



Environmental Defenders Program
EnvironmentalDefendersLA.com

Environmental Lesson Plan



5E Learning Sequence: Grades K-2

*Developed by K-12 Science Education Specialists in L.A. County and Aligned With:
California Common Core Standards,
Next Generation Science Standards (NGSS), and
California Environmental Principles and Concepts (CA EP&C)*

Environmental Defenders 2024

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LESSON PLAN

Objective

At the end of this lesson/learning sequence, students are expected to understand many household products are hazardous or poisonous; identify common household hazardous substances; state the need to ask an adult before tasting, touching or smelling any product; and know that household hazardous products must be disposed of properly.

Standards

Next Generation Science Standards (NGSS)

- [K-ESS3-3](#) - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- [2-PS1-1](#) - Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- [K-2-ETS1-1](#) - Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

California Environmental Principles and Concepts

Principle II - People Influence Natural Systems

Concept A. Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.

Principle IV - There are no Permanent or Impermeable Boundaries that Prevent Matter from Flowing Between Systems

Concept B. The byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in their effect.

Common Core State Standards - Language Arts

Reading: Literature

- [CCSS.ELA-LITERACY.RL.K.1](#) - With prompting and support, ask and answer questions about key details in a text.
- [CCSS.ELA-LITERACY.RL.K.2](#) - With prompting and support, retell familiar stories, including key details.
- [CCSS.ELA-LITERACY.RL.K.3](#) - With prompting and support, identify characters, settings, and major events in a story.
- [CCSS.ELA-LITERACY.RL.1.1](#) - Ask and answer questions about key details in a text.

- [CCSS.ELA-LITERACY.RL.1.2](#) - Retell stories, including key details, and demonstrate understanding of their central message or lesson.
- [CCSS.ELA-LITERACY.RL.2.1](#) - Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.

Reading Informational Text

Key Ideas and Details:

- [CCSS.ELA-LITERACY.RI.K.1](#) With prompting and support, ask and answer questions about key details in a text.
- [CCSS.ELA-LITERACY.RI.K.2](#) With prompting and support, identify the main topic and retell key details of a text.
- [CCSS.ELA-LITERACY.RI.K.3](#) With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- [CCSS.ELA-LITERACY.RI.1.1](#) Ask and answer questions about key details in a text.
- [CCSS.ELA-LITERACY.RI.1.2](#) Identify the main topic and retell key details of a text.
- [CCSS.ELA-LITERACY.RI.1.3](#) Describe the connection between two individuals, events, ideas, or pieces of information in a text.
- [CCSS.ELA-LITERACY.RI.2.1](#) Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.
- [CCSS.ELA-LITERACY.RI.2.2](#) Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

Speaking and Listening

Comprehension and Collaboration:

- [CCSS.ELA-LITERACY.SL.K.1](#) Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- [CCSS.ELA-LITERACY.SL.K.1.A](#) Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
- [CCSS.ELA-LITERACY.SL.K.1.B](#) Continue a conversation through multiple exchanges.
- [CCSS.ELA-LITERACY.SL.1.1](#) Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.
- [CCSS.ELA-LITERACY.SL.2.1](#) Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.

Teacher Background

Identification - Household Hazardous Waste (HHW) is any product labeled toxic, poisonous, combustible, corrosive, irritant, or flammable. Some examples include antifreeze, batteries, cleaning supplies, unused non-controlled pharmaceuticals, fluorescent light bulbs, TVs, computers, and cell phones. By law, these products must be properly recycled or disposed of at a hazardous waste facility.

The term "E-Waste" is applied to consumer electronic equipment that is no longer wanted. E-Waste can include computers, printers, televisions, VCRs, cell phones, fax machines, stereos, and electronic games. Electronics may contain lead, copper, and other heavy metals or potentially toxic substances.

Proper Disposal - Items labeled as toxic, poisonous, combustible, corrosive, irritant, or flammable [cleaning products, vehicle liquids (oil, antifreeze, etc.), old paint, unused pharmaceuticals (Over the Counter medications, prescription medications, etc)] are hazardous and should immediately be moved to the Unsafe Column. E-Waste, items such as batteries and broken electronics, are not necessarily unsafe for them to handle but they must be disposed of properly when no longer in use. While flushing unused medications down the toilet or sink was once common practice, we now know that it is better for the environment to keep these substances out of the drain and out of the trash. Medications enter the sewer system and wind up at waste water treatment plants in two ways: (1) human excretion, and (2) disposal of medications down the drain. Wastewater treatment plants remove most pollutants; however, not all medications are entirely removed. The levels of medication are small enough that they do not normally pose a threat to public health and the environment. To keep our treated water safe, please dispose of unwanted medications at a [drug takeback location near you](#) and encourage others to do the same.

