishing
58. Exhibit – Map of favorite fishing spot
59. Exhibit – Caring for your catch
60. Exhibit – Water cycle

## **CLASS F – SPORTFISHING, Gr. 7-9**

- a) All hooks/sharp objects must be covered.

### **Lot**

65. Exhibit – Selecting the right fishing knot
66. Exhibit – How to use a spinning rod and reel
67. Exhibit – How to cast a bait
68. Exhibit – How to cast a fly
69. Decorated lure or jig
70. Fly wallet
71. Artificial fly
72. Exhibit – Wisconsin fishing laws
73. Exhibit – Cooking fish
74. Soda bottle trap
75. Fish Senses
76. Exhibit of any other phase of the project

## **CLASS G – SPORTFISHING, Gr. 10 and up**

- a) All hooks/sharp objects must be covered.

### **Lot**

80. Exhibit – Parts of a fishing reel
81. Exhibit – Fishing reel maintenance
82. Exhibit – How to make artificial lures and flies
83. Cedar wood lure
84. Refurbished rod and reel
85. Exhibit – Types of insects that fish like
86. Sport fishing skillathon
87. Fishing trip plans or report
88. Field Fishing Journal
89. Water inversion experiment
90. Exhibit of any other phase of the project

## **CLASS H – SHOOTING SPORTS EDUCATIONAL EXHIBITS**

### **AIR RIFLE, AIR PISTOL, .22 RIFLE AND .22 PISTOL**

#### **Lot**

100. Rifle or pistol, Exhibit on the proper care, maintenance and handling
101. Rifle or pistol, Exhibit identifying the parts and the purpose of each part (use 14"x22" poster)
102. Rifle or pistol, Exhibit illustrating all of the different sites (14"x22")
103. Rifle or pistol, Exhibit illustrating all four (4) rifle firing positions or all four (4) pistol firing positions
104. Rifle or pistol, Exhibit showing types of equipment and accessories
105. Rifle or pistol, Report or Scrapbook of competitive experience or clinic outside of 4-H (competition must have been held between last year's fair and this year's fair)
106. Rifle or pistol shooting journal showing improvement in target progress and explaining the process that you used
107. Rifle or pistol, Exhibit of any other phase of the project

### **SHOTGUN**

#### **Lot**

110. Shotgun, Exhibit illustrating and briefly explaining proper sight alignment
111. Shotgun, Exhibit identifying the parts and the purpose of each part (poster 14"x22")
112. Shotgun, Exhibit illustrating the different sights (poster 14"x22")
113. Shotgun, Homemade shell pouch
114. Shotgun, Exhibit describing the differences between shooting skeet/trap/clay pigeons (poster 14"x22")
115. Shotgun, Exhibit illustrating "how to" clean and care for
116. Shotgun, Exhibit of any other phase of the project
117. Shotgun, Report or Scrapbook of competition or clinic outside of 4-H

## **MUZZLELOADING**

#### **Lot**

120. Muzzleloader, Make your own "possibles" bag or powder horn
121. Muzzleloader, Make your own accessory
122. Muzzleloader, Exhibit explaining the proper steps to cleaning after use. (poster 14"x22")
123. Muzzleloader, Create a Scrapbook depicting attendance at a "Rendezvous" (i.e. Bloody Lake)
124. Muzzleloader, Put together a period appropriate costume for a "Rendezvous" event; 1830's fur trading era.
125. Muzzleloader, Any other phase of the project

## **ARCHERY**

#### **Lot**

130. Archery, Exhibit identifying parts of a bow and purpose of each (14"x22")
131. Archery, Exhibit of homemade accessory or equipment (example: quiver, arm guard, finger tab, glove, or bow case)
132. Archery, Exhibit illustrating different kinds of arrows (14"x22")
133. Archery, Exhibit illustrating different kinds of bows (14"x22")
134. Archery, Exhibit of drawings or pictures showing proper shooting techniques
135. Archery, Scrapbook explaining a bow hunting or bow fishing experience
136. Archery, Homemade bow rack or arrow holder
137. Archery, Exhibit of any other phase of project

## CLASS I – SHOOTING SPORTS TARGET SHOOTING

### Target Shooting Rules & Exhibiting Instructions

- a) **Youth must pre-register for the 4-H Shooting Sports program and meet minimum 4-H sponsored session requirements before they are allowed to shoot in the contests listed below.**
- b) Targets shot at the 4-H contest(s) must be stapled on poster board (see specific size of discipline) and brought to Fair check-in to be displayed, in order to collect premium.

