



Indoor Maintenance Workshop
FACILITATOR'S
MANUAL

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Introduction

Many new homeowners, or partner families in this workshop, may struggle to maintain their home. Common problems among new homeowners include knowing how to make cheap and effective cleaning supplies, how to properly repaint walls, how to maintain appliances and mechanical systems, how to maintain energy efficiency, and how to use the home warranty.

Your goal, as co-facilitator of this workshop, is to inform the partner families how they can successfully maintain their home in an economical and efficient manner. This packet will be your guide throughout the workshop and will cover everything you will need to bring, say, demonstrate, and explain. Also included are assessment and evaluation materials, so partner families can demonstrate their understanding of the new material they have learned and provide meaningful feedback on their learning experience.

The overall flow of the instruction will be as follows.

Cleaning Supplies Section (15 minutes):

- Instruction led by the co-facilitators
- A short activity on how to choose cleaning supplies

Repainting Section (10 minutes):

- Instruction led by the co-facilitators
- A short activity on the steps involved in repainting

Maintenance of Appliances and Mechanical Systems Section (25 minutes):

- Instruction led by the co-facilitators
- A demonstration of how to properly clean the dryer lint and dryer vent
- A short fill-in-the-blanks activity on the proper frequency to maintain appliances and mechanical systems.

Achieving and Maintaining Energy Efficiency Section (10 minutes):

- Instruction led by the co-facilitators
- A short-answer activity

Home Warranty Section (10 minutes)

- Instruction led by the co-facilitators
- A short quiz on the Habitat home warranty

Each section is broken down into 5 components:

1. **Introduction:** Provides an overview of the section for you.
2. **Objectives:** This is what the partner families will learn in each section.
3. **Materials:** These are the items you will need for each section.
4. **Preparation:** What you need to do to be ready for each section.
5. **Procedure:** These steps are what you will read to the partner families

Objectives are designed to give you a specific idea on what will be taught, measured, and assessed throughout the course of the workshop.

Goal

By the end of the Habitat for Humanity Indoor Maintenance Workshop, new homeowners will be able to:

- Choose, create, and use appropriate cleaning supplies for various surfaces,
- Identify and choose appropriate materials for repainting,
- Demonstrate and describe proper care and maintenance of appliances and mechanical systems,
- Explain how to maintain energy efficiency throughout the home
- Describe how to use their 1-year home warranty

Objective 1

By the end of the Cleaning Supplies section, partner families will be able to demonstrate their understanding of how to choose, create, and use appropriate cleaning supplies by answering five scenarios with 90% accuracy, while using a table, decision tree and peers as resources.

Objective 2

By the end of the Repainting section, partner families will be able to write the steps of proper repainting, while using their guide and peers as resources.

Objective 3

By the end of the Maintenance of Appliances and Mechanical Systems section, partner families will be able to demonstrate proper care and maintenance of appliances and mechanical systems of their homes by completing a short fill-in-the-blank activity with 90% accuracy, while using their guide and peers as resources.

Objective 4

By the end of the Achieving and Maintaining Energy Efficiency section, partner families will be able to complete a short-answer assessment with 90% accuracy, while using their guide and peers as resources.

Objective 5

By the end of the Home Warranty section, partner families will be able to answer a 7-question quiz and correct their answers to 100% accuracy after participating in a post-quiz discussion with the co-facilitators.

Objective 6

By the end of the workshop, partner families will be able to complete a written assessment over each of the five sections outlined above, with 80% accuracy.

Materials

Introductory / All Activities:

- Facilitator's Guide
- Participant's Guide
- Posters
- Pencils/pens

Chapter 1:

- Liquid dish soap
- White vinegar
- Apple cider vinegar
- Baking soda
- Examples of all purpose cleaners (Lysol, Mr. Clean, Method)
- Ammonia
- Trisodium Phosphate (TSP)
- Bleach
- Sponge
- Mop
- Broom

Chapter 2:

- Bucket to mix demonstration cleaning supply
- Sponge
- Small section of wall with trim
- Painter's Tape
- Collection of paint brushes and rollers

Chapter 3:

- Lint trap
- Dryer vent
- Dryer vent cleaning tool
- Air Filter

Chapter 4:

- LED Light bulb examples

Welcome the Partner Families

GREET the partner families as they enter the workshop. Introduce yourself and thank them for coming to the workshop.

GIVE the partner families a copy of the “Partner Family’s Guide” and a pen or pencil if they need one.

ASK the partner families to take a seat and let them know you’ll be beginning shortly.

SAY *“Before we begin, please take a moment to look through your guide. We will be discussing five areas today: Cleaning Supplies, Repainting, Appliance and Mechanical Systems Maintenance, Achieving and Maintaining Energy Efficiency, and your Home Warranty. Some of this material you may already be familiar with, but everything that is being covered today is incredibly important for keeping your home in the best possible condition. Each section will have some instruction which will be led by us, but we will also have discussions, activities, and problems for you to solve throughout the workshop as well. So, with that in mind, let’s begin with the cleaning supplies section, and a short story of something that has maybe happened to you in the past! But hopefully not...”*

CHAPTER 1

Choosing and Creating Your Own Cleaning Supplies



Introduction

Living Spaces can become dirty quickly, especially if there are children or pets. This chapter will lay out specific ways to clean the variety of surfaces in a home and how to create cleaning supplies from common household items.

Objectives

By the end of the Cleaning Supplies section, partner families will be able to demonstrate their understanding of how to choose, create, and use appropriate cleaning supplies by answering scenarios related to cleaning with 90% accuracy.

Materials

Liquid dish soap
Warm water
White vinegar
Apple cider vinegar
Baking soda
An all purpose cleaner (Lysol, Mr. Clean, Method)
Ammonia
TSP

Preparation

To prepare for this section, make sure all the cleaning supplies have been laid out on the table.

Procedures

Gain Attention

SAY the following story: *“One time, I was cleaning the kids bathroom in my house and found a wet towel laying next the shower. It looked like it had been there a while. When I removed it, I was shocked to find mold growing underneath it and up the wall. I wasn’t sure how I could safely remove the mold.”*

* NOTE You may use any method or story you feel comfortable with to gain the participants’ attention. If you have another story about cleaning supplies/situations, feel free to use that instead.

Share Learning Objectives

SAY *“Today, we are going to learn how to handle tricky situations like mold growing on our walls and stains on various household surfaces. By the end of the cleaning section, you will be able to identify common ingredients used in homemade cleaning supplies and choose appropriate cleaning supplies for the various surfaces within your home.”*

Inquire about Previous Experiences

ASK *“How would you have handled the mold situation?”*

Call on 1-3 people to share their responses. If no one shares:

SAY *“It’s ok if you don’t know what to do, but go ahead and take a guess.”*

If someone does share:

SAY *“Thank you for sharing your stories. It seems some of you have experienced this before and have an idea of what to do.”*

Present Content

SAY *“Let’s turn to page 6 in your guide to find some ways we can deal with this mold problem. On page 6 and 7, you’ll see two tables that display the different types of cleaning supplies you can create at home, as well as, mixtures that work for different situations.”*

*Note: See tables on pages 12 and 13 of the Facilitator’s Guide.

