Sources of Mercury 1 Factories and mines add mercury to rivers. Hg Coal plants and volcanos add mercury to air. (mercury) Put 4 grey LEGO® bricks on the sources of mercury to represent 4 mercury atoms. Hg (mercury) 2 Rain and rivers wash the mercury into lakes and oceans. Move the mercury into the water. 3 Bacteria in the soil add carbon and hydrogen atoms to the mercury to produce methylmercury. **Build 4 methylmercury molecules.** Place them on their pictures. HgCH₃ (methylmercury)

Toxic Mercury in our Environment

5 Small fish eat a lot of plankton and

collect methylmercury in their bodies.

Move 2 methylmercury molecules

into each small fish.

7 When we eat a lot of big predator fish, methylmercury collects in our bodies and can cause problems! Move all 4 methylmercury

molecules into the human.

6 Big predator fish eat a lot of small fish. More methylmercury collects in the bodies of the big fish. Move all 4 methylmercury molecules into the big fish.

4 per big fish \longrightarrow 4 or more per human

Biomagnification of Mercury in the Food Chain

per plankton \longrightarrow 2 per small fish \longrightarrow

4 Plankton picks up

methylmercury from the soil.

molecules into the plankton.

Move the methylmercury

Human Health Effects