Stewards of Their Streams

A Menu of the Friends of the Fox River Formal Education Programs

Purpose - "Our Cuisine"

We are promoting environmental stewardship through water quality experiences in which students are scientists. Students are charged with collecting, refining, and reporting data to a database allowing the public to observe trends over time by looking at their school's data from past to present. Below is a list of educational opportunities organized as menu items that are offered. The chef may be able to accept special orders to satisfy a classroom's unique dietary needs!



Students in the stream during the field experience at their local tributary.

Select your service - "A Three Course Meal"

If your schedule allows it, our recommendation is a three-component water quality education experience for students beginning with a classroom session (see *appetizers*), followed by a field session at a local creek (see *entrees*), and concluding with a virtual and/or classroom session for reflection, data interpretation, and calls to action (see *desserts*).



Stewardship is appreciating and protecting something you care about.



Students conducting a water chemistry stream-side experiment.

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Appetizers Course: Classroom

During this course FOFR educators visit your classroom to present information, encourage inquiry, and lead activities. If a field study is to follow, this visit will set the tone for the stream experience helping students prepare for activities and understand their responsibilities.



The "Enviroscape" pollution modelling activity

Appetizer Selections	<u>Allotted time</u>	
Concepts overview slide show	15 – 20 mins*	
Expectations/techniques videos	5 – 10 mins*	
River geography: using maps to learn about the watershed	5 – 20 mins	
\Box Enviroscape: a visual display of the fate and transport of pollution	15 – 20 mins	
Water quantity and source activities	15 – 25 mins	
Macroinvertebrate Identification activities	15 – 30 mins	
Pollution tolerance Discussion	5 – 10 mins	
Velocity and Discharge simulation and calculation	5 – 15 mins	
Cultural history of site	5 – 10 mins 💃	2
* denotes a recommended item if field study is to follow classroom visit.	1 1 1	ALL REAL

Entrée Course: At Your local Fox River Tributary

This course is a field study with boots-on data collection and interpretation for physical, chemical, and biological parameters. FOFR provides one or more educators, boots and gear for all participants to get in the water and collect samples. Currently the service is provided at no cost to you. Field trip grants are available, and donations are gratefully accepted!

Entrée Selections

- D Physical: site survey, habitat analysis, velocity/discharge
- □ Chemical: testing for dissolved oxygen, pH, nutrients, temperature
- □ Biological: collecting, observing, and identifying invertebrates
- $\hfill\square$ Inclement weather in class-alternative: stream simulation



Students collecting a sample of invertebrates

20 – 25 mins
15 – 20 mins
30 – 40 mins
30 - 90 mins*

* In the event of inclement weather or unsafe field conditions, all field activities can be simulated in the classroom

Dessert Course: Classroom and Virtual Space

Rounding out the meal is a teacher and FOFR Educator led data interpretation and data posting to a virtual public forum based on needs/wants of school and teacher.

Dessert Selections

- □ Data verification and analysis: viewing pictures, discussion of finds 15 20 mins
- □ Slide show: human impact on environment, what does our data mean?
- Developing and sharing a deliverable: a scientific report,
 a piece of literature, a fine-arts interpretation... the sky is the limit!
- Stewardship activities: discussion on follow-up field work, project ideas,
 5 15 mins citizen involvement







10 - 20 mins

open-ended

Web Links

A guide to the stream monitoring protocols employed in the field: <u>https://friendsofthefoxriver.org/get-involved/monitoring/</u>

Ask us about sending you a PDF demonstrating our formal educations programs alignment to the Next Generation Science Standards (NGSS).

The Fox River Watershed from its headwaters near Waukesha, WI to its confluence with the Illinois River in Ottawa, IL