SAY *“Take a minute to look over table 1.1 and 1.2. Think about which of these cleaning supplies you have used before or which of these items surprise you.”*

After one minute has passed:

SAY *“Now that you’ve had a chance to look those over, I would like you to turn to someone next to you and share with them one thing you found on this table that you have used at home or that surprised you. Take a few minutes to share with your partner.”*

After two minutes have passed:

SAY *“Ok, Who would like to share something you discussed with your partner?”*

Call on 1-2 people to share. If no one volunteers:

SAY *“I noticed liquid dish soap mixtures are on this table. I never thought about cleaning my cabinets with a liquid dish soap mixture before. I found this to be an interesting idea. Did anyone else find this or something else on this table interesting?”*

Call on 1-2 people to share. If no one volunteers:

SAY *“Alright, now I want you to take a few minutes to share a question you have about this table, or items on this table, with someone around you.”*

After two minutes have passed:

SAY *“Who wants to share any questions they have?”*

Call on 1-3 people:

Questions may include, *“Can you explain more about what TSP is?”*, *“Why does it have to be white vinegar?”*, *“How do I make sure the liquid dish soap I buy doesn’t have extra lotions?”*

Answers may include, *“TSP is a very powerful cleaner used to clean surfaces before painting. You can add bleach to TSP to help remove mildew. It is not recommended to use TSP often or on materials such as metal, painted surfaces, wood, or glass as it can stain, damage or leave a film on them.”*, *“White vinegar will not stain as it is clear. Vinegar is a weak acetic acid and can be used to clean most surfaces and buildup.”*, *“Be sure to read the bottle carefully; they often say if they have added lotions.”*

If no one has any questions:

SAY *“It’s ok if you don’t have questions right now. But I do want to direct your attention to the part of the table labeled ‘TSP’. TSP stands for ‘Trisodium Phosphate and is a very powerful cleaner used to clean surfaces before painting. You can add bleach to TSP to help remove mildew. It is not recommended to use TSP often or on materials such as metal, painted surfaces, wood, or glass as it can stain, damage or leave a film on them.”*

If there are no other questions:

SAY *“Now that you’ve seen the table of cleaning solutions, you’re probably wondering ‘how will I know when to use each solution’? If you turn to page 8 in your book, you’ll see a decision tree labeled, ‘What Can I Use to Clean...?’. This decision tree is designed to be a quick reference to help you figure out which cleaning solution to use in different situations.”*

*Note: See flow chart on page 14 of the Facilitator’s Guide.

Introduce Activity

SAY *“Let’s practice using tables 1.1, 1.2, and the decision tree. Please turn to page 9 in your guide to view the Cleaning Scenarios activity.”*

Wait 30 seconds, or until you can see that everyone is on the same page.

SAY *“This is the Cleaning Scenarios activity. Use the tables 1.1, 1.2, and the decision tree to help you respond to the following scenarios. Take 5 minutes or so to read and complete the activity. Please, feel free to use your guide and fellow classmates as resources. You may work with a partner if you like.”*

Introduce Activity: Cleaning Scenarios

Copy of activity with answers.

1. While cooking spaghetti, you accidentally spilled tomato sauce on your vinyl and wood floor. After using a rag or towel to clean up the bulk of the mess, what cleaning mixtures can you use to clean your vinyl floor? Be sure to include all possible mixtures.

(Liquid Dish Soap Mixture 1, Vinegar Mixtures 1 and 2, or All-Purpose Cleaners)

2. During your morning routine, you accidentally spill coffee on your carpet. What cleaning mixtures can you use to clean and prevent the spill from becoming a stain in your carpet? Be sure to include all possible mixtures.

(Liquid Dish Soap Mixture 2 and Vinegar Mixture 2)

3. After cooking dinner on your stove, you notice some food particles have built up on your cabinets and countertops. What cleaning mixtures can you use to clean your cabinets and countertops? Be sure to include all possible mixtures.

(Dish Soap Mixture 1, Vinegar Mixture 1, and All-Purpose Cleaners)

4. In your bathroom, you notice mildew growing on your walls. What cleaning mixtures can you use to clean the mildew on your walls? Be sure to include all possible mixtures.

(TSP)

5. You have not cleaned out your fridge in the last year. You notice inside your fridge there is a spill and a strange odor. What cleaning mixtures can you use to clean your fridge? Be sure to include all possible mixtures.

(Vinegar Mixture 4 and Baking Soda Mixture 1)

Provide Feedback

Walk around and observe partner families, being sure to confirm the instructions for those who may not have understood the directions; Offer praise to those students who are doing well and support to those students who are having difficulty. Some suggestions for feedback include, “that looks great!”, “Excellent work!” and so on.

After five minutes have passed, ask participants to stop working.

SAY “Let’s look at Question 1: While cooking spaghetti, you accidentally spilled tomato sauce on your vinyl and wood floor. After using a rag or towel to clean up the bulk of the mess, what cleaning mixtures can you use to clean your vinyl floor?”

Call on 1 or 2 volunteers. When the volunteer has given their answer:

SAY “Ok. Who else chose that mixture for this scenario?”

Provide 30 seconds of time for participants to raise hands and look around. Pick up the liquid dish soap.

SAY “Some of you chose to use the liquid dish soap mixture. There are two different concentrations you can mix depending on the surface you choose to clean.”

Put the liquid dish soap down and pick up the white vinegar.

SAY “Some of you chose to use vinegar. There are four different mixtures you can use depending on the surface you want to clean. You will notice I am holding white vinegar. Since it is white, it is less likely to stain and is the preferred choice in vinegar solutions.”

Put the white vinegar down and pick up the apple cider vinegar.

SAY “You can use apple cider vinegar in some solutions, such as the one for cleaning out the fridge and other major appliances. Just be sure to double check the mixture to make sure you are using the right type of vinegar.”

Put the apple cider vinegar down. Pick up an all purpose cleaner of your choice.

SAY “Some of you mentioned using an all-purpose cleaner. These work on most surfaces, but may cost a bit more than liquid dish soap or vinegar. Be sure to use what you feel comfortable using.”

Put down the all purpose cleaner.

SAY “Alright, moving on to Question 2: During your morning routine, you accidentally spill coffee on your carpet. Which cleaning mixtures did you choose to use?”

Call on 1 or 2 volunteers. When the volunteer has given their answer :

SAY “Yes, you can use Liquid Dish Soap Mixture 2 and Vinegar Mixture 2 to clean up stains.”

SAY “Let’s move on to Question 3: After cooking dinner on your stove, you notice some food particles have built up on your cabinets and countertops. What cleaning mixtures can you use to clean your cabinets and countertops?”

