

Lead Education Lessons



Grades 4 and 5

Unit: Lead Education
Lesson One



Grade Level: Fourth /Fifth

Title: The History of Lead and More About Lead

What You Need to Know:

This lesson will give the student background information on the uses of lead.

Materials:

- Student copies of "The History of Lead" and "More About Lead"

Procedure:

- Read through "The History of Lead" with students. Have students answer the questions, then correct with class.
(Answers: Lead is a very soft, heavy, gray metal. It was used because it is easy to make into shapes. The words that should be circled are - paint, lotion, boat anchors, makeup, stained glass windows, dishes, coins, decorations, bullets.)
- Read through "More about Lead" with students. Have students answer the questions, then correct (Answers: Yes; any four of the following answers-Homes that were built before 1878 can have paint on the walls and the wood work, there can be lead in the dust inside the house, the dirt outside of the house and paint chips that flake off of the woodwork and walls, in crystal glassware, batteries, the glaze on some dishes from other countries, stained glass windows and even in some jewelry. Even water can have lead in it because lead solder was used on older water pipes that are still in buildings today.
- Extending activity - Have students collect or make a list of things from home that they think might contain lead.

Name _____

The History of Lead

Since the beginning of time, human beings have used natural resources to make their everyday lives more comfortable. Early people used caves for shelter. They used rocks and sticks for tools, weapons and preparing food. Later, people used clay, wood and metals to make into bowls, spoons, and many other useful items.

One of the metals that people often used is called lead. Lead is a very soft, heavy, gray metal that is easy to make into shapes. Ancient people, such as the Egyptians, Romans and Greeks, found many uses for lead. Lead was used for making decorations, coffins, paint, makeup, body lotion, boat anchors, coins and weights for fishing nets. In fact, the ancient Romans even used lead in the pipes that brought water from the river into their cities.

As time went on, countries in Europe used lead for pewter dishes, cannon balls, bullets, stained glass windows and drawing instruments. Later, as the pioneers crossed our country, many settlers went in search of lead to mine. Whole towns sprung up where lead was mined to use for the shiny coating on dishes and soldering metals together.



From what you have just read, answer the questions below.

What is lead? _____

Why do you think lead was used so much through history? _____

Circle the things that the article said that lead has been used for .

paint lotion boat anchors makeup stained glass windows
dishes clothing coins decorations bullets flags plants

Name _____

More about Lead

About 150 years ago, people started to become concerned about lead. They wondered if lead might be causing some health problems for people. Some countries in Europe stopped putting lead into their paint. The United States, however, continued to use lead in paint, gasoline, batteries, food cans and pesticides. Around the 1970's, the United States started to look at using less lead. Lead free gasoline was developed and the use of lead based paint was made illegal for home use in 1978.

Unfortunately, lead is still all around us. Homes that were built before 1978 can have lead based paint on the walls and the woodwork. So there can be lead in the dust inside the house, in the dirt outside of the house and in paint chips that flake off of the woodwork and walls. Lead is still used in crystal glassware, batteries, the shiny glaze on some dishes from other countries, stained glass windows and even in some jewelry. Lead is used in colored ink for newspapers, wrapping paper and some comic books. Lead based ink is used on the colored wrappers of some foods, like bread! Even our water can have lead in it because lead solder was used on older water pipes that are still in houses and buildings today. Lead can be in dirt from outside. due to paint chips and leaded gasoline.



From what you have just read, answer the questions below.

Is lead still around us? _____

Name four things which might contain lead today.

What is a paint chip? _____

Bonus: Find out if your home was built before 1978. Be ready to explain to your family why you are asking.

Unit: Lead Education
Lesson Two



Grade Level: Fourth /Fifth

Title: "What's the Problem with Lead?"

What You Need to Know:

This lesson will give the student background information on the dangers of lead.

Materials:

- Student copies of "What's the Problem with Lead?" and "Lead's Say This"

Procedure:

- Read through "What's the Problem with Lead?" with students. Have students answer the questions, then correct with the class. (ANSWERS-Toxic means poisonous; birth defects, illness or death, headaches, learning problems, stomach cramps and feeling very tired. In their own words students will say some of the following - Lead gets into the body through the mouth (ingesting) or by breathing (inhaling). Some ways that people ingest lead are: putting unwashed fingers or objects into the mouth, eating paint flakes or chips, drinking water that has been exposed to lead in the water pipes, and sucking on jewelry or other metal objects. People can inhale lead just by breathing in air that has lead dust.) Discuss as time allows.
- Give the students copies of "Lead's Say This" for homework or additional class work.

Name _____

What's the Problem with Lead ?

So what is the problem? The problem is that lead is very toxic. Toxic means poisonous. If lead gets into a human body, it causes many health problems. Lead can cause birth defects, illness or death when it is eaten, drunk or inhaled. People who have lead in their bodies can find it hard to concentrate and learn new things. Sometimes they get headaches, stomach cramps and feel very tired.

You may wonder how lead gets into people's bodies. Actually, it can happen pretty easily. Lead gets into the body through the mouth (ingesting) or by breathing (inhaling). Some ways that people ingest lead are by: putting unwashed fingers or objects into the mouth, eating paint flakes or chips, drinking water that has been exposed to lead in the water pipes, and sucking on jewelry or other metal objects. People can inhale lead just by breathing in air that has lead dust.

To help prevent lead poisoning, keep your hands and other things that are not food out of your mouth. Also, remember to wash your hands before you eat. Here's a trick to remember - if you use soap and wash your hands while you quietly sing the alphabet, you will know that you have washed your hands long enough to get them clean !



From what you have just read,
answer the questions below.

The article says that lead is toxic. What does toxic mean? _____

What kinds of health problems can be caused by lead? _____

Explain in your own words, how lead can get into people. _____

Bonus: Design a poster to show proper hand washing on the back of this paper.

Name _____

Lead's Say This!

Finish the following conversations with the word choices below to provide the best advice for avoiding lead poisoning .

1. "Remember not to put that neck chain you're wearing into your mouth ", Father mentioned to Pierre. "Oh yeah," said Pierre. "I almost forgot that there could be some _____ mixed into the metal in this chain !"

2. Baby Bobby dropped his bottle on the floor. Maria knows that there can be lead particles you can't see in dust. She says to the crying baby, "Let me _____ that bottle off for you, Bobby, and then you can have it back."

3. Ouch! Jack's pencil is sticking into his hand. It happened when he reached over to keep it from rolling off the desk. His class just studied the dangers of lead, now he is worried that he has a lot of lead in his body. Mary says "Let's get that pencil out and wash your hand. Don't worry, pencil lead is now made from _____."

4. Xai is helping his little niece Teng stack blocks on the living room floor, when his mother says that supper is ready. Xai says, "Come on, Teng, Let's _____ . Then we'll go eat dinner."



.....
Choose the right word or words to complete each sentence.

graphite frog wash our hands wash lead calcium

.....

Bonus : Write and illustrate a conversation of your own on the the back of this paper to help people remember how to be safe from lead poisoning.

Unit: Lead Education
Lesson Three

Grade Level: Fourth /Fifth

Title: Food Fight



What You Need to Know:

This lesson will give the student more information in lead education by learning ways of eating certain foods to prevent or diminish the impact of lead poisoning. Then "Be Safe in These Situations" will provide a review of information covered.

