Concientización sobre el plomo

Sesión de capacitación para instructores

Esquema de capacitación para instructores

- Objetivos
- Introducción
- Material del plan de estudios
- *Infografía de acciones para reducir la posible exposición al plomo*
- Visite www.epa.gov/lead/tribal-lead-curriculum
- Preparativos: Demostración con el módulo 3
- Estrategias de enseñanza y discusión

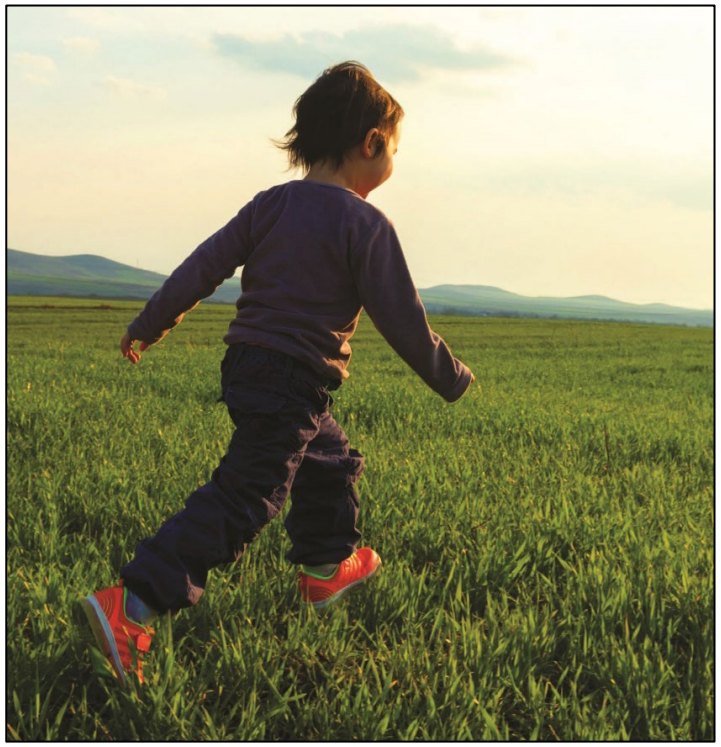
Objetivos

- Entender el propósito del plan de estudios y las acciones clave para reducir la exposición al plomo en la niñez
- Entender los componentes del plan de estudios
- Aprender a utilizar el material
- Discutir las estrategias de enseñanza y alcance público
- Compartir y discutir las mejores prácticas

Introducción

Propósito

- Aumentar la conciencia sobre la exposición al plomo en la niñez
- Ampliar la comprensión de los posibles impactos del plomo en la salud y las prácticas culturales infantiles
- Promover acciones que se pueden tomar para reducir o prevenir la exposición al plomo en la niñez



Destinatarios

Instructores

- Profesores
- Especialistas en divulgación
- Educadores
- Personal ambiental
- Trabajadores sociales
- Trabajadores comunitarios de salud
- Líderes juveniles

Participantes

- Padres
- Abuelos
- Líder tribal
- Trabajadores de guardería
- Proveedores de atención médica
- Jóvenes (a partir de 12 años)
- Cualquier persona interesada en obtener más información sobre el plomo y cómo proteger a los niños

Colaboración entre:

- National Tribal Toxics Council;
- National-EPA Tribal Science Council; y
- Agencia de Protección Ambiental de Estados Unidos

Socios

- Más de 200 representantes tribales contribuyeron al éxito de este plan de estudios, desarrollando contenido, revisando información, evaluando el mensaje y el uso.

Material del Plan de estudios

Descripción general del material

- Prefacio
- Introducción
- Uso del plan de estudios
- 4 Módulos que incluyen
  - Plan de clase
  - Presentación
  - Hoja de trabajo
  - Mensajes clave
  - Hojas de ejercicios para niños
- 4 Apéndices

Módulo 1: Información sobre el plomo

- Enseña a los participantes las posibles fuentes de exposición al plomo, los impactos del plomo y los efectos en la salud de los seres humanos, la fauna y flora silvestres, el medioambiente y las prácticas culturales

Foto proporcionada por Zender Environmental and Health Group

Módulo 1: Información sobre el plomo

1. Introducción
2. Posibles fuentes de exposición al plomo
3. Poblaciones vulnerables
4. Impactos y efectos de la exposición al plomo
5. Tomar acción

Photo by Jelleke Vanooteghem on Unsplash

Módulo 2: Técnicas de limpieza eficaces

- Explica y demuestra las técnicas de limpieza recomendadas para reducir el polvo de plomo y la posible exposición al plomo en el hogar

Módulo 2: Técnicas de limpieza eficaces

1. Introducción
2. Colectores de polvo de plomo
3. Técnicas de limpieza recomendadas
4. Consejos útiles

Photo by CDC on Unsplash

Módulo 3: Higiene personal y nutrición

- Se centra en cómo los buenos hábitos de higiene personal y las prácticas nutricionales saludables pueden ayudar a reducir la absorción de plomo en el cuerpo de un niño

Módulo 3: Higiene personal y nutrición

1. Higiene personal
2. Nutrición

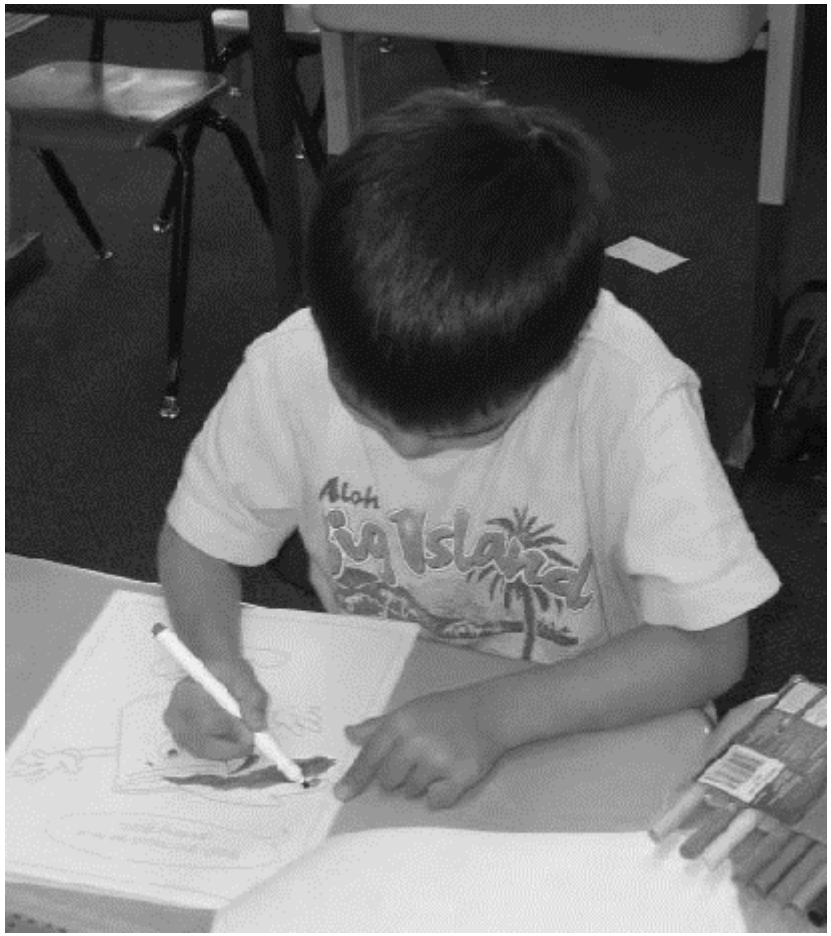


Photo provided by Zender Environmental and Health Group

Módulo 4: Contratación de profesionales certificados en plomo

- Instruye a los participantes sobre qué hacer si un hogar, un centro de cuidado infantil o un preescolar construido antes de 1978 contiene pintura a base de plomo