Call on 1 or 2 volunteers. When the volunteer has given their answer :

SAY “Yes, you can use Dish Soap Mixture 1, Vinegar Mixture 1, and All-Purpose Cleaners to clean your countertops.”

SAY “Moving on to Question 4: In your bathroom, you notice mildew growing on your walls. What cleaning mixtures can you use to clean the mildew on your walls?”

Call on 1 or 2 volunteers. When the volunteer has given their answer :

SAY “Yes, you can use TSP or Trisodium Phosphate to clean mold off walls. Remember that TSP is a highly concentrated chemical. You should be sure to follow the directions on the packaging and remember to use it sparingly.”

SAY “And last, but not least, Question 5: You have not cleaned out your fridge in the last year. You notice inside your fridge there is a spill and a strange odor. What cleaning mixtures can you use to clean your fridge?”

Call on 1 or 2 volunteers. When the volunteer has given their answer:

SAY “Yes, you can use Vinegar Mixture 4 and Baking Soda Mixture 1 to clean your fridge. Baking soda acts as a scrubbing agent and can remove buildup.”

Conclude Chapter

SAY “As you can see, liquid dish soap and vinegar can be used to clean just about any surface. Be sure to reference these tools if you ever have questions about what to use to clean a specific surface in your house. Before we continue, does anyone have questions about the table, flow chart or activity we just did?”

If there are questions:

Do your best to answer them. Be sure to direct them to the table, decision tree and extra material on pages 6, 7, and 8.

If there are no questions:

SAY “There are more detailed instructions in your guide on pages 10 through 12 on how to clean each surface. If there are no more questions, we will move on to section 2, Repainting Your Home.”

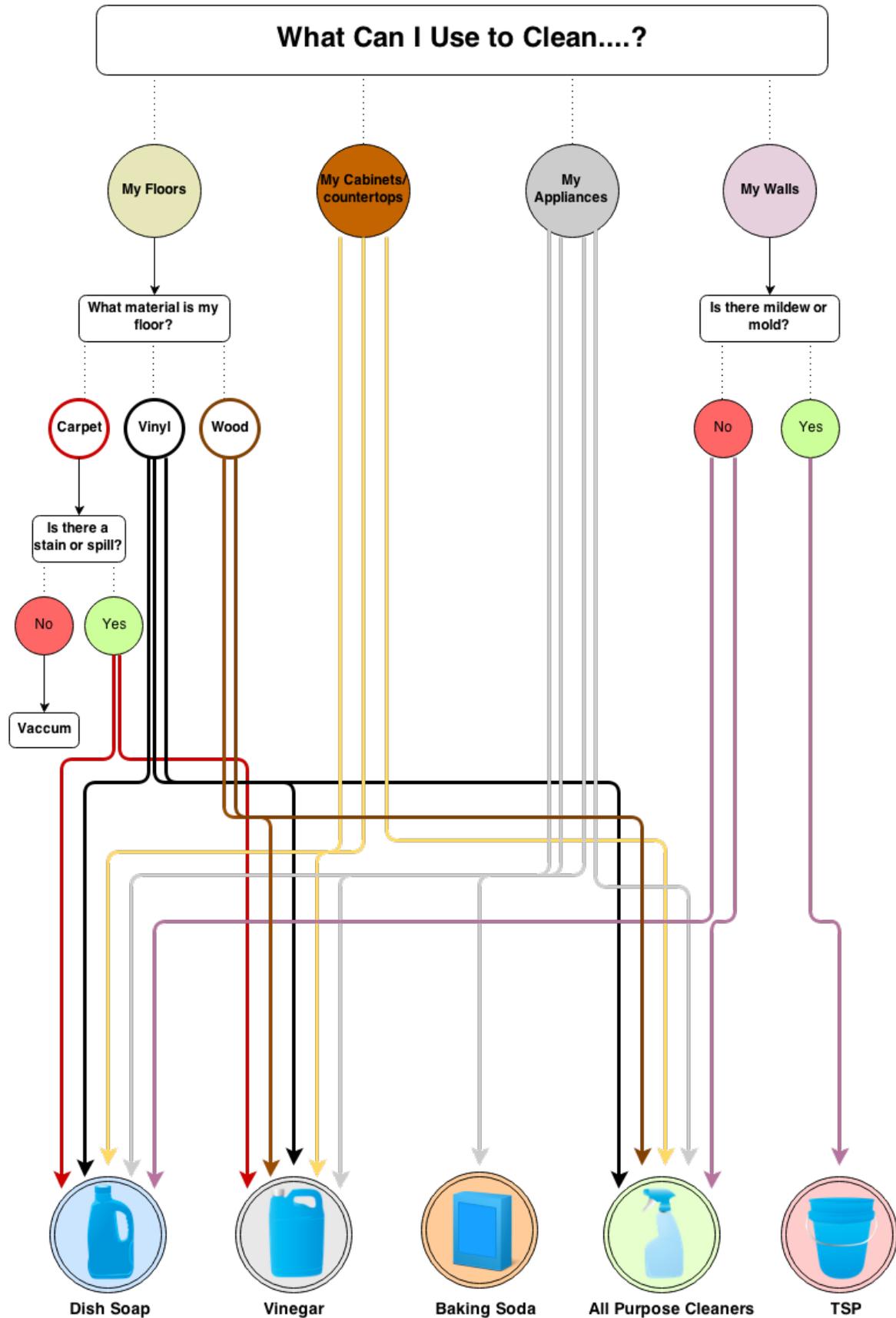
If there are no questions, you may move on to the next section.

Table 1.1

Liquid Dish Soap Solution				
	Mixture	Surfaces	Removes	Notes
1	Add 1 part dish soap to 10 parts warm water or a couple of drops of dish soap in warm water.	<ul style="list-style-type: none"> • Most cabinets • Metal • Plastic laminate • Painted wood • Painted walls • Vinyl 	<ul style="list-style-type: none"> • Fingerprints • Food smudges • Greasy buildup • Dust 	<p>Rinse thoroughly with another clean cloth, before drying with a final cloth.</p> <p>Avoid soap that has extra lotions.</p>
2	¼ teaspoon of a clear dishwashing liquid with 1 cup of warm water.	<ul style="list-style-type: none"> • Carpets 	<ul style="list-style-type: none"> • Stains 	Avoid soaps that have bleach or lanolin in them.
Vinegar				
	Mixture	Surfaces	Removes	Notes
1	Add ¼ cup of white vinegar to a quart of warm water.	<ul style="list-style-type: none"> • Vinyl flooring • Wood floors • Counter tops • Appliances 	<ul style="list-style-type: none"> • Fingerprints • Food smudges • Greasy buildup 	Rinse mop frequently when cleaning floor.
2	Mix 1 cup white vinegar with 1 cup warm water.	<ul style="list-style-type: none"> • Carpets 	<ul style="list-style-type: none"> • Tea stains • Coffee stains 	Plain water can also be used to clean up spills. Be careful, can sometimes set other dye stains.
3	½ cup white vinegar, ¼ cup baking soda, 1 cup ammonia to one gallon of water.	<ul style="list-style-type: none"> • Painted walls • Woodwork • Wood floors 	<ul style="list-style-type: none"> • Grease • Buildup 	Walls must be cleaned and patched prior to painting. Be sure to rinse with clean water.
4	1 part Apple Cider Vinegar to 1 quart hot water.	<ul style="list-style-type: none"> • Inside stove • Inside fridge • Inside dishwasher 	<ul style="list-style-type: none"> • Food buildup • Stains 	This mixture will help prevent food from absorbing chemical smells.