Materials:

- Student copies of "Food Fight", "Food Fight Word Search" and "Be Safe in These Situations"

Procedure:

- Explain to students that eating certain foods can help to prevent lead from finding a home in our bodies.
- Read "Food Fight" with students and explain what students need to do to complete the activities. Correct with students.
- Discuss good eating habits, emphasizing the foods mentioned in the lesson. Give the students this scenario and ask them for their thoughts:
Jose' spent all afternoon outside reading his favorite comic books. Now he's ready for a drink. He washes his hands carefully, because he knows that the colored inks in comic books contain lead. When he gets to the refrigerator, he sees soda, chocolate milk and water. What do think would be his best choice? Why? (Answer- chocolate milk because the calcium in the milk can help to fight lead poisoning)
- Extending activity - Students can do "What Would You Say?" in class or as a homework assignment.

Name _____

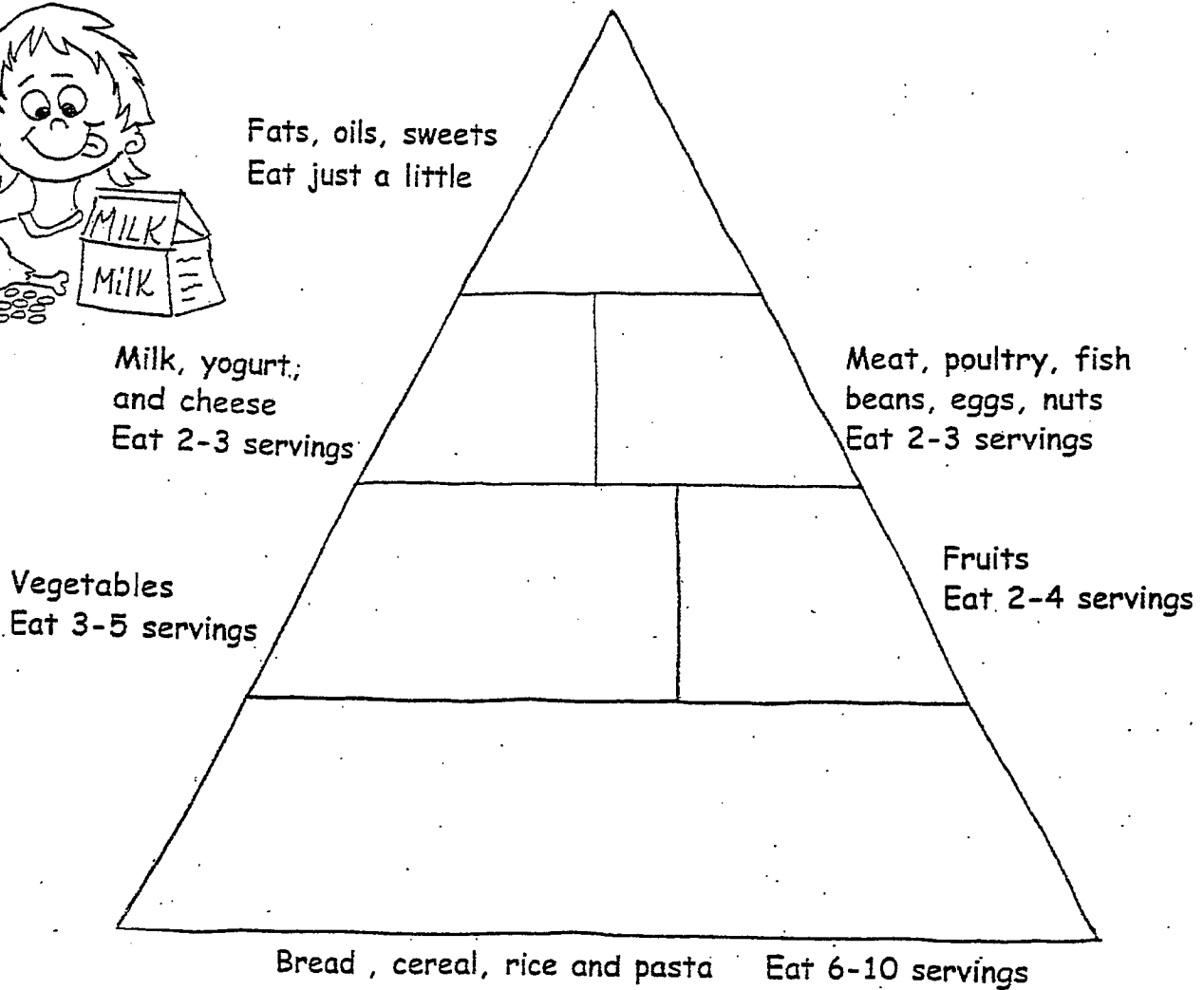
Underline or highlight the important facts as you read them.

FOOD FIGHT

Even if you are very careful, some lead might still get inside your body. Certain foods are able to fight how much lead your body will store by filling up the spots where the lead would go. When the minerals from these foods fill up those spaces, there isn't much room left for lead to do its damage.

The minerals that can fight lead getting into your bones are **calcium** and **iron**. Here are some foods that contain **iron** - *peanut butter, chicken, ham, beans, eggs, oats, molasses, chick peas, turkey, liver sausage, squash, spinach and dried fruits like prunes, raisins and apricots*. Some foods that are high in **calcium** are *milk, cottage cheese, cheese, yogurt and sardines*.

Draw a line from each food above to where it would be on the food pyramid.



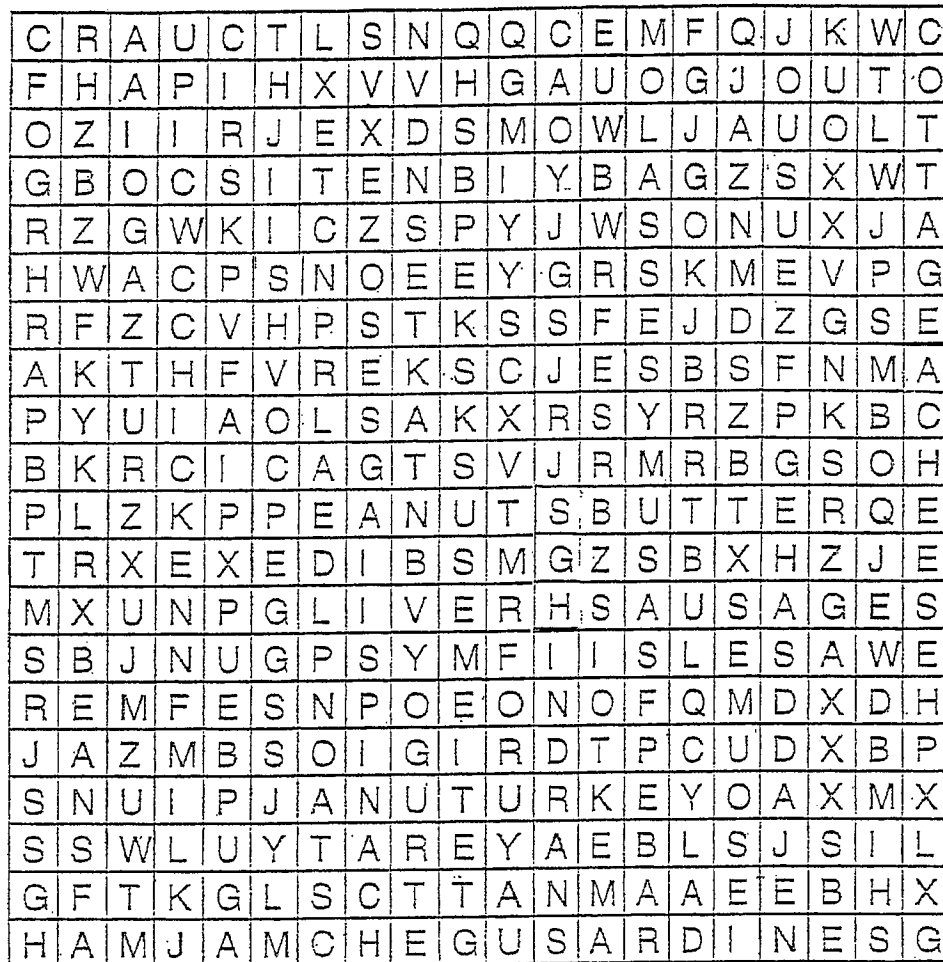
Bonus - Draw some of the iron and calcium foods on the pyramid.