As educators, we can do our part by introducing our young students to Household Hazardous Waste and that waste from a single home may seem insignificant, but when millions of homes across Los Angeles County use similar products, the combined effect becomes a major problem. We can help them become aware of their household hazardous waste locations, and that safety should be a priority for them. We can also begin to turn this awareness into action in their homes. Small steps have a great impact.

Time Needed

3-4 hours collectively, as it can be broken down into three smaller sections or as needed:

1. Introduction: Engage, Explore,
2. Procedure: (Student) Explain, (Teacher) Explain,
3. Conclusion: Elaborate and Evaluate

Materials Needed

- Parent Letter (Appendix 1)
- Classification 1 and 2 handouts and Items cutouts (Appendix 2)

- Scissors
- Gluestick
- Writing Instruments
- Document Camera
- Projector or Interactive Board

Video Resources

[2020 National Poison Prevention Week Video Contest Grand Prize Winner, Ryan from Auburn, Washington](#)

[Time for Kids: Poison safety at home](#)

[Medication Safety for Kids](#)

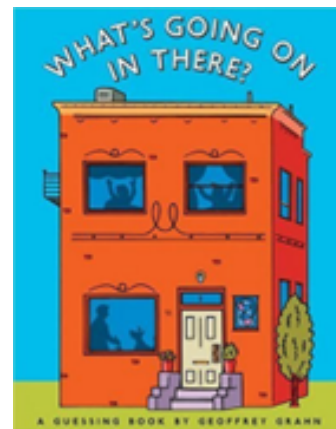
Literacy Books (Optional)

This book can be used to discuss with the students that sometimes things may not be what they appear. Just because something appears to be safe, it does not mean it is.

Kindergarten - 3: *What's Going on There?* A Guessing Book (Orchard Publishing) Hardcover by Geoffrey Grahn (Author and Illustrator)

Read Aloud YouTube video link [Virtual Summer Reading Program: What's Going on in There?](#)

[Dharma School Storytime: What's Going On In There?](#)



Vocabulary

(S13a) **Household** - those who dwell/live under the same roof and compose a family, a social unit composed of those living together in the same dwelling ([Merriam-Webster](#))

(S13b) **Hazard** - a source of danger

(S13c) **Waste** - an unwanted by-product of a manufacturing process, chemical laboratory, or nuclear reactor

(S13d) **Household Hazardous Waste** - a product usually found in places where people dwell labeled toxic, poisonous, combustible, corrosive, irritant, or flammable [Welcome to the Los Angeles County Household Hazardous Waste Collection Program](#)

(S13e) **Safety** - the state of being safe - free from risk of injury, danger, or loss. Avoiding or not causing injury, danger, or loss. (Definition modified from [Dictionary.com](#))

(S13f) **Disposal** - getting rid of or putting out of the way ([Merriam-Webster](#)).

Directions

This topic can be a little tricky to present, especially for the younger students, since you don't want to encourage them to look for these items but you also want to prepare them and teach them to stay away and tell an adult if they do come across them at home. Make sure this is emphasized throughout the learning sequence. As you prepare, it is important that parents be informed of the nature of the topic as some parents may not feel comfortable with it being brought up in school as it may pose a safety issue at home. Prior to starting, send home the Parent Letter (Appendix 1) to inform parents of the topic that will be discussed in class focusing on the identification of HHW, child safety around them, and their proper disposal.

Read the Teacher Background information and visit a few of the websites in the Resources section to familiarize yourself with Household Hazardous Waste and its appropriate disposal. For Kindergarten, pre-cut the Appendix 2 items so they are ready for Classification 1 and 2. For grades 1 and 2, have the students cut them either at the time of the learning sequence or before starting, so they are just ready to go.

The literacy book [What's Going on There? A Guessing Book](#) by Geoffrey Grahm is optional but can be used to discuss with the students that although things may seem a certain way, it may actually turn out to be something else. This can lead into the discussion that although some of these household hazardous items may seem like something they use or see everyday and seem to be safe, they are actually not. Preview the first [video read-aloud](#) and notice how the narrator does this when discussing these items. There are two versions of this read-aloud included, with the first one listed, having the discussion about HHW.

(S1) Lesson Title - Household Hazardous Waste

Introduction

(S2)(Engage) - Essential Questions: What is safety? What does it mean to be safe? What can we do to stay safe at home?

- 1) Lead students into a group discussion where they will share their ideas about safety and safety at home specifically.
- 2) (S3) Using Bubble Map 1, ask:
 - a) What is safety?
 - b) What does it mean to be safe?
 - i) Possible answers:
 - (1) It means we don't get hurt. We are not in danger.
- 3) (S4) Lead students into a group discussion where they will share their ideas about safety at home.
- 4) S5) Using Bubble Map 2, then ask:
 - a) What can we do to be safe at home?
 - i) Possible answers:
 - (1) Listen to your parents, follow directions.
 - 5) (S6) Explain to students that there are some items at home that are safe for them to handle or touch but others that are not safe. Items that are unsafe are known as hazardous. NOTE: For grade 2 students, use the official name of the items Household Hazardous Waste.