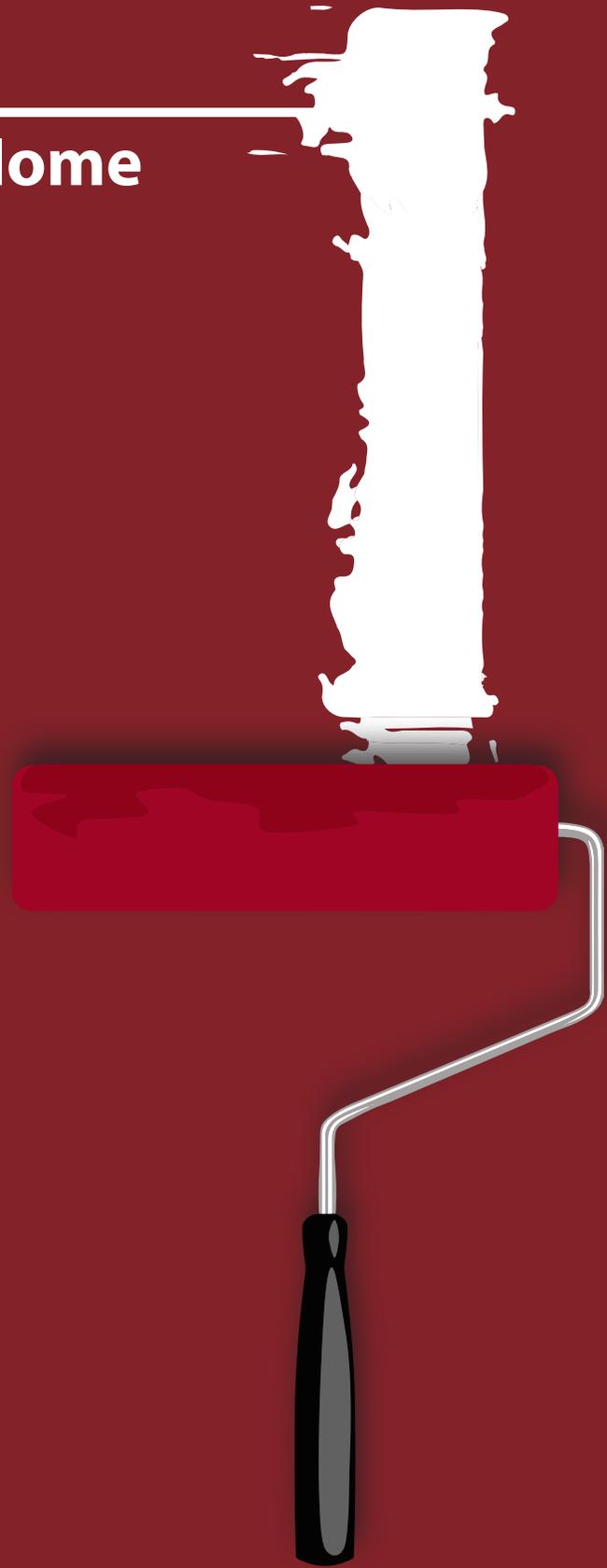
Table 1.2

Baking Soda				
Mixture		Surfaces	Removes	Notes
1	2 tablespoons of baking soda and 1 quart.	<ul style="list-style-type: none"> • Inside stove • Inside fridge • Inside dishwasher 	<ul style="list-style-type: none"> • Food buildup • Stains • Tough spots 	The baking soda acts as a scrubbing agent and absorbs unwanted smells.
2	½ cup white vinegar, ¼ cup baking soda, 1 cup ammonia to one gallon of water.	<ul style="list-style-type: none"> • Painted walls • Woodwork • Wood floors 	<ul style="list-style-type: none"> • Grease • Buildup 	Used for tough stains and buildup.
All Purpose Cleaners				
Mixture		Surfaces	Removes	Notes
Lysol Mr. Clean Method Others...		Most surfaces	<ul style="list-style-type: none"> • Fingerprints • Food smudges • Greasy buildup • Dust 	Follow the instructions on the packaging to ensure proper use of the cleaning solution.
TSP				
Mixture		Surfaces	Removes	Notes
Can be bought at stores		<ul style="list-style-type: none"> • Painted walls • Woodwork 	<ul style="list-style-type: none"> • Stains • Grease • Buildup • Mildew 	TSP is a very powerful cleaner used to clean surfaces before painting. You can add bleach to TSP to help remove mildew. Not recommended for frequent use on metal, painted surfaces, wood, or glass as it can stain, damage or leave a film on them



CHAPTER 2

Repainting Your Home



Introduction

Many of the partner families are already eager to repaint their house in their own choice of color. Other partner families might find repainting is required after a few years of living in their new homes. Therefore, you will discuss the proper techniques for repainting.

Objectives

By the end of the Repainting Section, partner families will be able to write the steps of repainting.

Materials

Paints
Primer
Brush
Tape
Roller
Papers, cloth, or vinyl to cover the appliances and floors

Preparation

For the Repainting section, please take out the section of the wall with trim that you have brought, the painter's tape, and your collection of paint brushes. Have these supplies out and on the table, ready to use in your demonstration. You will also need to have a sponge and the liquid dish soap mixture from chapter 2 prepared and ready to use.

Procedures

Gain Attention

ASK the partner families whether there are any family who wants to repaint their homes. Questions may include, "*How many of you already want to repaint your house?*," "*What rooms are you thinking of painting?*", "*Do you know the steps and procedures for painting?*"

Share Learning Objectives

SAY "*In this section of the workshop, we will cover the 8 steps to repainting your home as well as, discuss the different types of paint and sheens, and talk about what types of paint are best for various rooms.*"

Present Content

SAY "*Please turn to the Steps of Repainting Table on page 16 of your guide. While I go through the steps of repainting, please write them down in the space provided.*"

Show poster # **1** -Painting Steps

SAY *“Step One is putting down the drop cloth.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“When you put down the drop cloth you will want to use painter’s tape to attached it to the trim. This will keep it from moving while you are working. You can also use an old sheet, but make sure it is thick, so that paint doesn’t bleed through it.”*

SAY *“Step Two is sanding the wall”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“Before you start painting, you’ll want to make sure there aren’t any bumps, paint chips, or raised surfaces on the wall. Sand out any of those spots so that your wall is flat and smooth”*

SAY *“Step Three is cleaning the wall.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“You should use a damp sponge and the liquid dish soap mixture from chapter 1. Start at the top of your walls and work your way down, using a circular motion to clean. You will need to let the walls dry once you finish washing them.”*

Demonstrate how to clean the wall using the sponge. Use a dry sponge and move it in a circular motion on the wall. It is best to start at the top and work down.