Name _____

Food Fight Word search

SOME FOODS CAN FIGHT THE ABSORPTION OF LEAD!

- Find the foods that contain **iron** and mark them in red.
- Find the foods that contain **calcium** and mark them in yellow.



- 1) peanut butter
- 2) chicken
- 3) ham
- 4) beans
- 5) eggs
- 6) molasses
- 7) oats
- 8) chick peas
- 9) turkey
- 10) liver sausage
- 11) squash
- 12) spinach
- 13) prunes
- 14) raisins
- 15) apricots
- 16) milk
- 17) cottage cheese
- 18) cheese
- 19) yogurt
- 20) sardines



Bonus - What would be a good lead fighting food that you would enjoy?



Name _____

Be Safe in These Situations

Andre and Briana are helping their mother to clean the house, when they notice that the paint is chipping around the windows. They just learned at school that paint chips can have lead in them. What should they do?

Maria is making a peanut butter sandwich. She puts the bread on top of the plastic bread bag and starts to spread the peanut butter. When her mother comes into the kitchen, what should she tell Maria? _____

John is fishing with his grandpa. John needs to add some lead weights to his fishing line. He wants to use his teeth to close the weight around the fishing line. What should his grandfather tell him? _____

Sarah is babysitting for her nephew. She notices that he likes to suck and chew on the painted window sill in the living room. She just learned about the dangers of lead. What should she do? _____

Why do you think her nephew likes to suck and chew on the window sill? _____

Now, write a situation and solution of your own.

Unit : Lead Education
Lesson Four

Grade Level: Fourth/ Fifth



Title: Show What You Know about Lead

What You Need to Know:

This lesson is a review and classroom based assessment of what has been previously learned in this unit.

Materials:

- Student copies of Lead Test
- Optional overhead or student copies of the "Look Out for Lead word search"

Procedure:

- Review previously learned information. Give the multiple choice Lead Test. Test can be extended by having students tell what they have learned about lead in essay form on the back of the test or on an attached paper.
- Look over the "Look Out for Lead word search" with students and discuss the new vocabulary included.
- Have students do the word search as a class on the overhead or individually.

Name _____

Lead Test

Underline the **BEST** answer

1. Lead is
a. a hard metal b. a type of wood c. a soft metal d. a type of house
2. Throughout history, lead has been
a. used for many things b. a crop grown by Native Americans
c. found to be healthy for humans to eat d. a family pet
3. People who have lead in their bodies can
a. have a lot of headaches b. find it hard to concentrate and learn
c. have stomach cramps d. all of these things
4. One thing you can do to avoid lead poisoning is
a. never put things that are not food into your mouth b. only eat bread
c. never go outside d. don't talk to strangers
5. You can inhale lead dust. Inhale means
a. eat b. breathe c. see d. touch
6. Today, the gasoline we use in our cars is
a. free b. synthetic c. heavy d. lead free
7. The foods that are good for fighting lead have
a. vitamins b. sodium and iron c. calcium and iron d. iron and fat
8. A food that contains a lot of calcium is
a. milk b. carrots c. peaches d. spaghetti
9. A food that contains a lot of iron is
a. candy b. crackers c. ice cream d. spinach
- 10 Lead is toxic. Toxic means
a. nice b. cold c. healthy d. poisonous



Lead Essay Exam

Name _____

Explain the history of lead.

Why is lead dangerous?

Where can you find lead?

What can you do to avoid lead poisoning?

What else do you know about lead?

Rubric -

- 0 = unsatisfactory
- 1 = Below average understanding of the subject
- 2 = Average understanding
- 3 = Good understanding and explanations
- 4 = Excellent understanding and explanations



look out
FOR LEAD

LOOK OUT FOR LEAD

U N E V E R Y O L D B T N
 E C A V A P E H C Y S N D
 T S A L B D N A S E L E O
 M C Z X V S Z B Y F E M L
 N H T G I X W L S R A E E
 O I U S R E M O V E D T A
 T L S R U P F O D W I A R
 H D S U E D Y D E N K B N
 T R I H M T O T M L I A I
 L E C H A M A M O L M W N
 A N K O T R E W O R W I G
 E Z T V D H Y R D L O O F
 H I M G A S D N A H P D E

WINDOW
 YES
 LEAD
 CHILDREN
 PLOMO
 WATER
 HEPAVAC
 SANDBLAST
 BLOOD
 NEVER
 DUST
 WET
 LEARNING
 SICK
 HEALTH
 HANDS
 SUMMER
 REMOVE
 ABATEMENT
 DRY

 OLD
 NO

Most common location of lead dust.
 Answer to: can you prevent lead poisoning?
 What to look out for.
 People up to age 6 most likely to get lead poisoning.
 Word for lead Spanish.
 Sometimes carries lead from old pipes or solder.
 High efficiency particulate air filter vacuum.
 Not a safe way to remove lead paint.
 What you test to see if a person has lead poisoning.
 Amount of time lead is a natural part of the body; opposite of always.
 Lead in this spreads throughout the house.
 Opposite of dry. You should use a ____ mop to clean up lead dust.
 School activity affected and by lead poisoning.
 Kids with lead poisoning don't always look this way.
 Local government department with information on lead poisoning.
 What kids often put in their mouths after they touch lead dust.
 Season where open windows contribute most to lead poisoning.
 To get rid of lead, cover it, enclose it, replace it or _____ it.
 A way to reduce lead. Look for certified _____ contractors.
 Opposite of wet. Do not sweep or use a regular vacuum to clean up lead paint in this condition.
 Opposite of new; type of house more likely to have lead.
 Answer to the question: is lead poisoning the same as food poisoning?



Unit: Lead Education
Optional Lesson 1



Grade Level: Fourth /Fifth

Title: When You're In Charge

What You Need to Know:

As students get older they will be asked to supervise or babysit younger children. This lesson will help prepare them to look out for ways to prevent small children from coming in contact with lead.

Materials:

- Optional student copies of "Leroy Leadless" and "The Lead Free Rap".