Foto proporcionada por Shaun West, Gerente de Programas Ambientales, Nación Cherokee

Módulo 4: Contratación de profesionales certificados en plomo

1. Los peligros de la pintura a base de plomo en deterioro
2. Pruebas para detección de plomo en el hogar
3. Eliminación del plomo
   - Norma de renovación, reparación y pintura (RRP)
4. Proyectos de eliminación versus RRP

Plan de clase

Module 1: Understanding Lead provides an overview of lead, its impacts and actions that can be taken to reduce potential lead exposure and lead poisoning. This module is developed to ensure that attendees understand the seriousness of lead exposure and steps to prevent lead poisoning. By the end of Module 1, participants will:

- Recognize potential sources of lead exposure;
- Understand impacts and effects of lead exposure;
- Learn simple actions to reduce lead exposure; and
- Know the importance of testing children for elevated blood lead levels.

Instructor Preparation

*To fully prepare for **Module 1: Understanding Lead**, the instructor should take the following steps:*

- *Preview the Lesson Plan to identify sections where examples, stories and local information may be inserted.*
- *Reach out to tribal personnel and seek other resources to find local information and partners, if possible.*
- *Invite a local healthcare provider or environmental health professional to participate in the session and be available to answer attendees' questions about childhood blood lead levels and testing. Review the Center for Disease Control and Prevention's (CDC) website for information on their recommendations on children's blood lead levels: www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm.*
- *Research and identify sources of lead exposure(s) in your community.*
- *Discuss with tribal leaders, elders and staff your intentions to conduct the training and whether they have any stories related to lead and lead exposures they would like shared during this session.*
- *Make copies of the Module 1 Worksheet, Key Messages and Kid's Activity Sheet (1 copy per participant).*
- *Edit the Module 1 Presentation Slides to incorporate relevant stories, images and videos. Remove Presentation Slides you do not plan to use during the session.*

Instructor Notes *written in italics can be found throughout the Lesson Plan. These notes are intended to guide the instructor through the discussion and presentation and are not meant to be read out loud during the session.*

Notes:

Suggested Materials

- Laptop and projector to display Presentation Slides
- Flip chart
- Markers
- Module 1 Worksheet
- Module 1 Key Messages
- Module 1 Kid's Activity Sheet
- Pens or pencils
- Hard copies of presentation slides to hand out to participants (optional)

If access to technology is limited, you can use hardcopies of Presentation Slides.

Outcomes

Upon the completion of Module 1, participants will be able to:

- List three sources of lead exposure;
- List three health effects of lead exposure in children;
- Explain how lead impacts our cultural practices and wildlife; and
- List three actions that can minimize or eliminate potential exposure to lead.

Outline (75 minutes)

I. Introduction (10 minutes) 14
   a. Actions to Reduce Lead Exposure

II. Potential Sources of Lead Exposure (15 minutes) 16
   a. What is Lead?
   b. Where is Lead Found and How is it Used?
      i. Tar Creek Superfund Site
   c. Are There Other Sources of Lead in the Community?

III. Vulnerable Populations (5 minutes) 21
   a. Children
   b. Adults, Including Pregnant Women

IV. Impacts and Effects of Lead Exposure (15 minutes) 23
   a. Health Effects of Lead
   b. Health Effects of Lead on Wildlife
   c. Potential Impacts of Lead on Cultural Practices

Plan de clase

Notes:

Hiring a Certified Lead Professional
It is important to hire a lead professional who follows work practices to reduce exposure to lead when: a) abating a home, child care facility or preschool built before 1978 to address identified lead-based paint or lead-based hazards, and b) disturbing paint in a renovation, repair, or painting project in homes, child care facilities or preschools built before 1978.

When Can Lead Be Seen?
In the case of lead service lines for water, you can identify them easily (if they are accessible) by carefully scratching the pipe with a key. If the pipe is made of lead the area you scratched will turn a bright silver color (Ref. 2).

- Hire a certified lead professional when renovation, repair or painting will disturb painted surfaces in a home built before 1978. Keep family out of the work area.
- Change and wash clothes, remove shoes and shower to avoid tracking lead into the home from soil, work sites or hobbies.
- Wash daily any items your child uses regularly, such as pacifiers and toys, to minimize exposure to dust, which may contain lead.
- Flush your home's pipes by running your tap, taking a shower or doing a load of laundry or dishes before drinking or cooking.

These are a few of the actions we can take to reduce our potential exposure to lead. Later in this session, we will revisit these actions and learn more.

II. Potential Sources of Lead Exposure (15 minutes)

Instructor Note: *This section is meant to provide participants with a brief introduction. Various examples of exposure are provided, please keep in mind that actual exposure depends on a variety of situations, such as: source, location, manufacturing processes, age and condition of products. Throughout this section, place an emphasis that these are potential sources of lead exposure so as not to alarm participants. If needed, use information provided within the Taking Action section to assist with your discussion.*

a. What is Lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the Earth's crust. Lead is mined and then used in products to make them durable and last longer. Once lead is used in a product, it is nearly impossible to identify with the naked eye. Similar to other heavy metals, lead does not biodegrade or disappear from the environment over time.

b. Where is Lead Found and How is it Used?