SAY *“Step Four is outlining with tape.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“You will want to outline the trim and windows and anything else you don’t want painted in painter’s tape. We recommend that they use blue painter’s tape or green frog tape. Taping can be done up to one week ahead and should be removed right after painting is done, but should be done carefully as removing the tape can strip paint off the wall.”*

Demonstrate how to put the tape on the trim. Stick one end down, then, slowly roll out the tape using your fingers to guide it onto the trim. You should make sure the tape is only covering the trim and not on the wall.

SAY *“Step Five is removing electrical outlet covers.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“Next, you should remove any electrical outlet covers and put tape over them. This will allow you to paint more quickly and smoothly.”*

SAY *“Step Six is priming the walls.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“You will need to apply primer before applying paint. Primer will improve the sheen of your paint and improve the overall quality and coverage of your paint.”*

SAY *“Step Seven is painting the walls.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“You will be using a paint roller and paint brush; the brush should be used in spots where the roller cannot reach. This is the same brushing technique as using primer.”*

SAY *“Step Eight is Using the ‘W’ Pattern.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“This is the recommended method for painting walls. You should paint by starting from the corner of a wall and rolling to make a W shape; do not lift the roller until you are finished making the W. This is the same technique for applying paint and primer.”*

Demonstrate how to roll the brush in a W pattern. Remember to not lift the brush until the W has been completed.

SAY *“Step Nine is Letting the Paint Dry and Removing Tape.”*

Wait a moment so that the partner families can write this down. Repeat the step to them if needed.

SAY *“You should let the paint dry completely before touching it or putting on a second coat. However, the painter’s tape can be removed as soon as the painting is complete.”*

Demonstrate how to slowly and carefully remove the tape from the trim.

SAY “Now that you know how to repaint, let’s talk about choosing paint. There are lots of options regarding the sheen or shininess of new paint. The common rule is, the higher the sheen, the higher the shine, and the higher the shine, the more durable it will be. However, the higher the sheen, the more defects will be seen as well. We call this ‘coverage’ - so the lower the coverage, the more you will be able to see the defects on the wall underneath the paint.”

SAY “Please look at the two charts on page 18.”

SAY “The first chart illustrates the effects of various finishes in terms of sheen, shine, durability, coverage, and cost. A matte, or flat, finish results in a low sheen, low shine, low durability, low coverage, and low cost. Whereas a high-gloss finish results in high sheen, high shine, high durability, high coverage, and high cost.

Flat	Eggshell	Satin	Semi-gloss	High-gloss
Low sheen				High sheen
Low shine				High shine
Less durable				More durable
Low coverage				High coverage
Low cost				High cost

SAY “The second chart explains which types of paint are best suited for particular rooms or areas, which is good to keep in mind if you decide to repaint.”

CHOOSING THE RIGHT PAINT SHEENS

<p>Kitchen</p>  <p>Use semi-gloss finish to increase durability and make cleaning easy.</p>	<p>Dining Room</p>  <p>Use eggshell finish to cover wall imperfections. However, it’s less durable.</p>	<p>Living Room</p>  <p>Use satin finish to make cleaning easy. Suitable for walls in high-traffic area.</p>	<p>Bedroom</p>  <p>Use flat or satin finishes to save money. Suitable for walls in low-traffic area.</p>
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Conclude Chapter

Ask the partner families if they have any questions or if they are confused about repainting, sheen, or anything else so far. If there are no questions, you may move on to the next section.

CHAPTER 3

Maintaining Appliances and Mechanical Systems



Introduction

Homes for partner families come with mechanical systems and major appliances. In order to keep these systems functioning properly, certain maintenance measures have to be taken. In this section we will cover two areas:

1. The maintenance of **mechanical systems**
 - Heating systems
 - Air conditioning systems
 - Water heater
2. The maintenance of **major appliances**
 - Dryer
 - Refrigerator

Objectives

By the end of this section, partner families will be able to demonstrate proper care and maintenance of appliances and mechanical systems of their homes by completing a short fill-in-the-blank activity with 100% accuracy, while using their guide and peers as resources.

Materials

Facilitator's Guide
Student's Guide
Dryer vent
Dryer vent cleaning tools
Lint trap
Air filter
Posters
Short assessment table

Preparation

For this section, please have the dryer vent, lint trap, air filter and dryer vent cleaning tools ready to be used in your demonstration. Additionally, please make sure you have the poster book on the table and open to poster # **2**

Procedures

Gain Attention

SAY *“Maintaining your mechanical systems and appliances is one of the most important aspects of home ownership. If these systems are not properly maintained, it can lead to damage, and even fires, in your home.”*

Share the Learning Objectives

SAY *“In this section we will discuss how to properly maintain your heating and cooling systems, water heater, dryer, and refrigerator.” Go ahead and turn to page 20 in your guide.*”

Present Content

Show Poster # **2** - The Heating System

SAY *“First, we will talk about how to maintain your heating systems. Your heating system should be checked every 2-3 years by a professional to make sure it is functioning properly. In order to keep your heating unit running efficiently and to help it last longer, you will also need to regularly maintain your air filter at least once a month.*”

Show Poster # **3** - Air Conditioning Systems

SAY *“Next we will talk about the Air Conditioning System, which some of your houses may not have. Outside of your house is the central AC unit, which has to be cleaned every spring in order to remove insects and leaves. Most of it can simply be hosed out, but you should also read through the instruction manual for your specific unit.”*”

Show Poster # **4** - Water Heater

SAY *“Now let’s talk about the water heater. The water heater and pipes leading into it can get very hot and there is danger of being burned if you touch it. Use caution and keep children and pets away from the area. Also, if the vent fan on top of the hot water heater ever stops working, it should be replaced immediately. Not doing so can cause serious issues to arise. In your new homes, the water heater will need to be plugged in and turned on before you can use it. Directions on how to do this are on the water heater.”*”

Show Poster # **5** - Dryer

SAY *“Now let’s talk about your dryer. One of every 22 household fires were caused by dryers, and over 1/3 of those fires happened because the vents were not being cleaned. To avoid fires, you should clean your lint trap after each use (show lint trap) and you should clean out your dryer vent at least once a year. You’ll want to make sure you clean the vent on both the inside and outside of the house. There are also some great videos on YouTube that can show you the process in detail as well. Also, a dryer vent brush like this one here (Show dryer vent brush) is an excellent tool for cleaning out the dust. Please take a minute and read through the steps on page 21 to see if you have any questions.”*”

*Note: Give the partner families 5 minutes to read through the steps below, when they are finished, ask them if anyone has questions.