Emphasize that before handling any of these or any unknown items anywhere, they should always tell or ask a trusted adult for help.

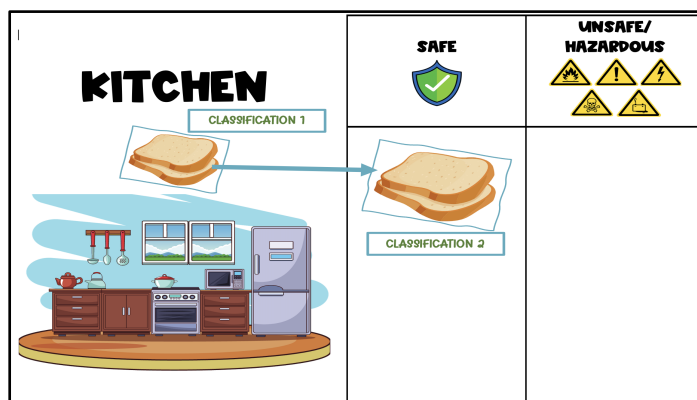
(Explore) - Essential Questions: Where do we find unsafe/hazardous items at home? How do we keep safe around unsafe/hazardous items?

Safe and Unsafe/Hazardous Items - Whole Group Classification Activity

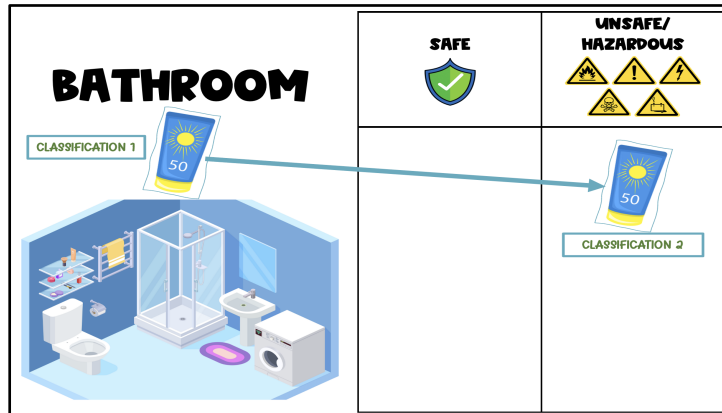
- 1) Show the students the following scenarios and as a class, do the following:
 - a) Ask,
 - i) (S7-S10) What is this item? Where in your house can we find this item? Is this item safe? What should we do with this item? Should we be handling this item?

Example:

- This is bread. I eat it when I have my sandwich. It's in the kitchen. It is safe for me to use because it's food!



- This is sunscreen. I use it everyday when I go outside. It's in the bathroom cabinet. It's safe to use but I cannot swallow it.



- 2) Make sure students understand where these items may be found in their homes, which items are safe for them to handle, and which items are unsafe or hazardous and that they should ask an adult to handle it or they should leave it alone.

(S11a-S11g) Safe and Unsafe/Hazardous Items - Individual/Small Group Classification Activity

This activity can be done individually if time permits, or as a small group using the different rooms to organize the groups.

- 1) Hand each student/group a copy of the Safe and Unsafe/Hazardous Items Handouts (Appendix 2) , the Home Safety Classification Tables (Appendix 2), scissors and glue.
- 2) Tell the students that they must cut out and sort the items using Classification 1 and then Classification 2. Note: Kindergarten students may need to have the pictures already cut out for them to save time.

Classification 1 - Item Location at Home - For this section, students can be given the choice of classifying all the items first using the Home Location, then focus on one location at a time, classifying them on whether they are Safe or Unsafe/Hazardous OR items can be classified by location and then whether they are Safe or Unsafe/Hazardous.

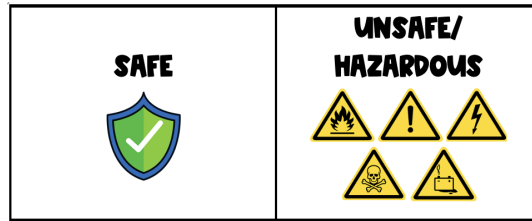
a) Ask:

- i) Where would you find this item at home?

(1) Possible answers may vary based on where individual families keep the items .

Classification 2 - Safe or Unsafe/Hazardous Item - Guide students to determine whether an item is Safe or Unsafe/Hazardous for them to use or handle and then to place them under the proper column .

The Safe Items column and The Unsafe/Hazardous Column will be recognized with these symbols:



Clarify that some items such as E-Waste may not necessarily be hazardous to handle but they must be disposed of properly (this will be discussed in the next section).

(Student Explain) - Essential Questions: What items at home are safe and unsafe?

Group Share Out

- 1) (S12) When students are finished with the sorting activity, go around the class calling individual students so all rooms at home share OR have each group share making sure they include:
 - What item is being shared?
 - Where can this item be located at home?
 - Is the Item safe or unsafe?

