

7 Classroom Projects

About Classroom Projects

Classroom Projects are designed for elementary, middle, and high school students. Classrooms enrolled in the Kokanee Karnival program at the Elective Level may apply to participate in one or all of the Classroom Projects.

Classrooms enrolled at the Comprehensive Level are required to participate in the Fish Eggs to Fry egg incubation, Angler Education, and Community Stewardship classroom projects. The Fish Dissection classroom project is optional.

Classroom Projects occur throughout the school year. The duration of the projects ranges from a few hours to several weeks, depending on the project. Classroom Projects consist of the following four options:

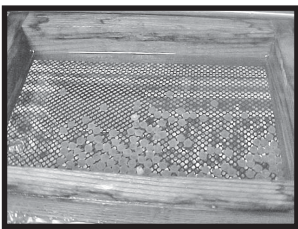
- 1. Fish Eggs to Fry** – During the process of incubating and hatching salmon or trout eggs in the classroom and releasing the young fry into an approved local waterbody, students learn about fish habitat, life cycles, and scientific technique. Students apply stewardship, math, and graphing skills by calculating and plotting water temperature to control egg development. This project models events that occur within a redd in natural stream conditions. Classrooms enrolled in Kokanee Karnival at the Comprehensive Level are required to participate in this classroom project.
- 2. Fish Dissection** – This lesson in comparative physiology examines external and internal fish anatomy and adaptations for life in water. Discussion includes comparisons of how fish, other animals, and humans behave in their environment. This classroom project is optional for schools enrolled in Kokanee Karnival at the Comprehensive Level.

3. Angler Education – Certified volunteer instructors use *Responsible Angling: The Oregon Angler Education Manual* as the curriculum for a course that provides students with an understanding of the aquatic ecosystem while developing skills, knowledge, and responsibilities associated with angling (basic fishing skills, principles of environmental stewardship, responsibility and ethical conduct, safety around the water, catch and release, preserving aquatic resources, maintaining healthy watersheds, and more). Classrooms enrolled in Kokanee Karnival at the Comprehensive Level are required to participate in this classroom project prior to attending the Angling Clinic Experience. For a copy of *Responsible Angling: The Oregon Angler Education Manual*, contact your local Oregon Department of Fish and Wildlife (ODFW) office.

4. Community Stewardship – Students participate in projects that encourage caring for natural resources. Community Stewardship projects may include tree planting, stream clean-ups, or storm drain marking. Classrooms enrolled in Kokanee Karnival at the Comprehensive Level are required to participate in this classroom project.

Fish Eggs to Fry

To participate in the Fish Eggs to Fry egg incubation classroom project, a teacher must submit a completed Egg Request form and Application for Elective Program Options or Comprehensive Level form to the Kokanee Karnival Program Director in early spring for the following school year. For examples of these forms, see the **Appendices**. Fish eggs are available for delivery to Kokanee Karnival classrooms twice each year, in late October or early February.



With funding provided by grants, Kokanee Karnival supplies some equipment, such as chillers, aquariums, powerheads, gravel, and undergravel filters to classrooms. The amount of equipment the Kokanee Karnival program provides depends on funds available and the number of classrooms participating. The ODFW Salmon-Trout Enhancement Program (STEP) supplies each school with one copy of the *Fish Eggs to Fry* manual. This manual is an excellent “how-to” guide for hatching salmon and trout eggs in the classroom. It includes everything a teacher needs to know to complete this project successfully.

To conduct the Fish Eggs to Fry Egg Incubation classroom project:

1. Coordinate the project with the local ODFW-STEP Biologist.

All components of this classroom project must involve the ODFW-STEP Biologist. The ODFW-STEP Biologist is responsible for contacting the fish hatchery and arranging a date to pick up the fish eggs; coordinating classroom fish egg deliveries; arranging for approval of the release site for fry; providing required forms for volunteers and teachers; and answering teachers' questions about egg development. If there is no ODFW-STEP Biologist in your area, contact a local Department of Fish and Wildlife office.

2. Determine which classrooms have applied to participate and the number of volunteers needed; assign volunteers to one or more classrooms to deliver the eggs.

In some cases, the teacher may request that the volunteer provide a brief presentation to the classroom during the delivery. If so, be sure to match a trained volunteer comfortable with presentations to that classroom. The presentation may cover topics such as which hatchery supplied the eggs, the age of the eggs, how eggs are collected, life cycle of trout and salmon, the number of eggs in the packet, how they are counted at the hatchery, operating the Glacier chiller, and more. Coordinate fish egg delivery training sessions for volunteers with your local ODFW-STEP Biologist well before the delivery date.