Steps

1. Unplug the dryer.
2. Pull the dryer out just to the extension of your vent – this is usually about 2 feet.
3. Disconnect the vent hose from the back of the dryer.
4. Reach in to the back of the dryer and pull out any loose lint. A shop or house vacuum cleaner can help reach inside.
5. Reach into the vent tubing you just took off and pull out lint from there, as well. The vacuum works well here also.
6. Slide the clamp back over the vent. Re-attach the vent, tighten the clamp, and slide dryer back into place.
7. Remove the vent on the outside of the house as well. This one may have caulking around the cover, as well as screws. Use a razor knife to cut away the caulk. It may have a sleeve about a foot long. If this is the case, slide it straight out.
8. Reach in and clean out the lint or insert your vacuum cleaner tubing into the dryer exhaust tubing. You can reach as far as your arm will go or use the vacuum tubing.
9. Plug the dryer back in
10. Run dryer on air fluff for 10 minutes. Debris you just loosened may fly out, so don't stand right outside.
11. Recheck the outside vent for obstructions and reattach the outside vent.

SAY “Next up, your refrigerator. It’s important to clean out the inside of your refrigerator every two months. Having a refrigerator that is over packed prevents proper air circulation and reduces efficiency. Cleaning out the inside of the fridge forces you to toss out expired and stale food. Please read through the steps on page 22 and see if you have any questions on how to do this.”

*Note: Give the partner families several minutes to read through the steps below and when they are finished, ask them if anyone has questions.

Steps

1. Take all your food out of the fridge.
2. Take out any shelving and drawers.
3. Wash the shelves and drawers by hand using soap and water. Never use hot water on cold shelves as it can cause the glass to shatter.
4. For heavy-duty spills and/or stains, don't be afraid to use water and ammonia. Dilute a little bit of ammonia in hot water (1:5 ratio should be plenty) and let the item(s) soak before scrubbing.
5. Wipe the inside of the refrigerator with your preferred cleaning solution.
6. You probably don't want to use soap or a chemical cleaner on the inside of the fridge, as food will absorb the smell. Instead, use one of the following natural cleaning solutions:
7. 2 tablespoons of baking soda and 1 quart hot water

8. 1 part apple cider vinegar to 3 parts hot water
9. For really stubborn stains or buildups, try using a dab of white toothpaste.
10. Dry the shelves and drawers before putting them back in the fridge.
11. Put the food back in the fridge after checking the expiration dates and looking for any leaking containers.

Show Poster # **6** - Back of Refrigerator

Cleaning Coils, Compressor and Fan

SAY “Dust will accumulate around the coils and fans at the back of the refrigerator which will reduce the efficiency of your refrigerator. Once a year you should clean the coils, compressor and fan. Please take a moment to read the steps on page 22 and ask if you have any questions.”

*Note: Give the partner families several minutes to read through the steps below and when they are finished, ask them if anyone has questions.

Steps

1. Unplug the refrigerator and shut off water supply lines if you have an ice maker or water dispenser.
2. Remove the cardboard from the back of the refrigerator covering the coils and fans that sit at the bottom of the refrigerator.
3. Vacuum the coil. With a plastic crevice or brush attachment, carefully vacuum dirt and dust wherever it is seen. Use care not to damage the fins or coil. A breach created in the coil will allow the refrigerant to escape and will likely result in an expensive repair.
4. Vacuum the fan. If the fan is visible and accessible, cleaning it will help it move air across the condenser coil as designed. Dirt and dust, if allowed to accumulate on the fan blades, decreases airflow, affects balance and can contribute to early failure of the compressor.
5. Brush away stubborn dirt and dust. Use a narrow paintbrush to gently remove stubborn dirt and dust from the coil and fan if able to get sufficient access.
6. Remove the cover from the front of the refrigerator below the door. This cover can be cleaned with hot water and a mild cleaning solution.
7. Vacuum the coils and replace the cover.
8. Slide refrigerator back into position. Plug the refrigerator back into wall outlet. Arrange any water supply lines and power cords so that they will not be kinked or crushed by the refrigerator.

SAY “Now that we have finished covering mechanical systems and appliances, we will go over some miscellaneous items such as checking your smoke detectors and crawl spaces.”

Crawl Space

SAY “Let’s begin with crawl spaces. The crawl space is the space beneath your house. From there, you can access some plumbing and insulation. You should check your crawl space once a year for dead animals, leaking pipes, falling insulation, and signs of wear or fatigue on the foundation.”

Smoke Alarm

SAY “Now let’s talk about smoke detectors. Smoke detectors use batteries, which means they will need to be replaced. You should test your smoke detector and change the batteries once a year.”

Introduce Activity: Time for Maintenance

Ask the partner families to fill out the short fill-in-the-blanks assessment, which will have them answer how many times a year a specific appliance or mechanical system has to be maintained. Ask all participants to fill out the first question together, in order to model how the rest of the questions should be answered.

SAY “Please take a few minutes and complete the rest of this activity. I am here if you have any questions you would like to ask.”

HOW OFTEN DO I HAVE TO MAINTAIN MY MECHANICAL SYSTEMS AND APPLIANCES?

	Air filter should be replaced <u>once a month</u> (how often?)		Fridge coils, compressor and fan should be vacuumed <u>once a year</u> (how often?)
	Fridge should be emptied and cleaned inside <u>every two months</u> (how often?)		Dryer vent hose should be cleaned <u>once a year</u> (how often?)
	AC unit should be hosed out <u>once a year</u> (how often?)		Dryer lint trap should be cleaned <u>after each use</u> (how often?)
	If I notice the vent fan on the water heater does not work, I will <u>immediately replace it</u> (do what?)		Batteries on smoke detectors need to be replaced <u>once a year</u> (how often?)
	Crawl spaces should be checked <u>once a year</u> (how often?)		Your heating unit should be checked by a professional <u>every 2-3 years</u> (how often?)

Provide Feedback

Walk around and observe partner families, being sure to confirm the instructions for those who may not have understood the directions; Offer praise to those students who are doing well and support to those students who are having difficulty. Some suggestions for feedback include, “that looks great!”, “Excellent work!” and so on

Conclude Chapter

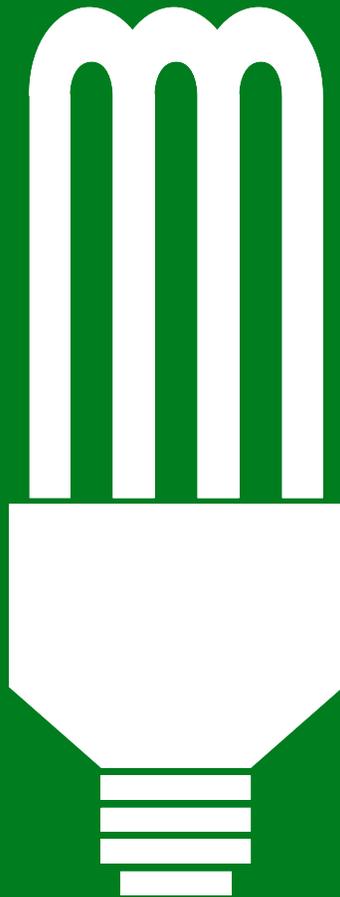
Ask participants if they have any questions or if they are struggling to finish the activity.