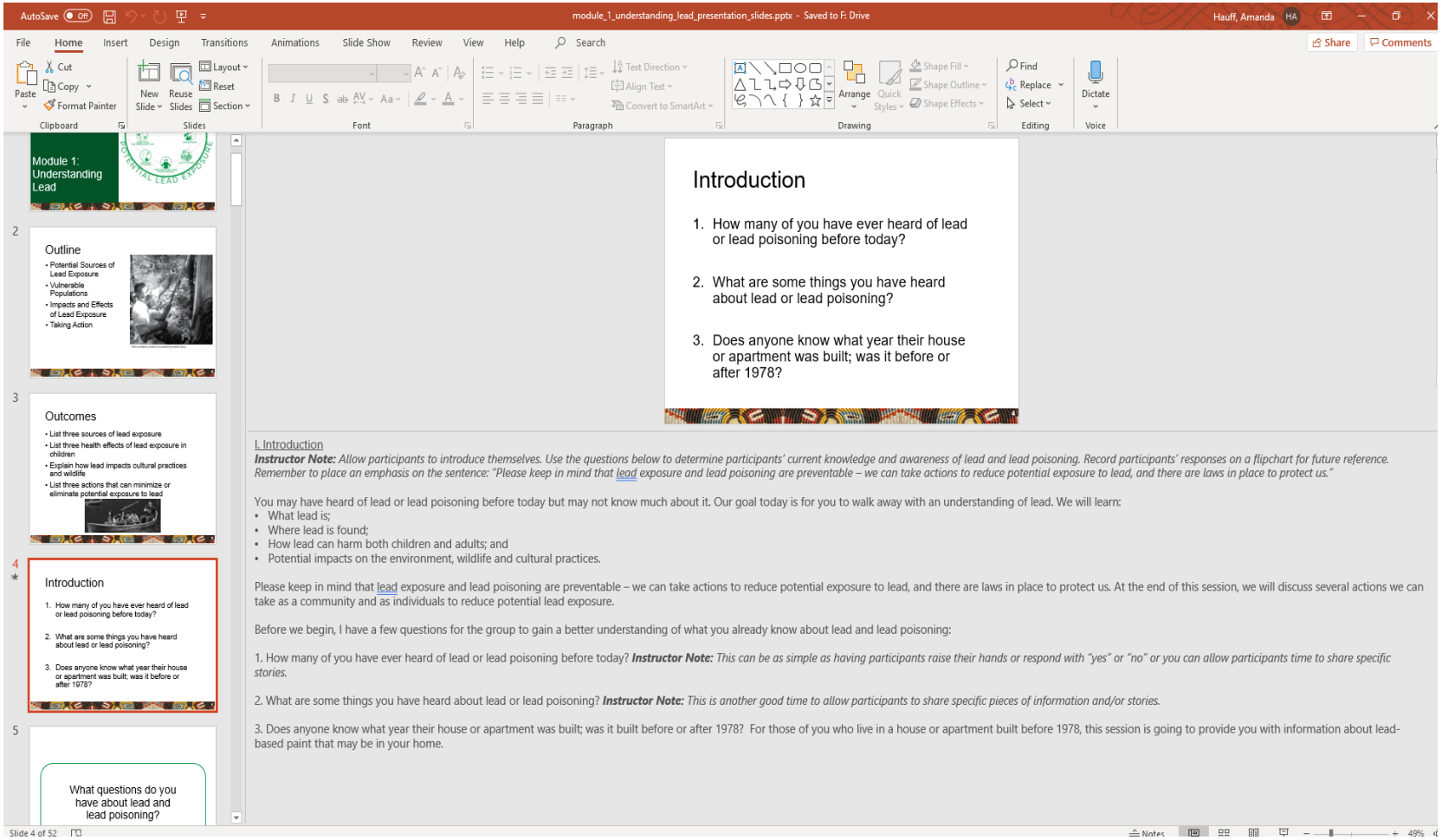
Lead has been mined and used for a long time and can be found in many different products and places. Where do you think lead can be found? Take a moment to glance around the space we are in and think about your everyday activities.

VII. References

The following is a list of the documents and websites that are specifically referenced in this Lesson Plan.

1. Centers for Disease Control and Prevention. Lead Poisoning: Words to Know from A to Z. Available at https://www.cdc.gov/nceh/lead/tools/LeadGlossary_508.pdf. [Accessed January 27, 2020].
2. US Environmental Protection Agency. Advice to Flint Residents. 2016. Available at https://www.epa.gov/flint/advice-flint-residents. [Accessed January 27, 2020].
3. Consumer Product Safety Commission. Part 1303—Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint. 2008. Available at https://www.gpo.gov/fdsys/pkg/CFR-2015-title16-vol2/pdf/CFR-2015-title16-vol2-part1303.pdf. [Accessed January 27, 2020].
4. US Environmental Protection Agency. Basic Information about Lead in Drinking Water. 2019. Available at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#skin. [Accessed January 27, 2020].
5. US Food and Drug Administration. Questions and Answers on Lead-Glazed Traditional Pottery. Available at https://www.fda.gov/food/metals/questions-and-answers-lead-glazed-traditional-pottery. [Accessed January 27, 2020].
6. US Environmental Protection Agency. Types of Contaminated Sites. 2017. Available at https://19january2017snapshot.epa.gov/enforcement/types-contaminated-sites_.html. [Accessed January 27, 2020].
7. US Food and Drug Administration. Lead in Food, Foodwares, and Dietary Supplements. 2018. Available at https://www.fda.gov/Food/FoodborneIllnessContaminants/Metals/ucm2006791.htm. [Accessed January 27, 2020].
8. Pourrut, B.; Shahid, M.; Dumat, C.; Winterton, P.; and Pinelli, E. Lead Uptake, Toxicity, and Detoxification in Plants. Reviews of Environmental Contamination and Toxicology. 2011. Vol. 213, pp. 113-136. Available at https://pdfs.semanticscholar.org/9be6/8222aa4e89eb91eae921f7_8517fe785477ce.pdf?_ga=2.57735337.2093406863.1532459162-1251993272.1532459162. [Accessed January 27, 2020].
9. Wierzbicka, M. and Antosiewicz, D. How lead can easily enter the food chain – a study of plant roots. The Science of the Total Environment. 1993. Supplement, pp. 423-429. Available at https://www.sciencedirect.com/science/article/pii/S0048969705800439. [Accessed March 4, 2020].
10. US Environmental Protection Agency. Soil, Yards and Playgrounds. 2017. Available at https://www.epa.gov/lead/protect-your-family-exposures-lead#soil. [Accessed January 27, 2020].
11. Centers for Disease Control and Prevention. Lead in Drinking Water. 2019. Available at https://www.cdc.gov/nceh/lead/prevention/sources/water.htm. [Accessed January 27, 2020].
12. National Institute for Occupation Safety and Health. Lead: Information for Workers: Jobs That May Have Lead Exposure. 2017. Available at https://www.cdc.gov/niosh/topics/lead/jobs.html. [Accessed January 27, 2020].
13. Centers for Disease Control and Prevention. NCEH/ASTDR Clear Writing Hub: Environmental Health Thesaurus: Pica. 2019. Available at https://www.cdc.gov/nceh/clearwriting/thesaurus/. [Accessed January 27, 2020].
14. National Eating Disorders Association. Pica. 2018. Available at https://www.nationaleatingdisorders.org/learn/by-eating-disorder/other/pica. [Accessed January 27, 2020].

Presentación



Hoja de trabajo

Worksheet | Module 2

Lead Awareness in Indian Country: Keeping Our Children Healthy!