### **AIR RIFLE Target Shooting**

- Air Rifle Target Shooting Contest held April 24 or May 8, 2021 at the Green County Rifle Range, Monroe.
- Air Rifle Targets stapled to 14"x22" poster board

#### **Lot**

140. Air Rifle Target, Gr. 3-5  
141. Air Rifle Target, Gr. 6-8  
142. Air Rifle Target, Gr. 9 and up

### **.22 RIFLE Target Shooting**

- .22 Rifle Target Shooting Contest held April 10, 2021 at the Green County Rifle Range, Monroe.
- Two .22 Rifle Targets stapled to 11"x14" poster board
- Limit of 1 entry per member

#### **Lot**

150. .22 Rifle Target, Iron Sights, Gr. 6-8  
151. .22 Rifle Target, Iron Sights, Gr. 9 and up  
152. .22 Rifle Target, Scope Sights, Gr. 6-8  
153. .22 Rifle Target, Scope Sights, Gr. 9 and up

### **SHOTGUN Target Shooting**

- Shotgun Target Shooting Contest held May 7, 2021 at the Blackhawk Sportsman's Range.
- Shotgun Targets stapled to 11"x14" poster board

#### **Lot**

170. Shotgun Target, Gr. 6-8  
171. Shotgun Target, Gr. 9 and up

### **ARCHERY Target Shooting**

- 4-H Archery Postal Shoot will be used for county fair competition this year.
  - Each youth will receive 3 targets to be shot during the months of April, May and June (1 target per month).
  - Each target must either be postmarked or dropped off at the Extension office by the 1st of the following month. (Ex. April target must be returned by May 1, etc.)
  - Placings will be determined by the composite score of all posters submitted.
- **Archery Bare Bow:** Youth will shoot long bows, re-curves, or compound bows without the aid of mechanical releases or sighting devices. (Sight brackets must be removed from the bow, no peep or other string sights may be used. Must be shot with fingers.)
- **Shooting Aid:** Allowing the use of non-optical sights and stabilizers, no mechanical releases, must use fingers.
- **Archery Freestyle:** Allowing any use of sights, any type of stabilizer, and any type of release can be used.
- **Arrows:** Only target or field points are to be used. No hunting points.

#### **Lot**

180. Archery Target, Bare Bow, Gr. 3-5  
181. Archery Target, Bare Bow, Gr. 6-8  
182. Archery Target, Bare Bow, Gr. 9 and up  
183. Archery Target, 1 Aid, Gr. 3-5  
184. Archery Target, 1 Aid, Gr. 6-8  
185. Archery Target, 1 Aid, Gr. 9 and up  
186. Archery Target, Freestyle, Gr. 3-5  
187. Archery Target, Freestyle, Gr. 6-8  
188. Archery Target, Freestyle, Gr. 9 and up

## CLASS O – INSECTS

### Lot

200. Gr. 3-5, Exhibit of at least 10 kinds of insects from 6 Orders (more than 10 are allowed)
201. Gr. 6-8, Exhibit of at least 20 kinds of insects from 9 Orders (properly identified), (more than 20 are allowed)
202. Gr. 9 and up, Exhibit of at least 30 kind of insects from 9 Orders (properly identified), (more than 30 are allowed)
203. Exhibit on life cycle of two insects
204. Exhibit identifying parts of an insect
205. Exhibit on proper labeling of insects
206. Scrapbook of 10 Wisconsin insects, hand-drawn and properly labeled
207. One jar or one cake of honeycomb to be between ½ to 1 lb. –
208. Exhibit of any other phase of the project

## CLASS P – ADVENTURES, Gr. 3-6

### Adventures Rules and Instructions

- a) Open to members enrolled in Adventure projects (which includes activities such as backpacking, hiking, bicycling, camping, canoeing, kayaking, rock climbing, snow shoeing, cross country skiing, and downhill skiing.)
- b) Limit of 2 entries.