Procedure:

- Ask students if they have ever been put in charge of watching smaller children. Have a class discussion on the things that they need to watch for when babysitting small children. Tell them that there is one more thing they want to watch for - LEAD. Remind them that small children like the taste of lead paint and paint chips because lead has a sweet taste. Lead can be in dust and will get on little fingers and toys. Little kids like to suck on fingers and toys, so it is important to wash often.
- Teach the students the "Lead Free Rap". Tell them that this rap will help them to remember what to do and that younger children will like it too, especially if they work out some actions to go with it.
- Let students practice the rap and actions in groups, and perform for the rest of the class.
- Optional - Have the class visit a kindergarten or first grade to teach the rap and talk about lead. .



Lead-Free Rap

Wash your hands, wipe your feet
Always have good things to eat
Stay away from peeling paint
Get your lead test, you won't faint
In your mouth don't put a thing
From the doctor good news you'll bring
A healthy lead-free kid you'll be
If you don't believe me, just try and see

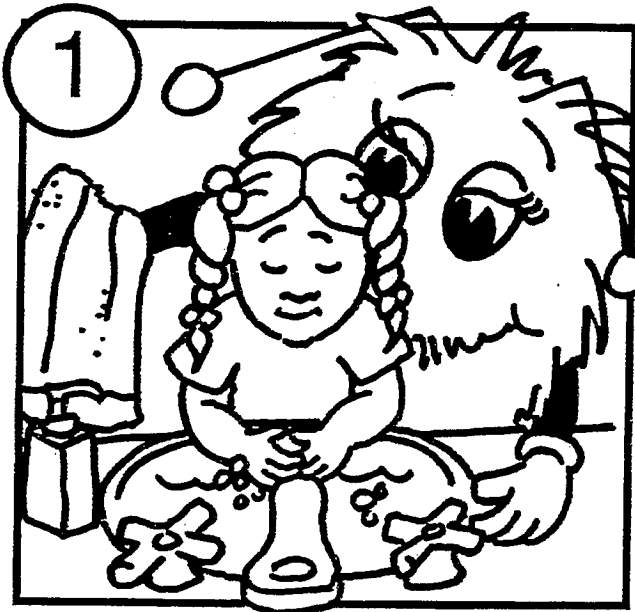


- Pat Williams-France

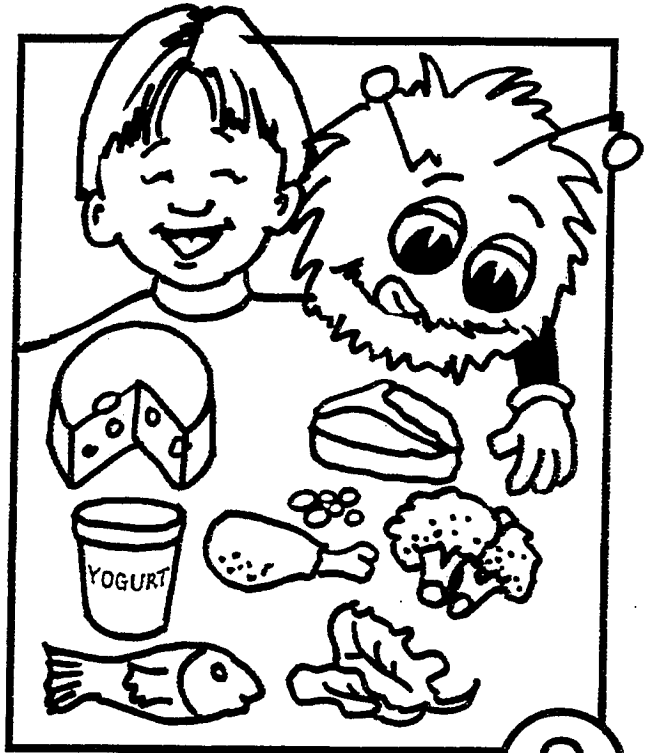
Leroy Leadless Lead-Free Rap*



City of Milwaukee Health Department
Childhood Lead Poisoning Prevention Program



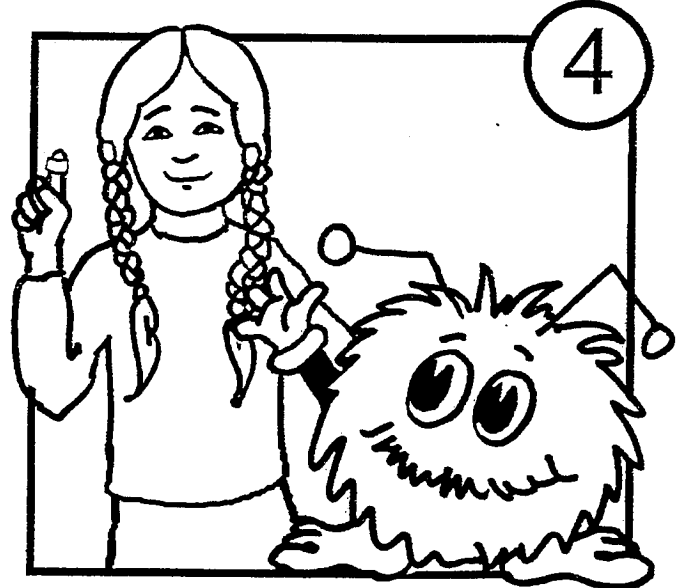
Wash your hands,
wipe your feet



Always have good
things to eat



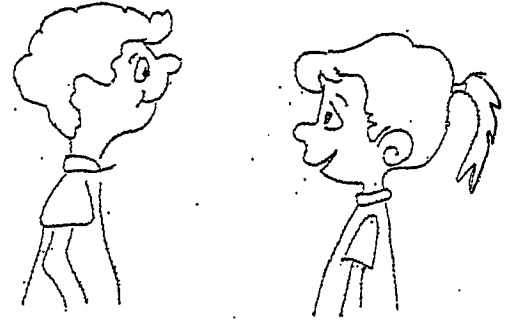
Stay away from peeling paint



Get your lead test,
you won't faint

*see other side

Unit : Lead Education
Optional Lesson 3



Grade Level: Fourth /Fifth

Title: "The Lead Detectors"

What You Need to Know:

This lesson will give the student more information in Lead Education by reading the parts in an educational and interactive play, "The Lead Detectors".

Materials: Students copies of "The Lead Detectors"

Procedure:

- Assign parts and read the play "The Lead Detectors" with students .
- Discuss as appropriate.
- Optional - Have students make a list of things they learned from reading the play.
- Optional -The two raps that are included with the play could be performed for parents or other classrooms.

THE LEAD DETECTORS

(A mystery regarding the dangers of lead.)

Authored by David Anderson

Music and lyrics by Joan Maute, Ed.D.

Music arrangement and keyboards by Jay Kellner

vocals by Shannon Duraski, Scott Gilchrist,

Megan Luke, Rebecca Melisi, and Doug Thompson

Poster by Bob Provost

Produced by Studio 2

Joan Maute Project Coordinator and Editor

This project was completed in collaboration with the University of Illinois-Chicago School of Public Health, Babette J. Neuberger liaison.