Procedure (Teacher Explain)

- 1) (S13, S14) Lead a discussion with your students about where different household hazardous items are found. Usually the kitchen, the garage, and the laundry room are places where most of the cleaning and washing products are found. Kitchen, restrooms, and possibly bedrooms are where pharmaceuticals may be found.
- 2) (S15) Once hazardous items are identified and located at home, the next step is for students to learn how we dispose of the items properly.
- 3) (S16-S18) The following videos and resources discuss how we can keep safe at home and what to do with the items.
 - a) [2020 National Poison Prevention Week Video Contest Grand Prize Winner, Ryan from Auburn, Washington](#)
 - b) [Time for Kids: Poison safety at home](#)
 - c) [Medication Safety for Kids](#)
- 4) Review together the answers for Classification 2. Use the document camera or the slide deck to decide which items are safe or unsafe. Let them guide the discussion with you facilitating if there are any disagreements. Remember to read the information about E-Waste so you can explain to students that although items like old or broken tablets or cell phones may be safe for them to handle, they need to be disposed of properly and that is why they are classified as unsafe or hazardous.
- 5) (S19-S21) The discussion now will focus on how we can dispose of these items properly and responsibly. Explain to the students that because these items are unsafe, when we need to dispose of them, they cannot just be thrown away with

everyday trash. Different cities and counties have assigned locations where people can take their HHW.

- 6) (S22) Show students pictures of the different facilities and what kind of items each one accepts.
- 7) (S23-S24) For Kindergarten students, emphasize the Permanent Centers as the one-place-collect-all option. For grades 1 and 2, share the item-specific locations and the Temporary Events. (See Appendix for additional information)
- 8) (S25a-S25f) Introduce or Review academic/scientific vocabulary using these slides.

Conclusion

(Elaborate and Evaluate) - Essential Question: Can I identify if items are safe or unsafe, where I can find them in a home and how should I dispose of them properly?

- 1) (S26-S27) Hand each student the Making your New Home Safe handout and read the Scenario together:

Scenario: You are playing in the backyard of your new home. You come across a box that is filled with a lot of items that need to be placed in their appropriate location in your house. An adult in your house needs your help sorting these items as Safe or Unsafe, like you did in today's activity at school. Make sure you are able to explain why the items are safe or unsafe.

Students will follow the same steps as they did for the Explore section using the Classification 1 - Home Location and Classification 2 - Safe and Unsafe/Hazardous Table handouts to classify the items in the box.

- 2) For the proper disposal of the items Kindergarteners can place all the items in the Permanent Center category while for grades 1 - 2, students should be able to sort the hazardous materials into their specific disposal centers.
- 3) Conclude the learning sequence by reviewing the items in the box together and asking the students to explain or justify why they placed each item in each location and why it was classified as safe or unsafe.

Resources

[Los Angeles County Household Hazardous Waste Collection Program](#)

[Household Hazardous Waste](#)

[Electronic Waste \(E-Waste\)](#)

[Paint Recycling](#)

[Household Battery Disposal](#)

[Used Motor Oil](#)

[Sharps Disposal](#)

[Pharmaceuticals](#)

[No Drugs Down the Drain Program | Los Angeles County Sanitation Districts](#)

[Medications in the Environment | Los Angeles County Sanitation Districts](#)

[Further Information | Los Angeles County Sanitation Districts](#)

Appendix 1 - Parent Letter

[Date]

Dear (K-2nd) Parents and Guardians,

Hoping this letter finds you well. We are excited to inform you about an upcoming educational unit that will be implemented across our Kindergarten through 2nd Grade classes. Our focus will be on household hazardous waste (HHW), aiming to educate our young learners about safety precautions and the proper disposal methods for these potentially harmful items.

ABOUT THE UNIT

Student Safety: Our foremost priority is to ensure the safety and well-being of our students. Through age-appropriate lessons and activities, we will educate them about recognizing household hazardous materials and understanding the risks associated with them.

Environmental Awareness: By introducing students to the concept of proper disposal, we aim to foster a sense of environmental responsibility from a young age. This knowledge will empower them to make informed decisions in the future, benefiting both their immediate surroundings and the broader community.

Key Topics to be Covered:

- o Identification of common household hazardous waste items and their possible home locations.
- o Safe handling and storage practices.
- o Introduction to recycling and disposal methods that are both safe and environmentally friendly.
- o Role-play scenarios to reinforce learning and encourage practical application of knowledge.

Classroom Activities:

We will be teaching and learning through a series of interactive and engaging activities tailored to each grade level. Simple illustrations and stories will be used to introduce the concept of safe practices at home. Students will participate in hands-on activities, such as sorting pictures of items into 'safe' and 'hazardous' categories. Interactive discussions and group projects will be conducted, encouraging students to explore real-life scenarios and problem-solving.

