**Get the Lead Out!**

Instructions for Play

Number of Players: 3-4

**Setting up the game**:

1. Place the **Get the lead out!** question cards, question side up, in the

 appropriate box.

2. Place the **Chance** cards, chance side up, in the appropriate box.

3. Each player selects a marker and places it above the top box of a lead level

 monitor, on the word "Start".

**Object of the game**: Be the first to move your marker to the bottom of your lead

 level monitor.

**How to move**:

The shortest player goes first. The person to the right of the first player goes next

 and so on.

Take only one turn at a time.

1. Take the top question card and read the question out loud. Say the answer. Then turn over the card and read the answer out loud. If you are unable to answer, pass the question to the next player.

2. If you are correct, move your marker one block down on the lead level monitor.

3. If you are incorrect, do not move your marker.

4. If after answering your question correctly you land on one of the blocks marked "C", pick up a chance card and follow the instructions on the card. (If the card makes you move beyond the "start" sign, you do not have to go any farther than the "start" sign.

5. Place the card that you used on the bottom of the pile. Your turn is over.

**How to win**: The first player to reach the bottom square of their lead level

 monitor wins.

(Copyright 2005 by Edison Freire, Ingrid Waldron, Jennifer Doherty and Raha Ghafurian, Department of Biology, University of Pennsylvania. Teachers are encouraged to copy this student handout for classroom use. A Word file (which can be used to prepare a modified version if desired), Teacher Preparation Notes, comments, and the complete list of our hands-on activities are available at http://serendip.brynmawr.edu/sci\_edu/waldron/. )

**Get the lead out!**

Why is it important for everyone to know about lead poisoning?

**Get the lead out!**

What are two common ways that lead has gotten into dirt around houses?

**Get the lead out!**

How does lead get into drinking water?

**Get the lead out!**

Why shouldn't you store food in

ceramic dishes or opened cans?

**Get the lead out!**

What is the main source of lead exposure for infants?

**Get the lead out!**

What is the cheapest way to reduce lead poisoning from tap water?

**Get the lead out!**

What part of the body is most easily damaged by lead?

**Get the lead out!**

How can fixing up an old house lead to lead poisoning?

**Get the lead out!**

A person who has not been exposed to lead for a long time can still have lead in her blood. Where does it come from?

**Get the lead out!**

Why shouldn’t you boil the water used for drinking or making baby formula?

**Get the lead out!**

What is the main source of lead exposure for toddlers and young children?

**Get the lead out!**

Why are window frames and window sills a problem in lead poisoning?

**Get the lead out!**

Food high in \_\_\_\_ and \_\_\_\_\_ can help protect a person from lead poisoning.

**Get the lead out!**

If you think your home has a lead problem what changes should you make in how you dust?

**Get the lead out!**

Name two foods that are high in the iron needed to help protect children from lead poisoning.

**Get the lead out!**

Name two long-term problems that can result if a child has high blood lead levels.

**Get the lead out!**

Why should children wash their hands often?

**Get the lead out!**

Name two foods that are high in the calcium needed to help protect children from lead poisoning.

**Get the lead out!**

Why can’t you tell if you have lead poisoning?

**Get the lead out!**

What is the only sure way to find out if a person has lead poisoning?

**Get the lead out!**

Who should be tested for lead poisoning?

From old lead water pipes, from copper pipes that are joined together with lead solder, or brass or bronze faucets.

Lead goes down one level.

From old paint chipping off houses and from gasoline (which used to have lead in it).

Lead goes down two levels.

It is one of the most common environmental health problems in the United States.

Lead goes down one level.

Use the cold water tap, and let the water run until it gets as cold as it will get.

Lead goes down one level.

Baby formula made with water contaminated with lead from lead pipes or pipes with lead solder.

Lead goes down one level.

Brightly colored, handmade dishes, or those made in other countries may have lead in their glaze. Some cans that come from other countries also contain lead.

Lead goes down one level.

Lead stored in bones is slowly released and can increase blood lead levels, especially if a person does not have enough calcium in her diet or if a woman becomes pregnant.

Lead goes down one level.

Fixing up an old house can produce lead paint dust which is breathed in or gets on a child’s hands, which he puts in his mouth.

Lead goes down one level.

The brain.

Lead goes down one level.

The paint on window frames or sills often contains lead. Opening and closing windows loosens paint chips and creates dust with lead in it. Children can easily reach window sills.

Lead goes down two levels.

Putting fingers or toys that have paint dust on them in their mouths, or eating paint chips.

Lead goes down one level.

Boiling water increases the concentration of lead.

Lead goes down one level.

Red meat, tofu, collard greens, baked beans, fortified cereals, spinach, liver, raisins.

Lead goes down two levels.

Use a wet rag and mop instead of a dry one when you clean, and clean more often. Do not use the rags for anything else, and do not rinse the rags or mop in the kitchen sink!

Lead goes down two levels.

Iron and Calcium.

Lead goes down two levels.

Milk, yogurt, cheese,

cooked greens.

Lead goes down two levels.

They play in the dirt, touch things that might have lead dust on them, and then put their hands in their mouths.

Lead goes down one level.

Lower I.Q., problems learning, reading, and paying attention, behavioral problems.

Lead goes down two levels.

Children under the age of six and pregnant women.

Lead goes down one level.

Get a blood test.

Lead goes down one level.

Often there are no symptoms, and if there are symptoms these are also symptoms for other common health problems.

Lead goes down one level.

**CHANCE**

**CHANCE**

**CHANCE**

**CHANCE**

**CHANCE**

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**CHANCE**

**CHANCE**

You clean your house often with a wet rag and mop.

Lead goes down one level.

You run the cold water tap a few minutes before getting water to make baby formula.

Lead goes down one level.

Since you are exposed to lead at work, you leave your clothes at work and shower before coming home.

Lead goes down one level.

You or other people in your family smoke cigarettes.

Lead goes up one level.

You put grass or other plants where there was bare soil, so children aren’t exposed to the dirt which may contain lead.

Lead goes down one level.

Your children wash their hands after they play and before they eat.

Lead goes down one level.

You give your children red meat, tofu, collard greens, beans, fortified cereals, spinach, liver, raisins, and other foods high in iron.

Lead goes down one level.

You give your children low fat milk, yogurt, cheese, cooked greens, and other foods high in calcium.

Lead goes down one level.

You don't clean your children’s toys regularly.

Lead goes up one level.

You make a sandbox and fill it with clean sand so your child won’t play in the dirt.

Lead goes up one level.

You have never gotten your children tested for lead.

Lead goes up one level.

You scrape, sand, or burn paint from the doors, stairs, and window frames of your home.

Lead goes up one level.

You (or your wife) are pregnant. You get your blood lead levels tested and eat lots of foods high in calcium.

Lead goes down one level.

Your children don’t wash their hands when they come in from playing outside.

Lead goes up one level.

You cook in water from the hot water tap.

Lead goes up one level.

You drink out of a pottery mug that has a glaze made with lead.

Lead goes up one level.

You clean your shoes or take them off as you enter your home, so you don't bring in dust that may contain lead

Lead goes down one level.

You and your family use folk remedies that contain lead, like Litargirio, Arzacon, Greta, and some types of Ayurvedic herbal medicines.

Lead goes up one level.

You boil the water you use to make baby formula.

Lead goes up one level.

You cover the peeling paint on the window sill with duct tape.

Lead goes down one level.

You clean up any paint chips in your home immediately.

Lead goes down one level.