Display the poster of the completed activity and walk through the answers with the partner families, being sure to allow time for them to make any corrections.

Ask partner families if they have any questions about the maintenance of appliances and mechanical systems. If there are no questions, you may move on to the next section.

CHAPTER 4

Achieving and Maintaining Energy Efficiency



Introduction

A great deal of work goes into achieving energy efficiency standards in new Habitat for Humanity homes, some of which you might already be familiar with. We believe it is not only important for our partner families to know how to maintain an energy efficiency home, but also to understand the features that are already in place that help their homes reach such a high level of energy efficiency.

Objectives

By the end of the “Achieving and Maintaining Energy Efficiency” section, partner families will be able to complete a short-answer assessment with 100% accuracy, while using their guide and peers as resources.

Materials

Facilitator’s Guide
Student’s Guide
Pens/Pencils
Examples of LED Light bulbs if available

Preparation

Prior to this section, the co-facilitators should read through the procedure section below to ensure they are familiar with the material.

Procedures

Gain Attention

SAY “*Are you familiar with energy star appliances or energy star ratings? Do you know the significance of these ratings or how they are achieved?*”

Share the Learning Objectives

SAY “*Those are some good answers! In this chapter, we will learn about energy efficiency, what it means, how it was achieved in your new home, and what you can do to maintain energy efficiency.*”

Present the Content

SAY “*To start, let’s learn about how your new home has been built with energy efficiency in mind. Please read the Maintaining Energy Efficiency section with me on page 25 as I read aloud.*”

SAY “*All new Habitat for Humanity homes are designed to meet rigorous standards of energy efficiency and meet the qualifications created by the federal government to be*

considered Energy Star Homes. Not only will this save you money on heating and cooling costs, but, if maintained, will increase the value of your home as well.”

“There are three main reasons to build Energy Star Homes:

- To minimize air leakage into and out of the house*
- To maximize appliance efficiency*
- To ensure a home has proper insulation and ventilation*

Energy Star Homes have the following key features:

- The windows are double pane*
- The crawl space is insulated*
- There is maximum caulking between all walls and joints (The home has canned lights with energy efficient bulbs)*
- If available, demonstrate the variety of LED light bulbs, and which ones are appropriate for the house during this point*
- The furnace and hot water heater have quick recovery, which allow them to create heat faster than traditional appliances*
- All appliances conform to Energy Star Standards*

Many of these features help to ensure that the home is “tight,” which means little air enters or leaves the house. Because there is minimal air leakage, ventilation is very important. You should open the windows occasionally so that air can be exchanged and ventilation can be increased.

Also, should you need to replace an appliance, such as the water heater, or even a light bulb, you should replace it with the same energy efficiency quality as you have in your home now. This may be a high initial cost, but the amount of money you will save over time will more than make up for it. This is the same for any windows, siding, or insulation that you might need to replace.

With that being said, all of your appliances are designed to last a very long time, and you should have no need to replace anything for the next 5-10 years at the earliest. “

Ask the partner families if they have any questions over the material.

SAY “Do you have any questions?”

Introduce Activity: Energy Efficiency

SAY “Now it’s time for the activity in this chapter. Please complete the ‘Achieving and Maintaining Energy Efficiency Short Answer Activity’ on page 26 in your guides. The answers to all these questions can be found in your guide at the beginning of this section. Take a 5 minutes to work on this activity and if you have any questions you can ask me or anyone else in the class.”

Achieving and Maintaining Energy Efficiency Short Answer Activity

1. Because there is minimal air leakage in your new home **ventilation** is very important.
2. You should **open your windows** so that air can be exchanged and ventilation can be increased.
3. When you replace an appliance, you should do so with one that has the **same energy efficiency** as the one you have in your home right now.
4. All appliances in your new home conform to **energy star**.
5. In your own words, why is it important to maintain an energy efficient home?

Provide Feedback

After 5 minutes have passed.

SAY “Now that you’ve completed the quiz, let’s go over the answers”

Use the points above to discuss the proper answers with the partner families.

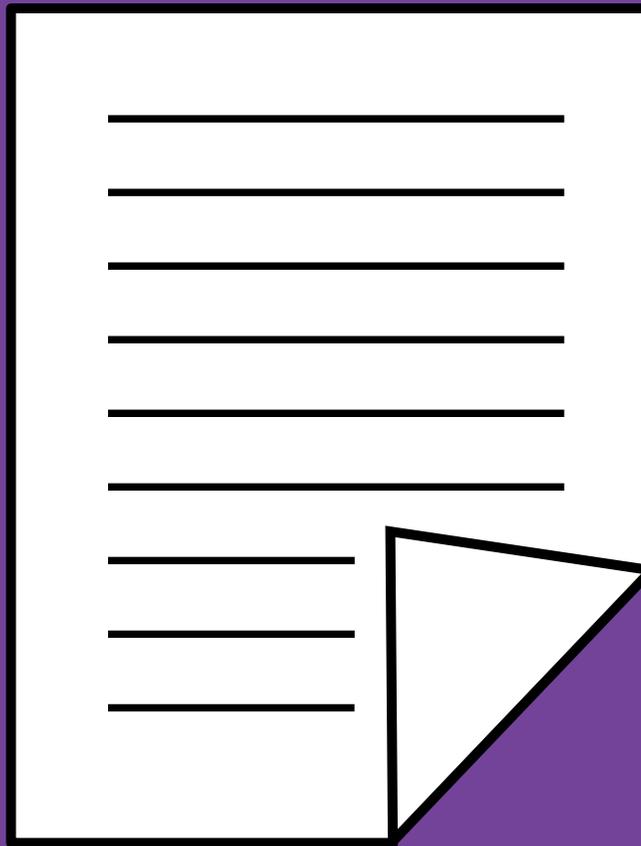
Conclude Chapter

Ask participants if they have any questions or if they are struggling to finish the activity.

Ask partner families if they have any questions about the Achieving and Maintaining Energy Efficiency. If there are no questions, you may move on to the next section.

CHAPTER 5

Your Habitat for Humanity Home Warranty



Introduction

All Habitat homes come with one-year warranty on all work that was done by our organization. Partner families need to understand what is covered by this warranty, what isn't covered, and how they should reach us if they have any grievances that need to be addressed.

Objectives

By the end of the “Home Warranty” warranty section, partner families will be able to answer a 7-question quiz and correct their answers to 100% accuracy after participating in a post-quiz discussion with the co-facilitators.