Parental Involvement:

We encourage parents and guardians to reinforce these lessons at home by:

- Reviewing the materials sent home with your child.
- Discussing household safety practices as a family.
- Ensuring that hazardous items are stored securely and disposed of correctly.

Safety Measures:

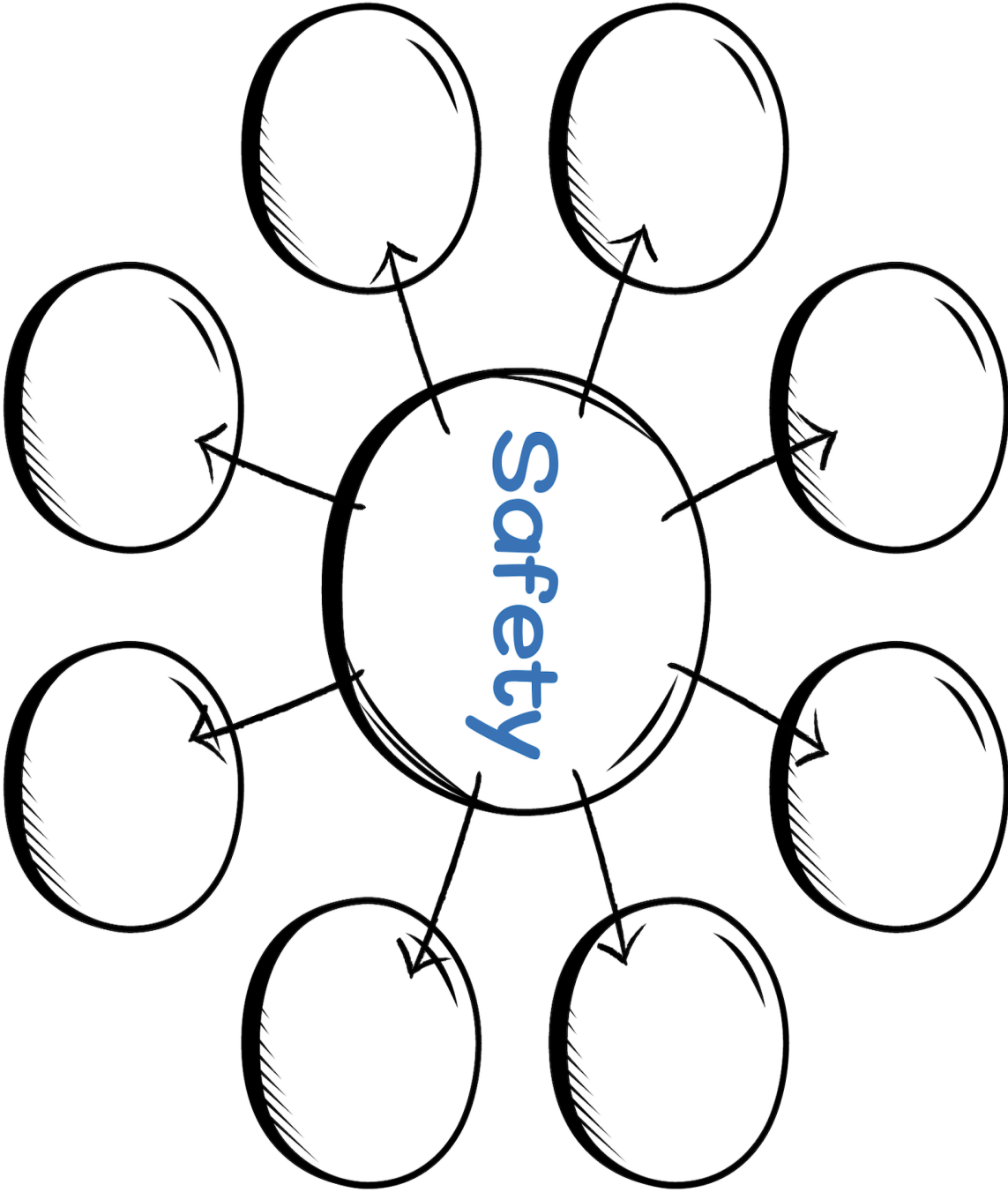
Please be assured that all activities will be conducted in a controlled and supervised environment. We will ensure that content is age-appropriate and sensitive to individual needs.

We believe that equipping our students with knowledge about household hazardous waste is crucial for their safety and the well-being of our community. Your support and cooperation in this educational endeavor are greatly appreciated.

