BugWorks Work Sheet Answer sheet

Vocab Work Bank

Pollution, Rapids, Riffles, Aerated, Benthic, Macro, Invertebrate, Adaptation, Fluid Dynamic, Exoskeletons, Upriver, Larva, Pollution index, Taxa, Pollution Intolerant, Pollution Tolerant

Rapids A deeper, fast-flowing and turbulent part of the course of a river.

Macro Large enough to see with the naked eye.

Taxa A category, like a species or genus.

Adaptation A biological change that fits the organism to its environment.

Exoskeletons A rigid external covering for the body in some invertebrate animals.

Aerated The process by which air is circulated through, mixed with or dissolved in a liquid.

Benthic The ecological region at the lowest level of a body of water.

Invertebrate An animal lacking a backbone.

Larva The active immature form of an insect.

Pollution index A measure or classification of pollution.

Fluid Dynamic Streamlined shape that allows water to flow around easily.

Riffles A rocky or shallow part of a stream or river with rough water.

Upriver At or toward a point nearer the source of a river.

Pollution The presence of a substance or thing that has harmful or poisonous effects.

Pollution Intolerant Organisms that require good water quality to survive.

Pollution Tolerant Organisms that do not require good water quality to survive.

1. What are benthic macroinvertebrates and why are they important?

Benthic Macroinvertebrates are small animals living at the bottom of streams, rivers, and lakes. They are large enough to be seen by the naked eye and have no back bone.

Benthic Macroinvertebrates are important because we can use them to help identify if a water source is polluted or not.

1. What are some of the structural features we should look for to help with identification? How do these underwater creatures breathe?

The Riffle Beetle carries atmospheric oxygen in tiny air bubbles at the end of its abdomen. Some macros have a large gill surface to help them breath. Some benthic macroinvertebrates use a “snorkel” to breath atmospheric air in which they rely less on dissolved oxygen.

3) What are some factors in a stream and the surrounding area do you think affect the quality of life in the water positively or negatively? Why?

Ie. Are there any factories or businesses around the area? If there are, are there any chemicals or products making there was into the stream. Do you see any pipes entering the stream? This can cause a negative effect on the quality of life in the water.

Besides Benthic Macro Invertebrates, some animals such as the common loon are an clean water indicator species.