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Introduction

The Lead Detectors is intended to be listened to and/or performed by middle school students. It is a companion to *Let's Get The Lead Out*, an integrated learning unit on the dangers of lead. The curriculum, radio script, audio-tape, and a colorful poster are available free of charge from the U.S. EPA (see address below). Middle school students can take this very important information to local elementary school classes, day care centers, community centers, or parent-night meetings via a performance. The radio mystery/readers' theatre format allows the students to perform without scenery, props, costumes, or memorizing lines. The songs may be played from the tape using the recorded student voices, or performed by students using the musical accompaniment on side B. After the performance it would be very appropriate for the readers and/or singers to ask the audience for signs and dangers of lead poisoning and some preventative measures that can be taken to be "lead free."

You have permission to copy this unit for classroom/school use. For a copy of *Let's Get the Lead Out* please contact
U.S. EPA

attn: Publications

77 W. Jackson (P-19J)

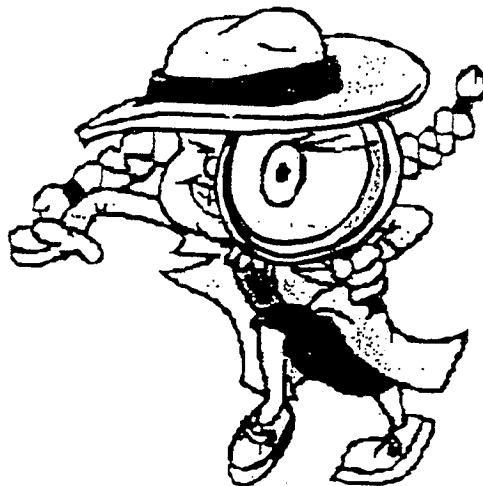
Chicago, Illinois 60604

or in the Midwest, call: 1-800-621-8431

Get the Lead Out

CAST OF CHARACTERS

- NARRATOR 1: Serves as one of the announcers of the story
- NARRATOR 2: Serves as one of the announcers of the story
- NARRATOR 3: Serves as one of the announcers of the story
- NARRATOR 4: Serves as one of the announcers of the story
- CHRIS: One of the three Lead Detectors, a detective searching out the bad effects of lead
- SAM: Another of the three Lead Detectors, a detective searching out the bad effects of lead
- FREDDY: Another of the three Lead Detectors, a detective searching out the bad effects of lead
- BILLIE: The older of the two siblings who ask the Lead Detectors for help.
- JO: The younger of the two siblings who ask the Lead Detectors for help.
- SPOT: The pet of Billie and Jo
- PROFESSOR: Professor Plumbum, author of the book, Detecting and Correcting Uses of Lead, exists to quote lines of his book as the Lead Detectors consult him as a reference.



Get the Lead Out

NARRATOR 1: You better watch out!

NARRATOR 2: It could be in the water!
(sound of gurgling water)

NARRATOR 3: On the walls!
(sound of knocking)

NARRATOR 4: In the air

NARRATORS 1-4: Whoosh!

NARRATOR 3: In the pipes
(sound of clanging pipes)

NARRATOR 1: In the cans
(sound of cans together)

NARRATOR 4: In the glass
(glasses knocking together)

NARRATOR 2: In the paper
(paper ripping)

ALL: So you better be careful

NARRATORS 1 & 2: How you breathe

NARRATORS 3 & 4: What you swallow!

NARRATOR 1: Lead could be

ALL: Everywhere!

NARRATOR 2: You need to call

ALL: The Lead Detectors!!!

NARRATOR 3: The Lead Awareness Broadcasting System and [insert name of group]

NARRATOR 4: Take great pleasure

NARRATOR 1: In bringing you

NARRATOR 2: Another transcribed adventure of

ALL: The Lead Detectors!

NARRATOR 4: Starring:

CHRIS: Chris Wee

SAM: Sam Findet

FREDDY: And Freddy Goode

NARRATOR 3: Of the Lead Detective Agency:

CHRIS/SAM/FREDDY: Wee, Findet, and Goode

NARRATOR 1: This week's episode is entitled:

ALL: Get the Lead Out

NARRATOR 2: On one dreary afternoon in the offices of the Lead Detectors,

NARRATOR 4: A timid knock is heard on the front door
(knocking sound)

CHRIS: Come in.

FREDDY: Ah, it's two kids and their dog!

SAM: What can we do for you?

BILLIE: Hello.

JO: We have a mystery for you to solve.

CHRIS: A mystery?

ALL THREE: That's our job!

BILLIE: Our dog, Spot,
SPOT: Woof!
JO: Has been acting really strange lately.
FREDDY: What has he been doing?
BILLIE: He hasn't been hungry.
SPOT: (makes sad dog sounds)
JO: He's been irritable
SPOT: (slight groan)
BILLIE: He doesn't play anymore.
SPOT: (little yip)
JO: He even bit the mailman.
SPOT: (slight growl)
BILLIE: And all he does is sleeps all day!
SPOT: (falls asleep and snores)
BILLIE/JO BOTH: We want our old spot back!
SAM: Sounds like it could be a serious case of lead poisoning to me.
CHRIS: Could you show us an example?
BILLIE: Okay. Jo, wake up Spot there.
JO: Wake up, Spot.
ALL: Wake up!
SPOT: Woof! (sleepily)
BILLIE: Here, Spot, catch this ball.
SPOT: Woof! Woof! (getting more excited)

JO: Watch this.

BILLIE: Here you go!

ALL: Catch it, Spot!

SPOT: Ow!

ALL: Oh!

CHRIS: He missed it!

FREDDY: It hit him right on the nose.

SPOT: Ow!

JO: He used to be able to catch that ball all the time.

BILLIE: Now he just wants to sleep all day.

SPOT: (snoring again)

BILLIE: And Jo and I have been acting strange, too!

JO: We always get in fights now.

BILLIE: No, we don't!

JO: Yes, we do!

BILLIE: We don't!

JO: Do!

BILLIE: Don't!

JO: Do too!

BILLIE: Don't too! (if more humor is desired; a fake spitting at each other could be continued here)

CHRIS: Hey!

SAM: Both of you

FREDDY: Are irritable!

BILLIE/JO: Sorry!

JO: Can you help all three of us?

SAM: Sure thing, kid!

FREDDY: - Okay, tell us, what have you done differently lately?

BILLIE: Well, we've gone to a different school.

JO: But Spot doesn't go to school with us.

BILLIE: And Jo is getting a D in English.

JO: Really, I was getting a B at my last school!

SAM: Hmm, why have you changed schools?

BILLIE: Because we moved to a new neighborhood.

FREDDY/CHRIS/SAM: Ah!

CHRIS: And you moved into a new home?

JO: That's right!

FREDDY: How old is your house?

BILLIE: I don't know. But my parents had to paint all the dirty walls.

SAM: Sounds like we better check out your home.

CHRIS/FREDDY: That's right!

ALL THREE: "Lead" us to your home!

NARRATOR 1: So our brave detective trio follow

JO: Jo

BILLIE: Billie

NARRATOR 2: and their dog Spot

SPOT: Woof! (sleepily)

NARRATOR 3: To their home to solve

NARRATOR 4: The mystery of the House of Lead!

(During this, the group members could act like they are riding in a car.)

[Possible place for a commercial or a song.]