EFFECTIVE CLEANING TECHNIQUES

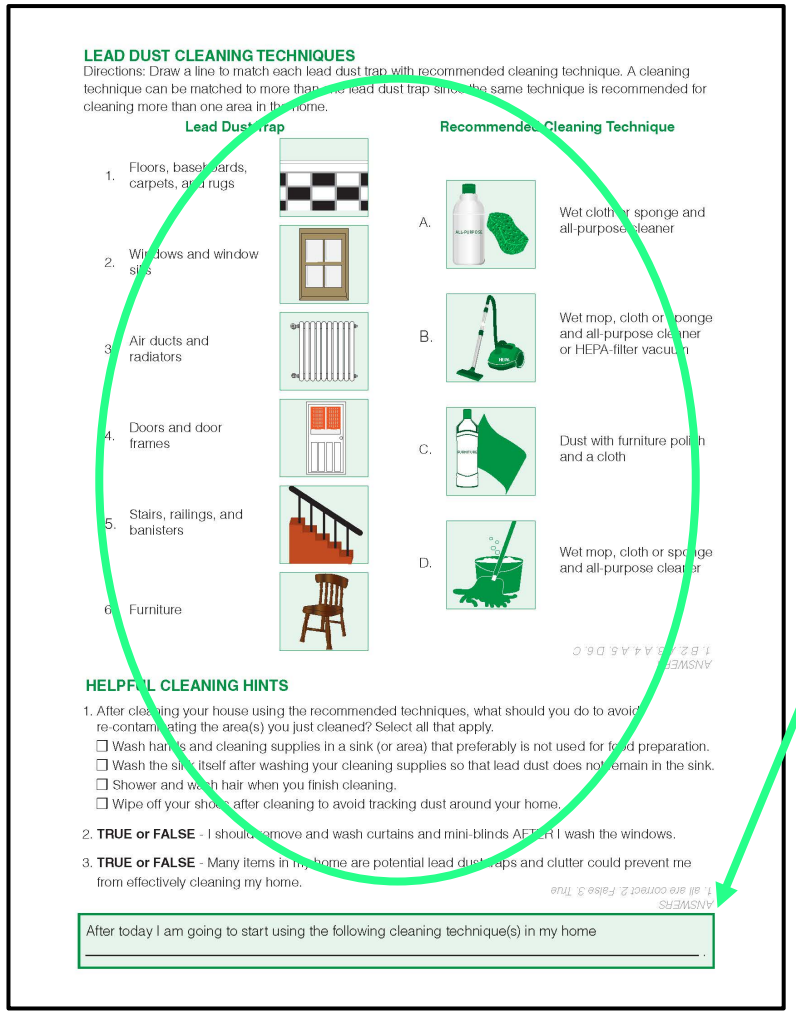
LEAD DUST TRAPS

Lead in household dust (lead dust) can form when lead-based paint is scraped, sanded or heated. It also forms when painted surfaces containing lead bump or rub together. A lead dust trap is a space or object where lead dust can easily gather on ir or under.

Directions: This home has at least 6 lead dust traps, find and circle them all.

ANSWERS

1. floors, carpets, rugs, and baseboards 2. windows and window sills 3. air ducts and radiators 4. doors and door frames 5. stairs, railing, and banisters 6. furniture



LEAD DUST CLEANING TECHNIQUES

Directions: Draw a line to match each lead dust trap with recommended cleaning technique. A cleaning technique can be matched to more than one lead dust trap since the same technique is recommended for cleaning more than one area in the home.

Lead Dust Trap	Recommended Cleaning Technique
1. Floors, baseboards, carpets, and rugs	A. Wet cloth or sponge and all-purpose cleaner
2. Windows and window sills	B. Wet mop, cloth or sponge and all-purpose cleaner or HEPA-filter vacuum
3. Air ducts and radiators	C. Dust with furniture polish and a cloth
4. Doors and door frames	D. Wet mop, cloth or sponge and all-purpose cleaner
5. Stairs, railings, and banisters	
6. Furniture	

ANSWERS 1. B 2. D 3. A 4. A 5. D 6. C

HELPFUL CLEANING HINTS

1. After cleaning your house using the recommended techniques, what should you do to avoid re-contaminating the area(s) you just cleaned? Select all that apply.
   - ☐ Wash hands and cleaning supplies in a sink (or area) that preferably is not used for food preparation.
   - ☐ Wash the sink itself after washing your cleaning supplies so that lead dust does not remain in the sink.
   - ☐ Shower and wash hair when you finish cleaning.
   - ☐ Wipe off your shoes after cleaning to avoid tracking dust around your home.
2. **TRUE or FALSE** - I should remove and wash curtains and mini-blinds AFTER I wash the windows.
3. **TRUE or FALSE** - Many items in my home are potential lead dust traps and clutter could prevent me from effectively cleaning my home.

ANSWERS 1. all are correct 2. False 3. True

After today I am going to start using the following cleaning technique(s) in my home _____.

Mensajes clave

PERSONAL HYGIENE AND NUTRITION

Good personal hygiene habits and healthy nutritional practices can limit absorption of and reduce exposure to lead.

WHAT ARE PERSONAL HYGIENE HABITS THAT CAN REDUCE POTENTIAL LEAD EXPOSURE?

One way young children ingest lead is through dust or soil that settles on their hands as they play. When children put their hands in their mouths, they may swallow lead-contaminated dust or soil, which can then get into their bloodstream. Good personal hygiene habits, such as consistent handwashing, reduces the likelihood of this happening and is the best way to reduce the number of germs on children's hands in most situations. Children should wash their hands with soap several times a day using the Six Steps of Handwashing.

Step 1: Wet hands with clean, running water.

Step 2: Add soap, then rub hands together making a soapy lather. Do this away from the running water; be careful not to wash the lather away.

Step 3: Scrub the front and back of hands, between fingers and under nails. Wash for at least 20 seconds, the amount of time it takes to sing the ABCs once or the Happy Birthday song twice.

Step 4: Rinse hands from wrists to fingertips under clean, running water. Let the water run back into the sink, not down to your elbows.

Step 5: Dry hands thoroughly with a clean towel or paper towel.

Step 6: Turn off the faucet with the used towel. Remember, dirty hands turned on the faucet.

HOW CAN WE REDUCE POTENTIAL EXPOSURE TO LEAD WHILE OUTDOORS?

Children may be exposed to lead in outdoor environments through contaminated soil or breathing in dust containing lead. To reduce potential exposure to lead while outdoors we can:

- Check the exterior of your home, including porches and fences, for deteriorating paint.
- Wash outdoor toys and playground equipment regularly.
- Use designated picnic, camping, biking and hiking areas.
- Use water from clean sources for drinking, cooking or washing.

To avoid tracking soil into your home:

- Put doormats outside and inside all entryways.
- Remove shoes before coming inside.
- Wipe pets' paws prior to bringing them indoors.

HOW MAY NUTRITION ASSIST IN REDUCING THE ABSORPTION OF LEAD?

Eating a variety of foods givesfi children the vitamins and minerals they need to grow up healthy. When children do not have enough calcium or iron in their bodies, their bodies may absorb lead instead of these nutrients. A diet that includes foods rich in calcium, iron and vitamin C may assist in reducing the absorption of lead.

Important facts to understand are:

- An overall unhealthy diet high in fat and oil may increase the rate of lead absorption; and
- A child with an empty stomach will absorb more lead.

Review the Module 3 Worksheet for information on specific foods that contain calcium, iron and vitamin C.

WHAT ARE SOME MEALS THAT CONTAIN CALCIUM, IRON AND/OR VITAMIN C?

