**If You Were A Fish Handout**

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| **Stream Habitat (Google Boxes)**  **Use your vocabulary to record observations about each stream in the box below.** | |
| **Stream A**  **Carbondale Photo:**   * Riparian Zone is full of trees * Left of stream looks healthy * Right of stream looks unhealthy * The unhealthy stream and healthy stream meet * There looks to be chemical pollution * Water is orange and there is white looking material in the stream   This stream has Acid Mine Drainage.  \*\*Other lesson plans are available to learn about AMD and its effects on water quality.  This is the “unhealthy stream”. | **Stream B**  **Waterloo Photo:**   * No evidence of pollution in water * Trees are providing shade to the water which keeps water cool * There is some pieces of woody debris downstream that can add stability to the stream and provide organic matter for bugs and fish (habitat and food) * Exposed roots in the water provides habitat space for fish and bugs   This stream is the “healthy stream”. |
| **Biology (Microscopes)**  **Record which bugs are present in each stream and describe what their presence means about the stream.** | |
| **Stream A**  Students should write the bugs observed in the macroinvertebrate jar.  Students should write down relative sensitivity to pollution.  Results should indicate that there are few bugs, if any that are sensitive to pollution. | **Stream B**  Students should write the bugs observed in the macroinvertebrate jar.  Students should write down relative sensitivity to pollution.  Results should indicate that there are more bugs sensitive to pollution in this sample. |

Write a paragraph summarizing the results of each activity. Please include specific details from the collected data and make a statement about the health of each stream. Which stream based on the activities is the healthiest, and why? If you were a fish, which stream would you want to live in?

In the activity we looked at different photos of streams and the bugs found in the streams. River B seemed healthier and had a healthy riparian zone. It also had wood pieces in the river where bugs could hide.

If I were a fish I would want to live in stream B. Stream B is the healthier stream. I know this because Stream A has orange pollution in the channel, which is an obvious reason I would not want to live there if I was a fish. There are also fewer bugs that are sensitive to pollution in Stream A, which suggests that there is pollution and that the pollution is harmful to bugs, and probably fish. Furthermore, fish need plenty of bugs to eat, and I don’t think that there are many bugs in Stream A. Overall Stream B is the better stream based on the two activities.