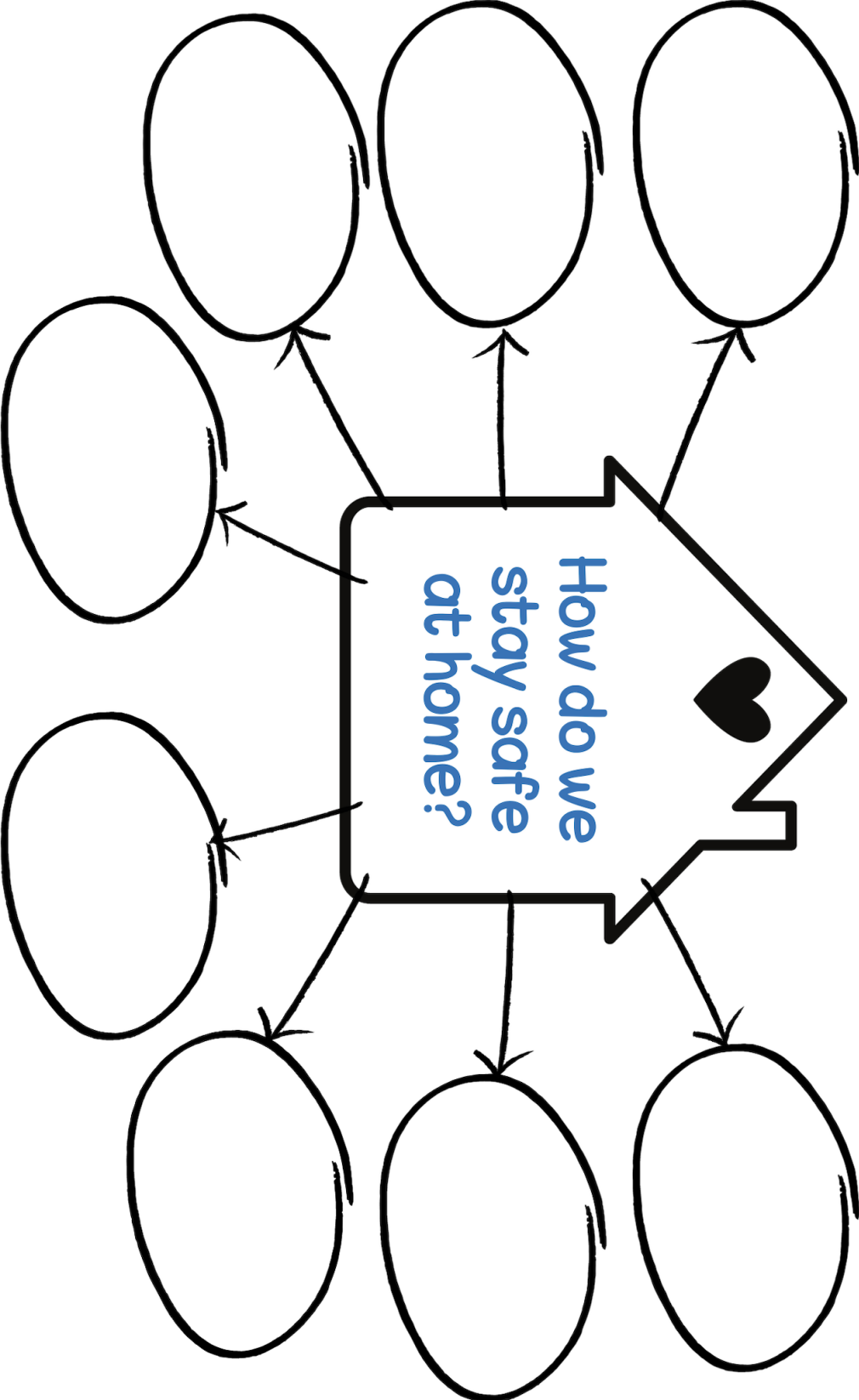
Should you have any questions or concerns regarding this unit, please do not hesitate to contact me. Thank you for your continued partnership in your child's education.

Warm regards,
[Teacher's Name / School Principal's Name]
[School Name]
[Contact Information]

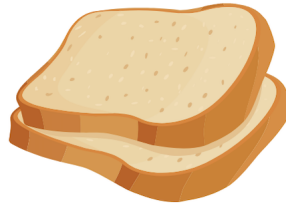
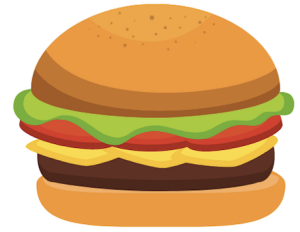
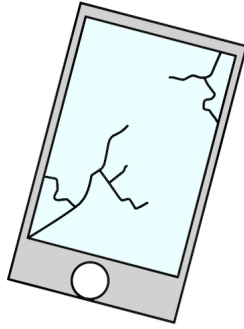
Appendix 2 - Handouts
Bubble Map 1 - What is Safety?