BREAKFAST:

- Oatmeal, sliced banana and 100% orange juice
- Vegetable omelet, apple sauce and low-fat milk
- French toast, orange slices, yogurt and 100% fruit juice
- Iron-fortified cereal with low-fat milk, topped with raisins
- Wild rice porridge with berries

LUNCH:

- Turkey & tomato sandwich, coleslaw and low-fat milk
- Tuna salad sandwich on whole-grain bread and pear slices
- Lean cheeseburger on a whole-grain bun and 100% cranberry juice
- Shrimp, squash and brussels sprouts

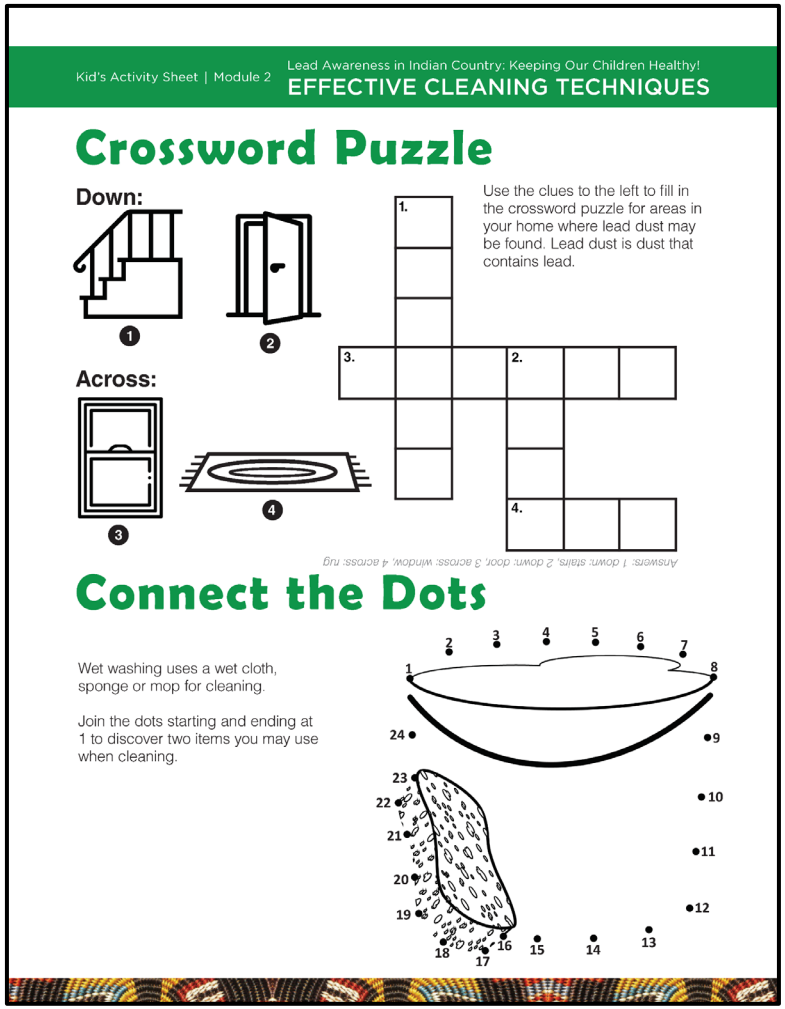
DINNER:

- Sloppy joe, watermelon and low-fat milk
- Macaroni and cheese, stewed tomatoes and melon slices
- Chicken, rice, green beans and berries
- Salmon, rice and bell peppers

WHERE CAN I LEARN MORE?

For more information, contact the National Lead Information Center (NLIC) at 1-800-424-LEAD (5323) or visit www.epa.gov/lead.

Hojas de ejercicios para niños



Kid's Activity Sheet | Module 2

Lead Awareness in Indian Country: Keeping Our Children Healthy!

EFFECTIVE CLEANING TECHNIQUES

Crossword Puzzle

Use the clues to the left to fill in the crossword puzzle for areas in your home where lead dust may be found. Lead dust is dust that contains lead.

Down:

1. 2.

Across:

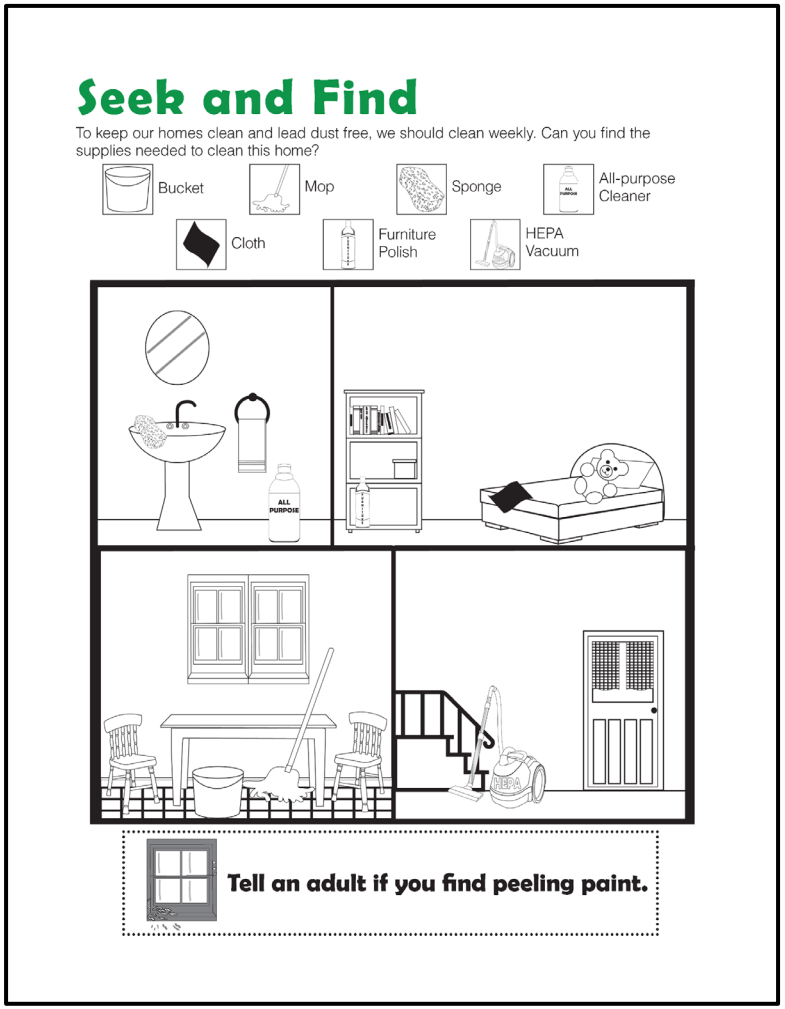
3. 4.

Answers: 1 down: stairs, 2 down: door, 3 across: window, 4 across: rug

Connect the Dots

Wet washing uses a wet cloth, sponge or mop for cleaning.

Join the dots starting and ending at 1 to discover two items you may use when cleaning.



Seek and Find

To keep our homes clean and lead dust free, we should clean weekly. Can you find the supplies needed to clean this home?

Bucket, Mop, Sponge, All-purpose Cleaner, Cloth, Furniture Polish, HEPA Vacuum

Tell an adult if you find peeling paint.