3. With the help of the ODFW-STEP Biologist, determine the date to pick up the fish eggs at the hatchery.
4. Contact volunteers who will deliver fish eggs to classrooms. Remind each volunteer to bring a lunch-size cooler to keep the fish eggs cool while making their deliveries. Arrange for one volunteer to pick up the eggs at the hatchery.
5. Four weeks before the fish egg delivery date, notify teachers (via mail, email, or phone) of the approximate delivery date. Ask teachers whether they want the volunteer who delivers fish eggs to make a classroom presentation during the delivery.

6. Two weeks before the fish egg delivery date, notify teachers of the date and approximate time the eggs will be delivered. Remind teachers to set up their aquariums and run the chiller and powerhead at least one week prior to the delivery date. Ask teachers to respond if they need equipment.
7. One week before the fish egg delivery date, remind teachers again of the delivery date.
8. Two days before the fish egg delivery date, ask each school's assigned volunteer to call each teacher. Use the Fish Egg Delivery Coordination Checklist to ensure the aquarium is ready. For a sample checklist, see the **Appendices**.
9. On the egg delivery day, the assigned volunteer goes to the hatchery with coolers, egg trays, and platforms to keep eggs out of melted ice water—all supplied by the ODFW-STEP Biologist.
10. All volunteers meet at a preassigned location to pick up individual egg packets and paperwork supplied by the ODFW-STEP Biologist.
11. Volunteers deliver eggs to their assigned classrooms, make a presentation if requested, and have teachers sign the Egg and Fry Record receipt and the Conditions of Volunteer Service form.
12. Volunteers return forms to the ODFW-STEP Biologist at the local ODFW office and report their volunteer hours worked and miles driven to the Kokanee Karnival Program Director.



One volunteer is designated to coordinate the overall Fish Eggs to Fry egg incubation classroom project for Kokanee Karnival. This volunteer tracks chillers, aquariums, and other equipment supplied to schools by Kokanee Karnival; coordinates the project with the ODFW-STEP Biologist; notifies schools of the fish egg delivery date; arranges equipment deliveries to schools; and recruits volunteers to deliver fish eggs to schools.

Fish Dissection

To participate in the Fish Dissection classroom project, a teacher must submit a completed Application for Elective Program Options or Comprehensive Level form to the Kokanee Karnival Program Director in early spring for the following school year. For examples of these forms, see the **Appendices**. Fish Dissection usually occurs in May.

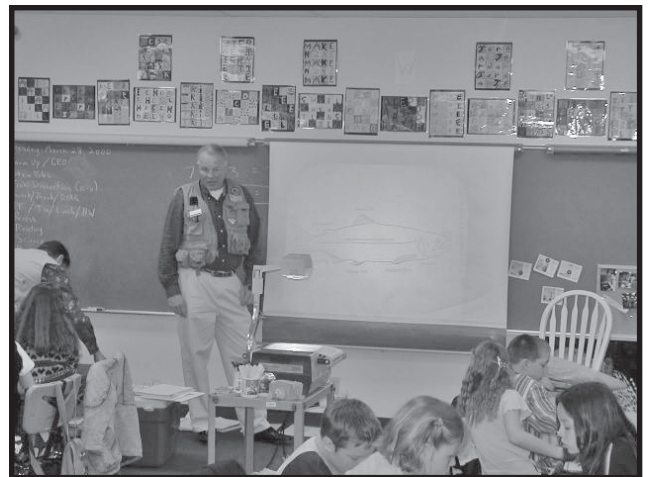
A trained volunteer or a teacher may conduct the Fish Dissection. If a teacher chooses to conduct the dissection, a dissection outline, teacher training, handout masters, and fish are available. For a sample dissection outline, see the **Appendices**. Allow at least 1 hour and 15 minutes to complete the dissection.



Coordinate volunteer and teacher fish dissection training with your local ODFW-STEP Biologist.

To conduct the Fish Dissection classroom project:

1. Coordinate the project with a local ODFW-STEP Biologist or Fisheries Biologist. The biologist will coordinate availability of fish from a local hatchery for the dissection based on the number of requests received on the applications.
2. Determine which schools have applied to participate.
3. Contact your local ODFW-STEP or Fisheries Biologist to find out when appropriately sized fish are available.
4. Arrange for a trained volunteer to conduct the dissection. Make sure the volunteer has all the equipment and supplies needed for the dissection.