NARRATOR 1: As the Lead Detectors pull up to the mysterious

NARRATORS 1-4: House of Lead

NARRATOR 2: They immediately notice that the front door has

CHRIS: A stained glass window.

SAM: A rare specimen

FREDDY: Most definitely made over 40 years ago

CHRIS: And put together with

ALL THREE: LEAD.

JO: Is that bad?

FREDDY: Well, lead has many good uses.

CHRIS: It is an easily bendable metal that can protect people from x-rays and other harmful radiation.

SAM: Because it's so soft, it has good uses, such as

FREDDY: Tin cans

CHRIS: And batteries

CHRIS: And sinkers for fishing lines

SAM: And stained glass!

FREDDY: But it can also be negative if people get lead into their bodies.

BILLIE: Like being filled full of lead bullets?

CHRIS: Well, bullets are made out of lead!

SAM: But we're talking about other ways of getting lead in your body.

FREDDY: People can get lead in their bodies by

GROUP: Breathing lead

GROUP: And swallowing lead.

JO: I would never eat lead!

ALL: Yuck!

SAM: Well, Jo, you may not know that you're eating it.

CHRIS: And once lead is in your body, it is a toxic substance that can

FREDDY: Make you very sick,

BILLIE: Like Spot is feeling?

JO: And it's making us so irri-, irri-

BILLIE: Irritable! No wonder you're getting a D in English!

SAM: That's right. It could be the cause.

CHRIS: And it takes a long time

ALL: To get the lead out

SAM: Of your body!

FREDDY: And because your house is over forty years old,

CHRIS: According to the age of the stained glass window,

SAM: Your house could be full of lead hiding in all places!

CHRIS: Just like this stained glass window is being held together by lead

FREDDY: Lead could be used in other places in your house as well.

JO: And hurt poor Spot!

BILLIE: And us too!

JO: So, that explains my bad grade in English!

SAM: Let's start with where your dog eats.

BILLIE: Okay, here's where we give Spot fresh water and good food.

CHRIS: Let's examine the dog's bowls more closely.

JO: My grandmother brought those back from her vacation.

FREDDY: Hmmmm, a nice ceramic bowl with a clear glaze.

SAM: Let's turn it over.

(sound of splashing water)

CHRIS: Hey, these are new shoes!

FREDDY: See,

ALL THREE: Made in Mexico!

SAM: Let's consult Professor Plumbum's book of "Detecting and Correcting Uses of Lead."

FREDDY: Here it is, according to the professor . . .

PROFESSOR [as a separate voice giving advice]: Many dishes made out of ceramic, especially made in foreign countries, can contain lead. Some dishes may even have a glaze made out of lead.

BILLIE: So Spot could be getting lead in his system by eating out of these dishes.

JO: Billie, didn't grandma give us the same type of glasses with our names on them?

BILLIE: That's right!

JO: What do we do?

CHRIS: Simple, just replace these ceramic dishes with a dish that you know doesn't contain lead,

SAM: Such as stainless steel for Spot.

CHRIS: And glass or plastic for you two!

JO: Will we all be better then?

FREDDY: Well, let's examine this house more closely.

CHRIS: Look at what is placed under the dishes.

BILLIE: Yeah, it's the Sunday's funnies.

JO: Mom doesn't like Spot to get food and water all over her

GROUP: Clean

GROUP: Kitchen

ALL: Floor.

SAM: Yes, but the professor has a good piece of information about colored newsprint.

PROFESSOR [continuing]: "Some colored inks, including those used on newsprint, contain lead."

BILLIE: Wow! I didn't know that.

JO: So, when Spot is being a good dog to clean up his food,

FREDDY: He could be picking up the lead from the ink on the newspaper.

BILLIE: That's easy! We won't put colored newspaper on the floor anymore.

CHRIS: And don't let the dog chew any funnies!

JO: Not even my Spiderman comics books!

SAM: And the professor even advises that

PROFESSOR: "Children should wash their hands after they have touched comics or comics books."

JO: I never knew that Spiderman could be so dangerous!

FREDDY: Next, we need to examine the water in this house.

CHRIS: Sam, do you have your handy dandy test kit for water.

SAM: I sure do, and it says that the water does contain high levels of lead.

BILLIE/JO: Oh, no!

BILLIE: What do we do?

FREDDY: Let's look in your basement.

BILLIE: Okay, right down here.

SAM: Look at these pipes,

CHRIS: Even though they are made of copper,

JO: Like pennies?

FREDDY: Yes, but the pipes are put together

SAM: Or soldered

ALL THREE: With lead!

CHRIS: According to the professor:

PROFESSOR: Lead was used as a common method for putting together the joints in pipes and in tin cans.

FREDDY: So, when the water sits in your pipes, the water gets high levels of lead in it.

JO: And I thought that only Colonel Mustard got hurt by lead pipes!

BILLIE: How can we solve this problem? My parents can't afford to put whole new pipes in the house.

SAM: There are many solutions:

CHRIS: Only use cold water for drinking or eating purposes

JO: Why is that?

FREDDY: Hot water pipes will more likely dissolve the lead into the water.

SAM: And let the water run for a few seconds to clear out the old water before you fill your dog's bowl.

BILLIE: Or we could give Spot only pop to drink!

SPOT: Woof!

JO: For us too!

CHRIS: No, but you could use bottled water

FREDDY: Or filter the water you have.

BILLIE: Those sound like good solutions!

JO: We must be more careful what we drink!

SAM: And if this an old house, there's a good chance that we have to be careful with the walls.

BILLIE: Really?

CHRIS: Has Spot been chewing on any of the walls or eating paint chips?

JO: The window sill!

BILLIE: Here, look at this!

SAM: Looks like teeth marks.

FREDDY: This could be deadly!

BILLIE: I know. Dad almost killed Spot when he saw that!

CHRIS: No. Freddy means that many painted objects can be deadly.

SAM: Professor Plumbum has written that . . .

PROFESSOR: Many old paints used to contain high amounts of lead in them. And lead can be ingested in the body . . .

SAM: Through eating paint chips

GROUP: Yuck!

CHRIS: Rubbing against painted surfaces.

FREDDY: Or breathing dust from painted surfaces.

BILLIE: Wow, so that could explain Spot being so sluggish and irritable.

JO: And we could be breathing the dust too!

BILLIE: Which is why we have been so IRRITABLE Jo!

JO: What do we do?

SAM: Have your house's paint inspected.

CHRIS: There are professionals who can take care of the lead paint.

FREDDY: And don't ever chew on painted surfaces or eat paint chips.

ALL: Yuck!!!

SAM: And make sure mom or dad cleans the floors, window frames, window sills, and other surfaces weekly

CHRIS: With warm water and a general all purpose cleaner.

FREDDY: Also, you children should wash your hands often,

SAM: Especially before you eat and before nap or bed time.

BILLIE: We're too old for naps!

CHRIS: But your baby sister isn't.

FREDDY: And mom or dad should keep your baby sister's play area clean by washing her bottles, pacifier, toys and stuffed animals often.

SAM: If you take care of all these things, your dog and the both of you should be better in no time.

BILLIE: And can we do anything to

GROUP: Get the lead out

JO: Of us?

CHRIS: It's a good idea to eat food with lots of calcium and iron

SAM: That should help chase out that lead very soon!