Apéndices

APPENDIX A: FOODS THAT CONTAIN CALCIUM, IRON & VITAMIN C

Over 150 foods that contain varying amounts of calcium, iron and/or vitamin C are listed below. This table is an unofficial source (provided by tribal representatives) that provides examples of local/traditional foods and items found in a grocery store that can be part of an overall healthy diet. For more detailed information about nutrient content in the foods below, please visit the U.S. Department of Agriculture's FoodData Central at https://fdc.nal.usda.gov/.
Instructor Note: *Use this table to identify foods during Module 3.*

Food	Calcium	Iron	Vitamin C
Acorns	x	x	
Almonds	x	x	
Amaranth	x	x	x
Antelope		x	
Asparagus			x
Avocado	x	x	x
Bananas	x	x	x
Barnacles	x	x	
Beach asparagus	x	x	x
Beans	x	x	
Bear		x	
Beech nuts	x	x	x
Bell peppers	x	x	x
Beluga whale	x	x	
Biscuit root/Coush		x	x
Bison		x	
Bitter root			x
Black walnuts	x	x	
Blackberries	x	x	x
Blue camas bulb	x	x	x
Blueberries	x	x	x
Bone broth	x	x	
Breadfruit	x	x	x
Broadleaf arrowhead/Water potato/Wapato leaf & root	x	x	x
Broccoli	x	x	x
Brussels sprouts	x	x	x
Butternuts	x	x	x
Cabbage	x	x	x
Cantaloupe	x	x	x
Caribou		x	
Carrots	x		x

APPENDIX B: RENOVATION, REPAIR AND PAINTING PROJECTS FOR DO-IT-YOURSELFERS

The Lead Renovation, Repair and Painting (RRP) Rule typically does not apply to homeowners renovating, repairing or painting their own homes, unless the home or a portion of the home is a rental or is used to provide child care services. Do-it-yourself projects can easily create dangerous lead dust. Protect your family and home – work safely, control the dust and clean up completely.

Follow these safeguards to prevent lead dust from spreading throughout your home and exposing your family to lead dust.

Work Safely

- Remove all furniture, area rugs, curtains, food, clothing and other household items until cleanup is complete.
- Items that cannot be removed from the work area should be tightly wrapped with plastic sheeting and sealed with tape.
- Cover floors with plastic sheeting.
- If working on a larger job, construct an airlock at the entry to the work area.
    - The airlock consists of two sheets of thick plastic. One sheet is completely taped along all four edges.
    - The plastic sheet is then cut down the middle.
    - The second sheet is only taped along the top and acts as a flap covering the slit in the first sheet of plastic.
- Turn off forced-air heating and air conditioning systems. Cover vents with plastic sheeting and tape the sheeting in place.
- Close all windows in the work area.
- If disturbing paint, when using a hand tool, spray water on lead-painted surfaces to keep dust from spreading.

Get the Right Equipment

- It is important to get the right equipment to protect you and your family from lead exposure.
- NIOSH-certified disposable respirator with a HEPA (High-Efficiency Particulate Air) filter (N-100, R-100, or P-100).
- HEPA filter-equipped vacuum cleaner. Regular household vacuums may release harmful lead particles into the air.
- Wet-sanding equipment (e.g., spray mister), wet/dry abrasive paper, and wet sanding sponges for "wet methods."
- Two buckets and all-purpose cleaner. Use one bucket for the cleaning solution and the other bucket for rinsing. Change the rinse water frequently and replace rags, sponges and mops often.
- Heavy-duty plastic sheeting and heavy-duty plastic bags.
- Tape. Use tape to completely seal the plastic sheeting in place (e.g., covering furniture and air vents to construct an airlock).

Apéndices

APPENDIX C: GLOSSARY

Blood lead level – The amount of lead in blood, measured in micrograms per deciliter (µg/dl).

Blood lead test – Test that measures how much lead is in blood.

Elevated blood lead level – A single blood lead test at or above the U.S. Centers for Disease Control and Prevention (CDC) blood lead reference value. For more information on CDC's current blood lead reference value, visit: https://www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm.

EPA-administered – In the absence of an EPA-authorized program, EPA retains program implementation authority and directly implements programs under federal environmental statutes in Indian country. Currently, EPA directly implements the vast majority of programs under federal environmental statutes in Indian country.

EPA-authorized – Several federal environmental laws provide authority for EPA to authorize eligible Indian tribes to administer environmental programs established under those statutes in the same manner as states. For more information, visit: https://www.epa.gov/tribal/tribal-assumption-federal-laws-treatment-state-tas.

High Efficiency Particulate Air (HEPA) filter - A special filter which traps extremely small particles such as lead dust. For more information, visit: https://www.epa.gov/indoor-air-quality-iaq/what-hepa-filter-1.

Hygiene – Actions taken to keep our bodies clean, such as washing our hands or hair and taking a bath.

Lead – A naturally occurring element found in small amounts in the earth's crust.

Lead abatement – An activity designed to permanently eliminate lead-based paint hazards. There are four options: replacement, removal, enclosure and encapsulation. Replacement and removal activities completely remove lead-based paint. Enclosure and encapsulation methods are applied on top of lead-based paint in good condition without removing the lead-based paint.

Lead-based paint - Paint with lead levels greater than or equal to 1.0 milligram per square centimeter (mg/cm^2), or more than 0.5% by weight (as defined by the federal government).

Lead-based paint hazard – Any condition resulting from deteriorating (peeling, chipping, chalking or cracking) paint, which causes exposure to lead from paint, dust or soil.

Lead-based paint inspection – An activity conducted by a trained and certified lead-based paint inspector that tells you if your home has lead-based paint and where lead-based paint is located.

APPENDIX D: SUPPLEMENTAL RESOURCES

The following is a list of resources containing additional information on the topics covered in the Curriculum. Resources are categorized by topic.

Blood Lead Levels

1. Centers for Disease Control. Blood Lead Levels in Children. 2020. Available at https://www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm. [Accessed March 30, 2020].
2. Centers for Disease Control. Recommended Actions Based on Blood Lead Level. 2019. Available at https://www.cdc.gov/nceh/lead/docs/lead-levels-in-children-fact-sheet-508.pdf. [Accessed March 30, 2020].

Cleaning

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Infografía de acciones para reducir la posible exposición al plomo

ACCIONES PARA REDUCIR LA POSIBLE EXPOSICIÓN AL PLOMO

Limpie la casa una vez a la semana usando paños, esponjas o trapeador limpios, mojados o húmedos para minimizar el polvo, que puede contener plomo.

Enjuague las tuberías de su hogar abriendo la llave, tomando una ducha o lavando una carga de ropa o los platos antes de beber o cocinar.

Siga una dieta balanceada con alimentos ricos en calcio, hierro y vitamina C para ayudar a reducir la absorción del plomo.

Lave cualquier artículo que su hijo utilice regularmente todos los días, como bobos y juguetes, para minimizar la exposición al polvo, que puede contener plomo.

Utilice jabón y agua (tibia o fría) para lavar las manos de los niños varias veces al día, especialmente después de jugar afuera o con animales.

