



Hinchingsbrooke School Science Department

KS3 Homework Task

Life and Living Processes HW3 – Mercury Pollution

Date set:

Date Due in:

On the following page is information related to the task. You may need to do additional research to achieve the maximum level possible.

- Answer all questions, if you use PowerPoint please print off and stick in your book
- Fill in your details below

Name:	Form:
Teacher:	Science Set:

Feedback from teacher:

Student comment:

Mercury pollution

More than 140 nations from around the world who attended the United Nations Environment Programme, have agreed to take action to control mercury pollution. Mercury is a metal that is released naturally into the environment by volcanic eruptions and from rocks and soils, but most of the mercury pollution comes from human activities.

Both burning coal and burning waste materials releases mercury, as developing countries does the method of gold mining used in some countries. Crushed rock and mud containing tiny gold particles is washed with mercury, of gold and practice has led to large amounts of mercury being washed into water systems.



A coal power plant (iStockphoto)

Mercury pollution in the environment is dangerous because the mercury combines with carbon and hydrogen to form methylmercury compounds that damage the central nervous system of humans and other animals, causing numbness, tiredness, vision, hearing and speech problems, and eventually death. Those most at risk are developing foetuses, young children and people who eat a lot of fish. Animals that prey on fish, such as mink, otters, seals, whales, eagles and osprey are also badly affected.

The 140 countries have agreed on a range of measures that include better facilities for storing unused mercury, reducing the amount of mercury being mined and the amount used in gold mining, paper-making, plastics production, high-intensity lamps and thermometers.

QUESTIONS

Write the chemical symbol for mercury.

Find out one property of mercury that makes it unusual for a metal.

How is mercury released naturally into the environment?

Describe, in your own words, how mercury is used in gold mining, and why.

Describe how mercury affects people and give details of who is most at risk.

Choose one of the ways given for using mercury, and find out more about it.

Challenge

Mercury is a cumulative poison. It is hard for the body to eliminate, so repeated exposure to mercury leads to mercury levels building up in the body. Use your knowledge of food chains to link this to the animals most badly affected by mercury.