

TIC Alphabetical Activity List

Activity	Source	Page	Content Summary	Standards
1 A Snapshot in Time	HWHP	61	Investigate water quality data to illustrate the differences between a one-time snapshot sample and monitoring samples over time and space.	3.2.7.B, 3.2.10.B, 4.1.7.B, 4.1.12.C
2 Aquatic Adventures	PFBC	55	Examine living/non-living components of a stream; create food chains	4.1.4.C, 4.6.4.A
3 Be a Friend to Fishes	PFBC	61	Develop fishing regulations and compare to the actual regulations	4.1.4.C; 4.6.4.A
4 Branching Out	WET	129	Construct a watershed model and simulate water flow	3.1.7.B, 4.1.7.B
5 Build a Watershed	PFBC	1	Construct a watershed and simulate water flow	3.1.7.B, 4.1.7.B
6 Dam Design	PFBC PWA	103 179	Identify the effects of dams on salmon or shad migration; design a dam that is appropriate for salmon survival	4.7.7.C, 4.8.7.D, 4.8.10.C
7 Designing a Habitat	PWA	19	Identify components of habitat that are essential for most aquatic animals to survive; design a habitat suitable for an aquatic organism to survive in an aquarium	4.1.7.C
8 Dirty Water	LIW	109	Compare soil erosion in vegetated & non-vegetated surfaces; examine the effects of soil erosion on nitrate levels and turbidity in water	3.4.7.A, 4.1.7.B, 4.3.7.B
9 Dragonfly Pond	PWA	184	Evaluate the effects of different land uses on wetland habitats, and discuss changes to minimize damaging effects on wetlands	4.3.7.B
10 Drop in the Bucket	WET	238	Describe the distribution of water on Earth and calculate amount of available fresh water	3.5.4.D, 4.7.4.A
11 Estimating Fish Populations	PFBC	63	Using beans to represent fish, apply a mathematical model to estimate a population of fish in a waterway	2.2.11.B, 3.1.10.B, 3.7.10.B
12 Fashion a Fish, Pennsylvania Style, Fashion a Fish	PFBC, PWA	24, 56	Design a fish adapted for an aquatic habitat; survival adaptations	4.7.4.A,B, 3.3.7.A, 4.1.7.C, 4.7.7.B
13 From H to OH	HWHP	15	Simulate acid/base solutions and determine the pH of solutions	3.2.7.B, 3.4.7.A
14 Getting To Know your local Fish	PFBC	58	Create dichotomous keys to identify fish	3.3.7.A
15 Go Fish	PFBC	36	Identify habitat components and factors that influence carrying capacity; define limiting factors.	4.6.7.A, 4.6.10.A
16 Grab a Gram	HWHP	29	Introduction to water quality measurements, such as ppm and mg/L	2.3.5.A, 3.7.7.B
17 Guess Who's Coming to Dinner	PFBC	37	Role play members of aquatic foodchains to demonstrate how energy is passed from organism to organism; match organisms with their aquatic habitat	4.6.4.A, 4.6.7.A
18 Habi-Trout	PFBC	66	Determine if a stream site is suitable trout habitat	4.1.10.B
19 Hitting the Mark	HWHP	49	Investigate the concepts of accuracy and precision in data collection; learn the importance of writing detailed procedures	3.2.10.B
20 Home on the Range	PFBC	19	Identify the state and national range of fish species	4.6.7.A, 4.6.10.A
21 How Many Bluegills Can Live in This Pond	PFBC	78	Role play fish to demonstrate how food is a limiting factor to population size	4.6.7.A
22 How Wet is our Planet	PWA	121	Describe the distribution of water on Earth and calculate amount of available fresh water	3.5.4.D, 4.7.4.A
23 It's a Trout's Life	PFBC	74	Explore trout life cycle by playing a board game	4.1.7.C, 4.7.7.B

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24	Monitoring and Record Keeping	NJ	14	Collect data and monitor aquarium conditions and fish growth	3.2.7.B, 3.7.7.B, 4.1.7.C
25	Only the Strong Survive	NE	18	Describe how various factors affect egg and fry survival	4.6.7.A
26	Perch to Periscopes	PFBC	13	Compare features of a perch to a submarine; adaptations	4.7.4.A
27	Silt: A Dirty Word	PWA	176	Simulate how sedimentation changes a stream and its water flow; discuss sources of sedimentation and effects on aquatic organisms	4.1.7.B, 4.3.7.B
28	Stone Soup	HWHP	35	Model or investigate the buffering capacity of alkaline water	3.2.7.B, 3.4.7.A, 3.2.10.B
29	The Trout Body	NJ	19	Identify the features of a trout and how they help it function	3.3.7.A, 4.7.4.B, 4.7.7.B
30	There is No Point to this Pollution	HWHP	136	Analyze data to learn about the cumulative effects of nonpoint source pollution	4.1.7.B, 4.3.7.B, 4.1.12.C
31	This Fish has a Scale to Tell	PFBC	29	Examine fish scales to determine the age of the fish and discuss environmental factors that affect fish growth	4.1.7.C, 4.6.7.A
32	To Dam or Not to Dam	PFBC, PWA	105, 170	Evaluate the positive & negative effects of constructing a dam	4.8.7.C, 4.8.10.C
33	To Stock or Not to Stock	PFBC	90	Role play individuals with varying perspectives to evaluate the positive and negative effects of stocking a stream	4.8.7.D
34	Too Much of a Good Thing	LIW	118	Conduct an experiment to determine the effect of nitrates on aquatic habitats	3.2.7.B, 4.1.7.B
35	Trout Stream, By	PFBC	81	Draw an ideal stream habitat for a brook trout	4.6.4.A, 4.1.7.C, 4.6.7.A
36	Water Quality Monitoring, from design to data	HWHP	70	Analyze and interpret data to model the <u>process</u> of water monitoring; create a study design	3.2.7.B, 3.2.10.B, 4.1.12.C
37	Water Quality Windows	HWHP	164	Explore the different water quality ranges required for the survival of aquatic and marine organisms by interpreting water quality data	3.5.7.C, 3.5.10.D, 4.1.7.C
38	Water, Water Everywhere	PFBC, LIW	6, 12	Use charts or keys to identify types of aquatic habitats	3.5.4.A, 3.1.7.C, 4.1.4.A
39	Water We Eating?	PWA	83	Identify foods derived from aquatic sources and their geographic origins	3.5.4.D, 4.2.4.B, 4.4.4.C
40	What Trout Need	NJ	29	Discuss how an aquarium simulates a trout's natural environment	4.6.4.A, 4.6.7.A
41	When Will They Hatch	NE	23	Predict when eggs will hatch based on environmental conditions, (Note: Must get data appropriate for PA from PFBC)	3.1.7.B, 4.1.7.C, 4.6.7.A
42	Where Have All the Shad/Salmon Gone	PFBC, PWA	92, 166	Interpret data and analyze the effects of human activities and habitat changes on fish populations	4.7.7.B, C

***Sources**

- HWHP – Healthy Water, Healthy People
- LIW – Living in Water
- NE – Nevada Dept. of Wildlife, Trout in the Classroom
- NJ – New Jersey Department of Environmental Protection, Trout in the Classroom
- PFBC – Pennsylvania Fish & Boat Commission, WILD About PA Fishes
- PWA – Project WILD Aquatic
- WET- Project WET