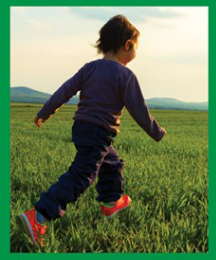
Cambie y lave las ropas, quítese los zapatos y tome un baño para evitar la entrada del plomo en la casa desde el suelo, lugares de trabajo o actividades de recreación.

Juegue en la grama y la tierra no contaminadas con plomo, y use áreas designadas para pícnic, camping y caminatas.

Contrate a un profesional certificado en prácticas seguras con el plomo cuando la renovación, reparación o pintura altera las superficies pintadas en una casa construida antes de 1978. Mantenga a la familia fuera del área de trabajo.

Materiales de alcance público

Aprendá más sobre el plomo y cómo proteger a los niños



Concientización sobre el plomo en los terrenos indígenas: ¡Mantener a nuestros niños sanos!

ANFITRIÓN: [Introduzca el nombre de la organización]

ASISTENTES: Cualquier persona interesada en obtener más información sobre el plomo [o introduzca una audiencia específica aquí]

FECHA(S): [Introduzca la fecha de la sesión (o las fechas)]

HORARIO(S): [Introduzca el horario de la sesión (o los horarios)]

DÓNDE: [Introduzca la ubicación]

[Introduzca su logotipo aquí]

Para obtener más información, póngase en contacto con:

Introduzca el nombre

Introduzca el número de teléfono

Introduzca el correo electrónico

Materiales de alcance público

Navegar

www.epa.gov/lead/tribal-lead-curriculum

Preparativos: Demostración con el módulo 3

Pasos para todos los módulos

- Revisar el plan de clase, la presentación, la hoja de trabajo, los mensajes clave, la hoja de ejercicios para niños, los apéndices
- Revisar la sección “Preparación del instructor”
- Identificar socios
- Recopilar información local
- Modificar el plan de estudios
- Reunir materiales para demostraciones y actividades opcionales

Instructor Preparation

*To fully prepare for **Module 1: Understanding Lead**, the instructor should take the following steps:*

- *Preview the Lesson Plan to identify sections where examples, stories and local information may be inserted.*
- *Reach out to tribal personnel and seek other resources to find local information and partners, if possible.*
- *Invite a local healthcare provider or environmental health professional to participate in the session and be available to answer attendees' questions about childhood blood lead levels and testing. Review the Center for Disease Control and Prevention's (CDC) website for information on their recommendations on children's blood lead levels: www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm.*
- *Research and identify sources of lead exposure(s) in your community.*
- *Discuss with tribal leaders, elders and staff your intentions to conduct the training and whether they have any stories related to lead and lead exposures they would like shared during this session.*
- *Make copies of the Module 1 Worksheet, Key Messages and Kid's Activity Sheet (1 copy per participant).*
- *Edit the Module 1 Presentation Slides to incorporate relevant stories, images and videos. Remove Presentation Slides you do not plan to use during the session.*

***Instructor Notes** written in italics can be found throughout the Lesson Plan. These notes are intended to guide the instructor through the discussion and presentation and are not meant to be read out loud during the session.*

Módulo 3: Preparación del instructor

- Revise previamente el plan de lecciones
  - ¿Dónde puede introducir sus propios ejemplos e historias?
  - ¿Qué modificaría?
- Prácticas al aire libre
  - Jugar en la hierba; jugar en áreas no contaminadas
- Lista de hábitos de higiene personal
  - Lavarse las manos, lavar los juguetes
  - Insertar prácticas relevantes locales/culturales

Foto proporcionada por Zender Environmental and Health Group

Módulo 3: Preparación del instructor

- Comuníquese con los socios y encuentre recursos adicionales
  - Servicios comunitarios de salud
  - Departamentos de Vida Silvestre, Pesca, Recursos Naturales
  - Programas de recursos culturales
- Recopile una lista de los alimentos y meriendas locales/tradicionales de su comunidad
  - Nueces, pescado y frutas específicas

Foto proporcionada por Zender Environmental and Health Group

Alimentos que pueden ayudar a reducir la absorción del plomo

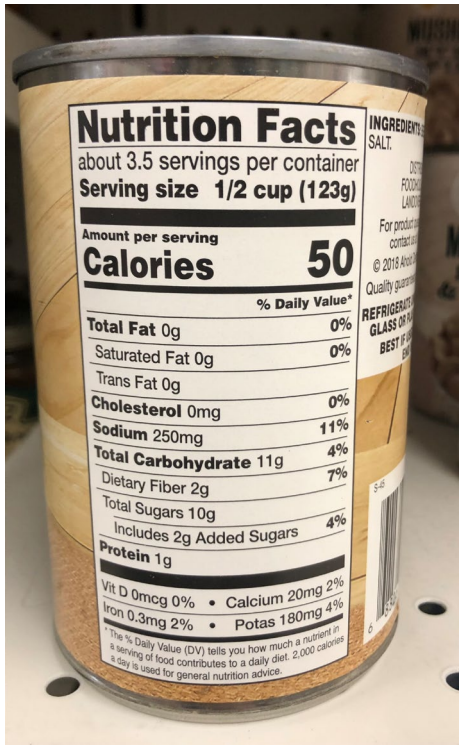
Nutrientes	Alimentos locales/tradicionales
Calcio **(mineral, necesario para desarrollar y mantener los huesos fuertes)**	
Hierro **(mineral fundamental para la función sanguínea)**	
Vitamina C **(vitamina que protege al cuerpo de enfermedades y promueve la absorción del hierro)**	

Alimentos que pueden ayudar a reducir la absorción del plomo

Nutrientes	Alimentos locales/tradicionales
Calcio **(mineral, necesario para desarrollar y mantener los huesos fuertes)**	bellotas, percebes, bulbo de camas azules, eneas, choya, pastinaca de vaca, hojas de epilobio, harina de mezquite, ortigas, nabo de la pradera, pepino de mar, capelán, dedal, té de punta de abeto
Hierro **(mineral fundamental para la función sanguínea)**	antílope, amaranto (granos y hojas), percebes, espárragos de playa, oso, beluga, caldo de hueso, punta de flecha de hoja ancha, frutos secos, caribúes, cangrejo, pato, alce, hígado de pescado, nueces de nogal americano, lamprea, alce, habichuela, piñones, codorniz, quinua, conejo, león marino, erizo marino, algas marinas, focas, caracol, calamar, ardilla, frijol tépari, morsa, hojas de sauce, wocas
Vitamina C **(vitamina que protege al cuerpo de enfermedades y promueve la absorción del hierro)**	aguacate, nueces de haya, raíz biscuit/cous, raíz amarga, pan de fruta, capulín, mora de los pantanos, verdes de diente de león, cabezas de fideo, chile verde de Nuevo México, cebolla, agujas de pino, verdolaga, rampas, rosa mosqueta, zarza naranja, taro, té de Labrador, ñame

Módulo 3: Preparación del instructor

- Haga copias
  - 1 copia de cada material por persona
- Reúna los materiales
  - Demostración del lavado de manos
  - Actividad de meriendas saludables
  - *Actividad con luz negra: Opcional*
  - *Actividad de lectura de las etiquetas de información nutricional - opcional*
- Editar y modificar el plan de estudios/diapositivas



¡Está listo!