All dissection materials are stored in one box. It is easy for the volunteer to check its contents, take the box, and proceed to the school to complete the assignment. It is helpful to have two volunteers conduct the dissection.



5. Notify teachers of the date and time a volunteer will arrive and any material the teacher needs to supply.

6. The volunteer goes to the school and conducts the dissection on the assigned date. The volunteer may also need to pick up the fish at the hatchery or at a pre-arranged location.

Angler Education

To participate in the Angler Education classroom project, a teacher must submit a completed Application for Elective Program Options or Comprehensive Level form to the Kokanee Karnival Program Director in early spring for the following school year. For examples of these forms, see the **Appendices**. Angler Education usually occurs prior to the Angling Clinic Experience for classrooms enrolled at the Comprehensive Level and at other times for classrooms enrolled at the Elective Level.



To become a certified volunteer Angler Education Instructor, volunteers must participate in a day-long training session sponsored by the ODFW. To learn about training opportunities in your area, contact your local Department of Fish and Wildlife or the Angler Education Program Coordinator at the ODFW's Salem headquarters.

To conduct an Angler Education classroom project:

1. Coordinate the project with a local ODFW Angler Education Coordinator.
2. Determine which schools have applied to participate and request an adequate number of copies of *Responsible Angling: The Oregon Angler Education Manual* and *Oregon Sport Fishing Regulations* from the ODFW Angler Education Program Coordinator.
3. Arrange for a certified volunteer Angler Education Instructor to visit each school.
4. Notify teachers of the date and time the volunteer will arrive.
5. The volunteer goes to the school and conducts the first Angler Education session using a prepared script.

During the first session, the volunteer provides each student with a copy of *Responsible Angling: The Oregon Angler Education Manual* and a current copy of the *Oregon Sport Fishing Regulations*. The volunteer explains the process and expectations.

6. Several weeks later, the volunteer returns to the school at a pre-arranged time. Using a prepared script, the volunteer asks students questions to ensure they have learned general

angling regulations, catch and possession limits, safety, and special regulations. The volunteer also covers fish identification, knot tying, fishing dilemmas, and map reading skills. Allow two hours for this portion of the project.

For samples of scripts, see **Chapter 9. Scripts.**

The volunteer Certified Angler Education Instructor generally follows this schedule:

September - Meets each teacher during the Streamside Experience.

January - Contacts each teacher and confirms the teacher's commitment to Angler Education.

February - Requests copies of the manuals and regulations and delivers these items to classrooms.

March to June - Goes to each school and conducts Angler Education sessions. Classrooms enrolled at the Comprehensive Level must complete Angler Education before attending the Angling Clinic.



Community Stewardship

To participate in a Community Stewardship classroom project, a teacher must submit a completed Application for Elective Program Options or Comprehensive Level form to the Kokanee Karnival Program Director in early spring for the following school year. For examples of these forms, see the **Appendices.**

Community Stewardship Classroom Projects may occur throughout the year and vary in duration and difficulty. Teachers may devise their own project or help with one that already exists. Community Stewardship classroom projects include the following suggestions:

Storm Drain Marking – Raise awareness about water quality issues in your community by stenciling “Dump No Waste, Drains to Stream” or “Dump No Waste, Protect Your Groundwater” on asphalt near storm drains. Contact the local ODFW-STEP Biologist to obtain a video and brochure explaining the project and activity ideas to supplement the project.

Riverside Clean-Up Day – Participate in an established community river clean-up project, or choose a day, time, and stream section where your class will remove litter.

Tree Planting – Contact local government agencies to find out how to help restore habitat with a tree planting project.

Presentations to Sponsors – Invite one or more sponsors to your classroom and have students give a presentation about their Kokanee Karnival experiences or community service project.

Write Letters – Have students write illustrated letters about watersheds to elected officials at the local, state, or national level. Or, write a letter to the editor of your local newspaper.

Neighborhood Clean-Up Day – Select an area of your neighborhood and pick up litter. Involve your neighborhood by sharing your project goals with neighbors.

To conduct a Community Stewardship Project:

1. Determine which schools have applied to participate.
2. Ask the schools to identify which project they plan to undertake.
3. Determine if the schools need assistance from the Kokanee Karnival program.



Assistance is limited for community service projects because the idea is to “give back” to the resource in exchange for the volunteer time and program support provided by Kokanee Karnival.