JO/BILLIE: Thanks, Lead Detectors.

CHRIS/SAM/FREDDY: Anytime, kids!

NARRATOR 1: And the Lead Detectors leave Billie, Jo, and Spot

NARRATOR 2: To take care of the house of lead.

NARRATOR 3: Soon to be unleaded!

NARRATOR 4: And remember kids,

NARRATOR 2: Be sure to

NARRATORS 1-4: Get the lead out!

NARRATOR 3: By being good lead detectors in your own houses.

NARRATOR 1: And eat foods rich in calcium and iron.

NARRATOR 4: Like Milk,

GROUP: Hmmmm

NARRATOR 2: Yogurt

GROUP: Yum

NARRATOR 1: Cheese

NARRATOR 3: And vegetables,

NARRATOR 2: And fruits

NARRATOR 4: And meats

GROUP: And fish!

NARRATOR 3: So that you can be healthy

NARRATOR 2: And free of lead

JO: And your dog too!

BILLIE: Catch, Spot!

SPOT: Woof!!

GROUP: Great catch!

SPOT: (muffled, as with ball in mouth) WOOF!

SAM: Sign Spot up with the Cubs!

BILLIE: I love my dog and Jo too!

JO: I love you too Billie!

CHRIS: Friends again!

SAM: Doesn't it make you feel good to see such lead-free kids!

JO: And I'm getting an A in English now!

NARRATOR 1: Stay tuned for another

NARRATOR 4: Exciting

NARRATOR 3: Transcribed

NARRATOR 2: Adventure of . . .

ALL: The Lead Detectors!

Make it Lead Free

Words and Music by Joan Maute

Lead can make sick; lead can make you feel down.
So you need to watch whenever lead is around.
Here are some simple rules to keep in mind.
Don't you forget them; do them all of the time.

Make it lead free, keep it lead free.
Make it lead free, keep it lead free.

You need to clean your floors; clean your window sills too.
You need to clean that door where the paint's chipping through.
Just get a good detergent, get some water and see
How you can help yourself and family to stay lead free.

Make it lead free, keep it lead free.
Make it lead free, keep it lead free.

Watch your younger sisters; watch young brothers also
Don't let them chew paint blisters, help them by saying "no".
And when they drop their bottles or their toys onto the floor
Make them nice and clean and wash them once more.

Make it lead free, keep it lead free.
Make it lead free, keep it lead free.

Wash your hands real often, 'specially before you eat
Or when they get real dirty, or you're ready to sleep.
Eat a balanced diet; eat the food that will stick.
Let the water run; drinking it won't make you sick.

Make it lead free, keep it lead free.
Make it lead free, keep it lead free.

Lead Rap

words and music by Joan Maute

We're the lead detectors and we're here to help you
'Cause keepin' you lead free is a thing we can do.
Lead can creep into your life and into your world.
It doesn't care if you're a boy or a girl.
So listen to us; hear what we're talkin' about
And together we'll keep or get the lead out!
get it out.....keep it out.....get it out.....keep it out

It can be in water comin' out of lead in pipes too;
It can be in paints and crayons things that little kids chew.

We're the lead detectors and we're here to help you
'Cause keepin' you lead free is a thing we can do.
Lead can creep into your life and into your world.
It doesn't care if you're a boy or a girl.
So listen to us; hear what we're talkin' about
And together we'll keep or get the lead out!
get it out.....keep it out.....get it out.....keep it out

You know air can get polluted from lead fumes or lead dust;
It can make you sick or cranky if you breathe it too much.

We're the lead detectors and we're here to help you
'Cause keepin' you lead free is a thing we can do.
Lead can creep into your life and into your world
It doesn't care if you're a boy or a girl.
So listen to us; hear what we're talkin' about
And together we'll keep or get the lead out!
get it out.....keep it out.....get it out.....keep it out

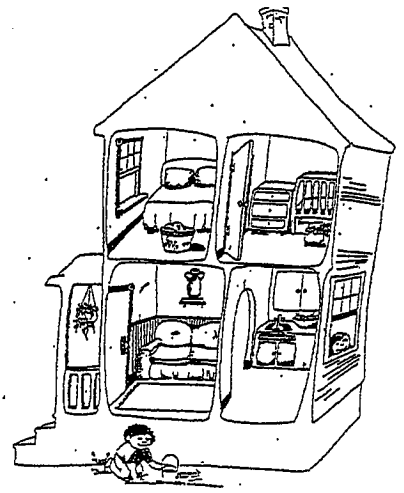
If lead gets in your body it gets in your bloodstream;
It travels through your systems gives you lead poisoning.

We're the lead detectors and we're here to help you
'Cause keepin' you lead free is a thing we can do.
Lead can creep into your life and into your world.
It doesn't care if you're a boy or a girl.
So listen to us; hear what we're talkin' about
And together we'll keep or get the lead out!
get it out.....keep it out.....get it out.....keep it out

You can help get the lead out be a lead detector too.
Spread the word, be alert. keep the lead out of you!

Come on; move it. Get the lead out!

Unit : Lead Education
Optional Lesson 2



Grade Level: Fourth /Fifth

Title: "Look Out For Lead"

What You Need to Know:

This lesson will give the students the opportunity to spot potential sources of lead contamination in a common home setting.

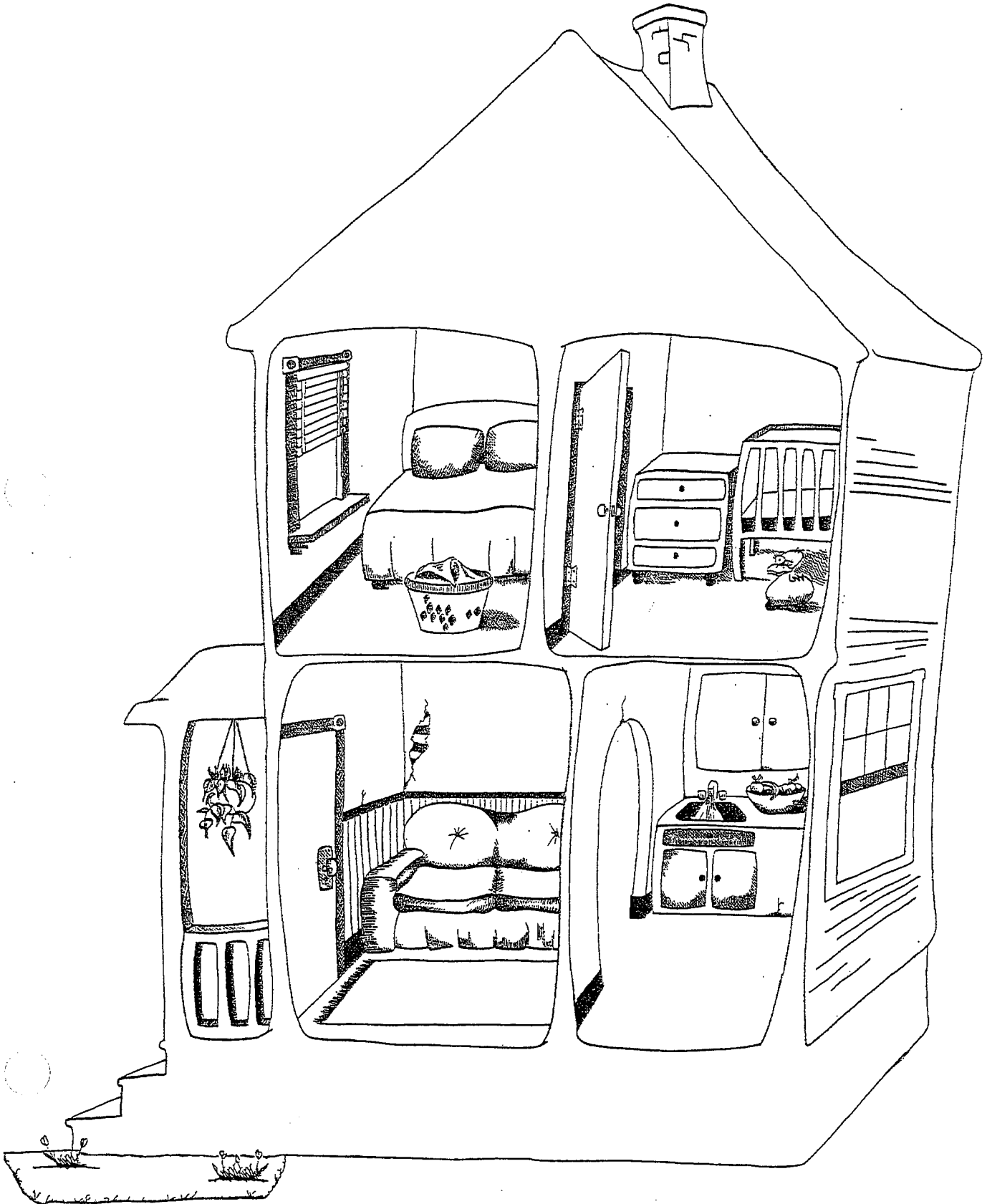
Materials:

- Students copies or overhead of "Look out for Lead "
- Optional - overhead of teacher answer key for correcting

Procedure:

- Tell the students to look closely at the picture and see how many possible sources of lead contamination they can find. Accept answers and discuss.
- See teacher answer key when correcting.
- Discuss findings with with the class
- Optional - Have students write informational articles or design posters and pamphlets using the information they have learned during their lessons on lead. Send these home to parents or post in school. These could be used as a display at a school's Open House, Parent Night or on Conference Days.

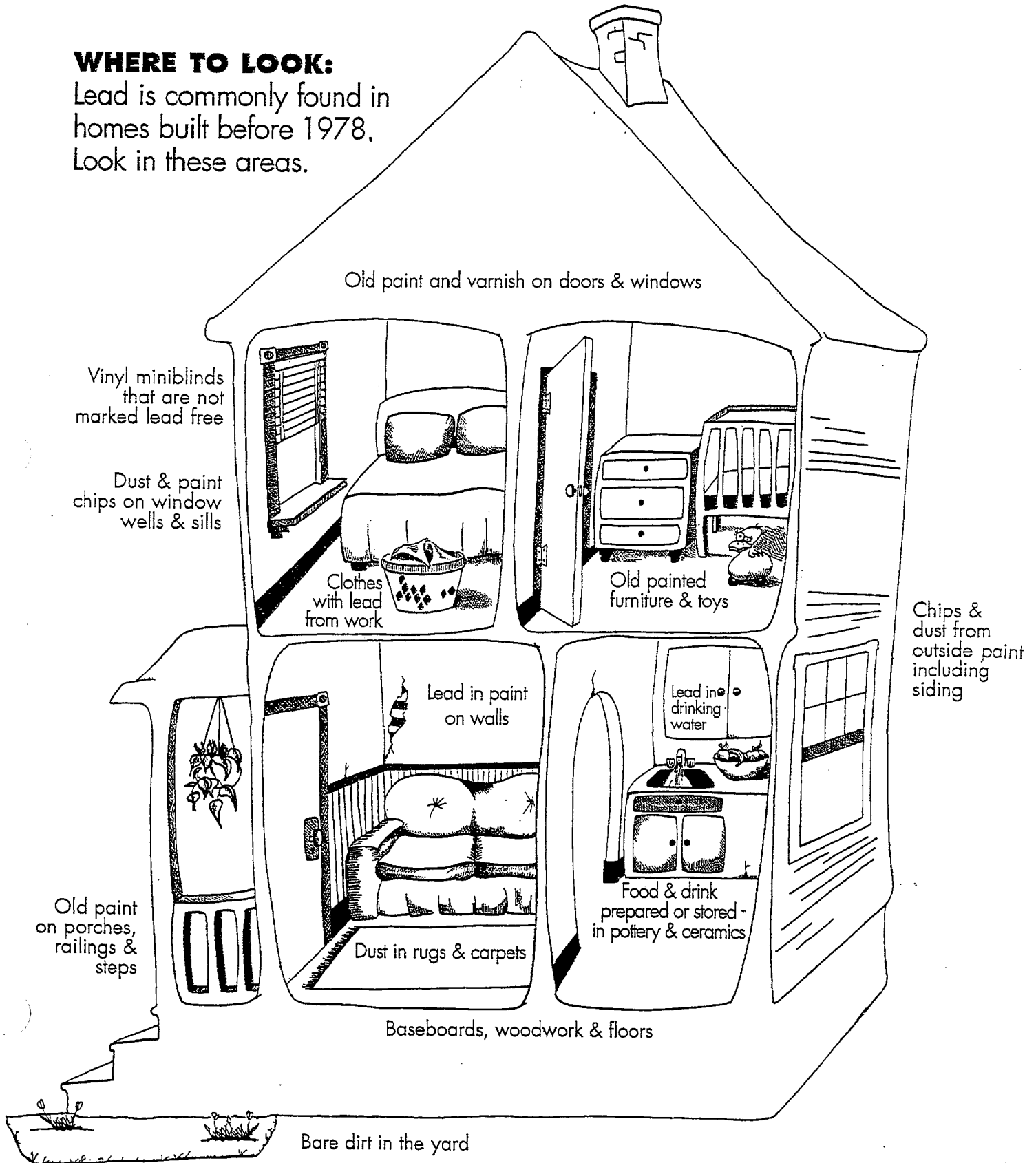
LOOK OUT FOR LEAD



LOOK OUT FOR LEAD

WHERE TO LOOK:

Lead is commonly found in homes built before 1978. Look in these areas.



TENGAN PRECAUCIÓN DEL PLOMO

DONDE PUEDE BUSCAR:

El plomo es comúnmente encontrado en las casas construidas antes de 1978. Busque en estas áreas.

Pintura vieja y barniz en las puertas y ventanas

Percianas que no están marcadas libres de plomo

Polvo y cascara de pintura en los marcos de las ventanas

Ropa de trabajo con plomo

Muebles y juguetes viejos pintados

Cascara y polvo de la pintura exterior incluyendo el entablado

Plomo en la pintura de la pared

Plomo en el agua potable

Pintura vieja en los balcones, barandillas y escaleras

Polvo en alfombras y carpetas

Comida & bebidas preparadas o almacenadas en recipientes de barro o ceramica

Marcos del piso, enmaderamiento y el piso

La tierra en el patio