**Premiums \$ 2.00 \$ 1.75 \$ 1.50 \$ 1.25**

### Lot

215. A simple day pack from plans or a kit
216. A scrapbook of activities involved with an adventure activity
217. Any piece of handmade adventure equipment made by the exhibitor
218. Any other display exhibit related to this project

## CLASS Q – ADVENTURES, Gr. 7-9

**Premiums \$ 2.50 \$ 2.25 \$ 2.00 \$ 1.75**

### Lot

225. Exhibit based on library research that shows the calories needed to sustain a person of a given weight when hiking with a pack
226. A menu for a day's outdoor adventure
227. Exhibit showing guidelines for selecting a backpack or a sleeping bag
228. Exhibit illustrating how to pack a canoe so it is waterproof in a rainstorm
229. Exhibit of adventure gear items made by exhibitor
230. Any other exhibit related to this project

## CLASS R – ADVENTURES, Gr. 10 and up

**Premiums \$ 3.00 \$ 2.75 \$ 2.50 \$ 2.25**

### Lot

235. A reflector oven made by exhibitor
236. Exhibit of dehydrated camping foods and their calorie content
237. Exhibit of orienting and map reading skills
238. Exhibit of items of adventure gear the member has made
239. Any other exhibit related to this project

## CLASS S – HUNTING/TRAPPING/WILDLIFE ECOLOGY

### Lot

245. Booklet (8 ½ x 11") identifying game birds and/or animals and/or furbearers, including habitat, feeding habits and hunting/trapping regulations. Grades 3-5: Minimum = 3; Grades 6-8: Minimum = 5; Grades 9+: Minimum = 7.
246. Hunting/Trapping conservation exhibit (14"x22")
247. Exhibit identifying an animal you would hunt with a bow and its habitat ( 14"x22")
248. Exhibit identifying 5 birds of prey including descriptions of their habitats and feeding habits (14"x22")
249. Scrapbook identifying 5 of Wisconsin's Endangered and threatened Species. Include their habitat, feeding, and reproduction, and how their habitat, food, reproduction, disease or circumstances have contributed to their decline.

250. Camera Hunt of 10 wildlife photos mounted on 14"x22" poster board
251. Any piece of wildlife art or clothing or tools made from wildlife.
252. Make your own "possibles" bag or powder horn for muzzleloading.
253. Exhibit displaying different types of traps and/or cable devices. Label the parts and explain what species each might be used for and reasons you might use one trap vs. another. Board MUST be able to be hung on the wall.
254. Taxidermy or home tanned hide completed by exhibitor. Include photos of the project and process.
255. Scrapbook of hunting experience, including preparations, license/permissions needed. Prey's habitat, technique used and general location (state and county).
256. Any other phase of the project.

### **CLASS T – GEOLOGY, Gr. 3-8**

#### **Rules and Regulations**

- a) Any form of translucent display can be used.
- b) Minimum of 6 specimens.
- c) Minerals must be labeled. Either by a key or directly labelling the compartment that the mineral is in. Should be typed.
- d) Where the mineral was found (should have date as well).
- e) Themes or ordering by type encouraged (I.E. quartzes, agates, fossils, etc.)

#### **Lot**

260. Exhibit, rock and mineral collection
261. Exhibit, fossil collection
262. Exhibit, rock formation types, how they formed
263. Exhibit, erosion process
264. Exhibit, water feature types
265. Exhibit, soil types
266. Exhibit, glacial processes
267. Exhibit, glacial remnants
268. Any other exhibit related to geology

### **CLASS U- GEOLOGY, GR. 9 & UP**

#### **Rules and Instructions**

- a) Shadowbox or similar (must be a clear cover).
- b) Specimens labeled or keyed, typed (readable font).
- c) Chemical notation
- d) Where the specimen was found and date.
- e) Specimens should be securely anchored so that it could be displayed vertically or angled.
- f) Minimum of 12 specimens
- g) Themes or ordering by type encouraged (I.E. quartzes, agates, fossils, etc.)
- h) Notation Examples:
  - Rose Quarts
    - $\text{SiO}_2$
    - Purchased, 5-16-19
  - Jasper
    - $\text{SiO}_2$
    - Albany WI, N. Ball Diamond 8-13-20-19

#### **Lots**

270. Exhibit, rock and mineral collection
271. Exhibit, fossil collection
272. Exhibit, rock formation types, how they formed
273. Exhibit, erosion process
274. Exhibit, water feature types
275. Exhibit, soil types
276. Exhibit, glacial processes
277. Exhibit, glacial remnants
278. Any other exhibit related to geology.