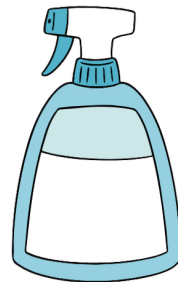
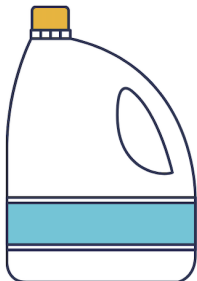
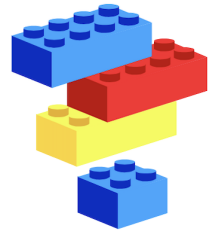
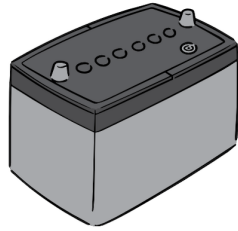
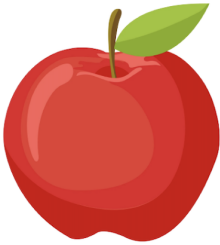
SAFETY AT HOME



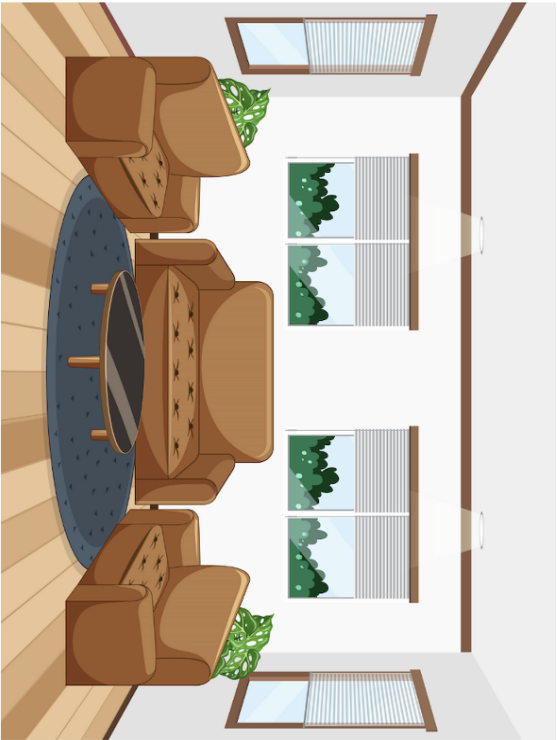
Safe and Unsafe/Hazardous Items







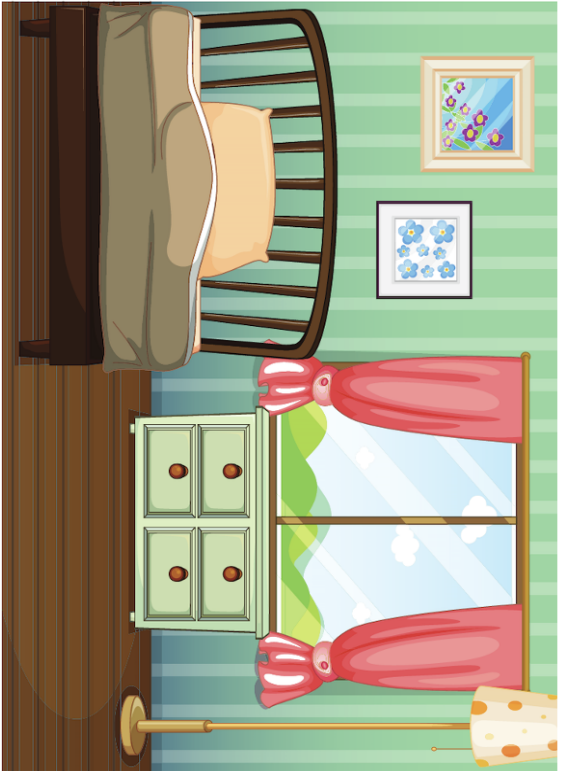



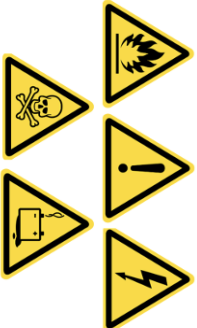
LIVING ROOM



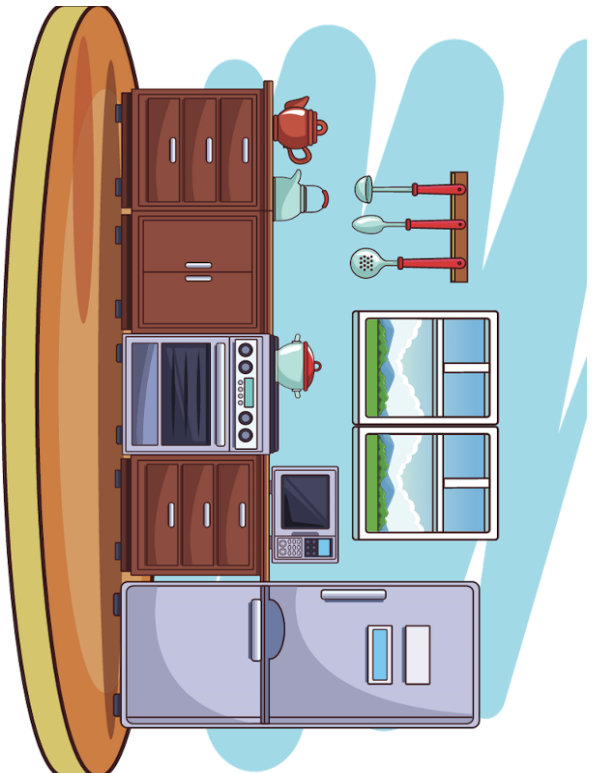
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BEDROOM