Módulo 3: Higiene personal y nutrición

- Esquema
  - Higiene personal
  - Nutrición

Nutrición

- La nutrición es importante para el crecimiento, el desarrollo y el aprendizaje general de los niños
- Cuando los niños no tienen suficiente calcio o hierro, sus cuerpos pueden absorber plomo en lugar de estos nutrientes.

Nutrientes clave

Calcio	Hierro	Vitamina C
Foto de Annie Spratt en Unsplash	Foto de Mel Elías en Unsplash	

Datos importantes a considerar

- Los alimentos ricos en grasa y aceite pueden aumentar la tasa de absorción de plomo
- Un niño con el estómago vacío absorberá más plomo

Papas fritas

Helado

¿Qué otros alimentos le parece que podemos proporcionar para que los niños obtengan calcio, hierro y vitamina C en sus dietas?

Alimentos que pueden ayudar a reducir la absorción del plomo	
Nutrientes	**Alimentos generales**
Calcio (mineral, necesario para desarrollar y mantener los huesos fuertes)	almendras, caldo de hueso, brócoli, salmón enlatado, queso, semillas de chía, verduras de collar, queso de campo, cangrejo, edamame, higos, okra, leche, leche no láctea, nopal, pera espinosa (tuna), sardinas, algas, camote/batatas, tofu, frijoles blancos, pan de trigo integral, yogur
Hierro (mineral fundamental para la función sanguínea)	albaricoques, espárragos, frijoles, ternera, bisonte, nueces negras, pollo, almejas, huevos, pescado, huevos de pescado, avellanas, lentejas, hígado, champiñones, mejillones, verduras de mostaza, avena, ostras, crema de cacahuate (mantequilla de maní), chicharos (guisantes), piñones, semillas de calabaza, ciruelas pasas, pasas, salmón, vieiras, camarones, espinacas, venado, papa (bata) de agua, arroz salvaje
Vitamina C (vitamina que protege al cuerpo de enfermedades y promueve la absorción del hierro)	manzanas, plátanos, pimientos, moras, arándanos, coles de Bruselas, col, melón, coliflor, castañas, cítricos, maíz, judías verdes, melón dulce, arándanos, , kiwi, puerros, pastinaca (chirivía), peras, ciruelas, patatas, frambuesas, ruibarbo, calabaza, calamares, fresas, tomates, nabos, berros

¿Falta en la tabla algún alimento, específicamente cualquier alimento local/tradicional que se consuma en su comunidad?

Alimentos que pueden ayudar a reducir la absorción del plomo

Nutrientes	Alimentos locales/tradicionales
Calcio **(mineral, necesario para desarrollar y mantener los huesos fuertes)**	bellotas, percebes, bulbo de camas azules, eneas, choya, pastinaca de vaca, hojas de epilobio, harina de mezquite, ortigas, nabo de la pradera, pepino de mar, capelán, dedal, té de punta de abeto
Hierro **(mineral fundamental para la función sanguínea)**	antílope, amaranto (granos y hojas), percebes, espárragos de playa, oso, beluga, caldo de hueso, punta de flecha de hoja ancha, frutos secos, caribúes, cangrejo, pato, alce, hígado de pescado, nueces de nogal americano, lamprea, alce, habichuela, piñones, codorniz, quinua, conejo, león marino, erizo marino, algas marinas, focas, caracol, calamar, ardilla, frijol tépari, morsa, hojas de sauce, wocas
Vitamina C **(vitamina que protege al cuerpo de enfermedades y promueve la absorción del hierro)**	aguacate, nueces de haya, raíz biscuit/cous, raíz amarga, pan de fruta, capulín, mora de los pantanos, verdes de diente de león, cabezas de fideo, chile verde de Nuevo México, cebolla, agujas de pino, verdolaga, rampas, rosa mosqueta, zarza naranja, taro, té de Labrador, ñame

Ideas para comidas – Desayuno

- Avena, guineo en rodajas y jugo de naranja al 100 %
- Tortilla vegetal, salsa de manzana y leche desnatada
- Papilla de arroz silvestre con bayas

Papilla de arroz silvestre con frambuesas y jarabe de maple

Ideas para comidas - Almuerzo

- Sándwich de ensalada de atún en pan integral y rodajas de pera
- Camarones, calabaza y coles de Bruselas

Sándwich a la parrilla

Ideas para comidas - Cena

- Macarrones y queso, tomates guisados y rodajas de melón
- Pollo, arroz, vainitas y bayas
- Salmón, arroz y pimientos

Pollo con arroz y brócoli

¿Tiene otras ideas de comidas que incluyan los tres nutrientes?

Meriendas saludables

- Palomitas de maíz de microondas
- Compota de manzana
- Frutas
- Mantequilla de maní con galletas integrales, manzanas o apio
- Carne seca
- Paletas 100 % de jugo de frutas
- Queso y galletas integrales
- Nueces, semillas de girasol y frutos secos

Paleta de frutas

Manzanas y mantequilla de maní

Almendras

¿Cuál de los alimentos, comidas o meriendas que cubrimos hoy va a agregar a la dieta de sus hijos esta semana?

Estrategias de enseñanza y discusión

Estrategias de enseñanza

- Ajuste cada sesión para capturar e incorporar observaciones personales/locales y escenarios de la vida real únicos para su comunidad
- Discuta temas de importancia para su comunidad y trabaje para identificar soluciones relevantes
- Haga que las sesiones sean interactivas
- Personalice la presentación
  - Agregue historias, imágenes, vídeos
  - Elimine diapositivas

Foto proporcionada por Zender Environmental and Health Group

Estrategias de enseñanza

- Identificar recursos adicionales que pueden ser importantes para los participantes, como folletos y números de teléfono
- Preste atención a la forma de hablar e interactuar con los participantes al discutir temas sensibles (por ejemplo, la higiene)

Modifique los materiales

1. ¿Cómo podría usar esto mi comunidad?
2. ¿Quién es mi público?
3. ¿Con quién debo asociarme y consultar?
4. ¿Qué módulos debo presentar?
5. ¿Cuándo debo facilitar las sesiones?

Foto proporcionada por Zender Environmental and Health Group

Modifique los materiales

6. ¿Qué factores deben tenerse en cuenta al modificar el plan de estudios?
7. ¿Qué modificaciones debo hacer?
8. ¿Qué recursos son necesarios?
9. ¿Cómo puedo facilitar las sesiones en línea?

Promueva la asistencia

- Mantenga las cosas simples
- Reúna un equipo
- Ubicación conveniente y atractiva
- Realice las sesiones en conjunto con otros eventos de la comunidad
- Anuncie utilizando medios innovadores
- Proporcione refrigerios, cuidado de niños gratis o premios para asistentes

¿Preguntas?

¡Gracias!

- *Comparta en las redes sociales usando:*
  - *#TribalLeadCurriculum*
  - *#NiñoseLibresdePlomo*

Para obtener más información, póngase en contacto con:

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