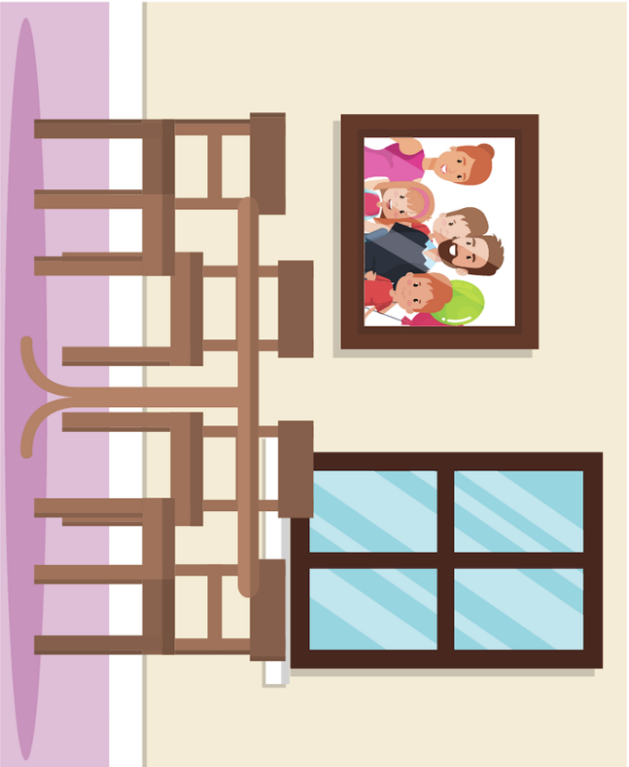
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KITCHEN



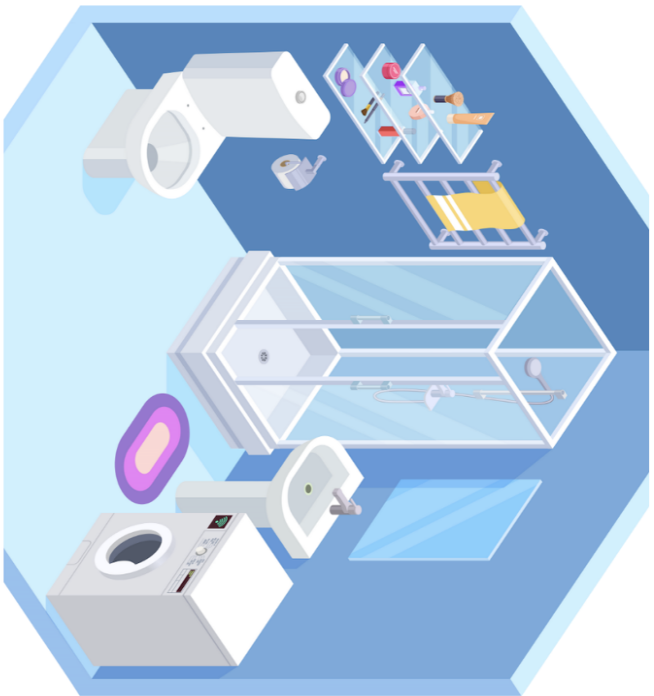
<p>SAFE</p> 	<p>UNSAFE/ HAZARDOUS</p> 



DINING ROOM



<p>SAFE</p> 	<p>UNSAFE/ HAZARDOUS</p> 



BATHROOM



<p>SAFE</p> 	<p>UNSAFE/ HAZARDOUS</p> 



GARAGE



<p>SAFE</p> 	<p>UNSAFE/ HAZARDOUS</p> 
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LAUNDRY ROOM



<p>SAFE</p> 	<p>UNSAFE/ HAZARDOUS</p> 
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MAKING YOUR NEW HOME SAFE

You are playing in the backyard of your new home. You come across a box that is filled with a lot of items that need to be placed in their appropriate location in your house. An adult in your house needs your help sorting these items as Safe or Unsafe, like you did in today's activity at school. Make sure you are able to explain why the items are safe or unsafe/hazardous.



Appendix 3 - Collection Centers

[California Poison Control System](#)

[LA County PW Upcoming Events Events](#)

[LA County PW Permanent & Temporary Centers](#)

[Household Hazardous Waste Reuse Center](#)