Materials

Facilitator's Guide
Student's Guide
Home Warranty Quiz
Pens/Pencils

Preparation

Prior to this section, the co-facilitators should read through the procedure section below to ensure they are familiar with the material.

Procedures

Gain Attention

SAY “For this last chapter, we’re going to talk about your home warranty, please read Home Warranty section along with me on page 28 as I read aloud.

SAY Your new home has a one-year warranty on all work done by Habitat. This warranty excludes damage resulting from regular wear and tear. There is also a one-year warranty on all subcontracted work such as plumbing, electrical, and heating and cooling

If you have a problem within the one-year warranty period involving work done by Habitat, you must submit a Warranty Request Form (which you can see on page 31) to the Habitat Director of Construction. You will receive a response from the Director of Construction within seven days which will be followed by a written agreement detailing the solution and date by which the problem will be fixed.

If the Director of Construction does not respond within seven days, you should contact the Family Services Director. These numbers are on the warranty request form.

If you have a problem with subcontracted work, you should contact the subcontractor directly.

Present Content

ASK the partner families to take a moment now to look over the Warranty Request form on page 31.

SAY “If you’ll notice, the form is designed to help you determine if you need to contact your subcontractor (for issues like electrical, plumbing, heating and cooling (HVAC), carpets/vinyl, drywall, gutters, or closet shelving) or if you’ll need to contact Habitat (for all other issues).”

Introduce Activity: Home Warranty Quiz

SAY “We will now take a short quiz over your Habitat Home Warranty. Please turn to page 28 and 29. If you are unsure of any of the answers, don’t worry. We will discuss each of the questions after the quiz is over, and this is more to see what you already know. Please take the quiz now, and then we will discuss. I’ll give you around 5-8 minutes to complete it before we go over it.”

*Note: Once the partner families are finished taking the quiz, go over the correct answers with them (highlighted below) and make sure to emphasize the “Notes for Instructor to Get Across” that are outlined after the quiz.

Habitat for Humanity of Monroe County Warranty Request Form

Name: _____

Date: ____/____/____

Address: _____

E-mail address: _____

Phone #1: (____) _____ Phone #2: (____) _____

Best way to contact you: _____

Best times for a home evaluation: _____

Please answer the following:

1. **Circle one answer:** Is this a mechanical problem - having to do with electrical, plumbing, or Heating and cooling (HVAC) or other subcontracted work such as carpets/vinyl, drywall, gutters, or closet shelving?

Yes (go to question 2) or No (skip to question 4)

2. **Circle one answer:** If you have a mechanical or other subcontractor problem as listed in #1, have you contacted your subcontractor?

Yes (go to question 3) or No (stop here and contact your subcontractor)

3. **Please summarize what happened with the subcontractor:** _____

4. **Please provide a description of your warranty issue:** _____

Return this form to:

Habitat for Humanity of Monroe County attn.: Director of Construction,
213 E. Kirkwood Avenue, Bloomington, IN 47408
or scan and e-mail to construction@monroecountyhabitat.org

Your grievance will be addressed by the Director of Construction within 7 days of receipt of this form and will be followed by a written response. If you do not hear back within this time frame, please contact the Family Services Director at 812-331-4069. Please make sure that all contact information is filled out and legible.

Home Warranty Quiz

(Assume all scenarios have occurred during the first year after move-in)

1. Your son breaks the shelving in your closet. What do you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction.
 - b. Call my subcontractor.
 - c. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
2. Your water heater stops producing hot water. What should you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction.
 - b. Check the instructions for my water heater and try to reset if possible. If not, call my subcontractor.
 - c. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
3. Your front door deadbolt won't seem to lock no matter how hard you try. What should you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction or fix it yourself if this is a skill you learned on site.
 - b. Call my subcontractor.
 - c. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
4. The Siding pops off on your porch. What do you do?
 - a. Call Habitat right away and ask if they will come and fix it.
 - b. Fill out a Habitat Warranty Request Form and return it to the Director of Construction or fix it yourself if this is a skill you learned on site.
 - c. Call my subcontractor.
5. You have a leak under your sink that you have tried to tighten but can't stop. What should you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction.
 - b. Put a bucket under the leak or shut off the water (if severe) and then call my subcontractor.
 - c. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
6. Your vinyl flooring seams are coming undone. What should you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction.
 - b. Call my subcontractor
 - c. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
7. You have had a plumbing leak under your sink for several months and the subcontractor came and fixed it but it is happening again. The subcontractor is no longer responding to your phone calls. What do you do?
 - a. Fill out a Habitat Warranty Request Form and return it to the Director of Construction.
 - b. Fix the problem myself, or pay someone to do it - this is not a warranty issue.
 - c. Get mad about the situation and post a nasty message on Facebook.

Notes for Instructor to get across:

SAY

1. *“As a homeowner, it is your responsibility to fix things as they break. A warranty is only meant to cover materials and workmanship that is faulty.”*
2. *If you have tried to restart the water heater and the problem continues, then the subcontractor will need to investigate. It is always a good idea to refer to your manual first and see if there is a “Troubleshooting” or “Frequently Asked Questions” section. If you have persistent problems, even if they can be temporarily resolved, should go to your subcontractor.*
3. *No specific comments on this question.*
4. *No specific comments on this question.*
5. *Water damage, even from a slow leak, can lead to big trouble over time. Each water fixture in your home should have it’s own water shut off.*
6. *No specific comments on this question.*
7. *Habitat wants to know if one of our subcontractors is not fulfilling their commitment to the one year warranty. Please fill out the form and describe what has happened (there is a question that specifically addresses this).”*

Provide Feedback

Walk around and observe partner families, being sure to confirm the instructions for those who may not have understood the directions; offer praise to those students who are doing well and support to those students who are having difficulty. Some suggestions for feedback include, *“that looks great!”*, *“Excellent work!”* and so on.

Conclude Chapter

Walk through the answers with the partner families, being sure to allow time for them to make any corrections.

Ask participants if they have any questions or if they are struggling to finish the activity.

Ask partner families if they have any questions about home warranty. If there are no questions...

SAY “Congratulations! We’ve made it through all the sections, you have been a wonderful group to work with! To conclude, there is a short assessment to take, and then we will go over it. I have no doubt that you will do excellent, but you can ask any questions you would like to if you have trouble. Please take 5-10 minutes and complete the assessment now. It is on page 33.”

SAY “Once you’ve completed the assessment, please fill out our short evaluation form that I am passing out now.”

Give the evaluation form to everyone

SAY “This form will help us improve this workshop for future partner families, so your feedback is greatly appreciated.”

CHAPTER 6

Assessment



Introduce the Activity

SAY “Below is a final assessment to check your understanding on indoor maintenance. Answer each question to the best of your ability. Be sure to use your manual as a guide.”

Cleaning Supplies

1. TRUE/FALSE - You should never make your own cleaning supplies, doing so can cause problems with the surfaces you are cleaning. Always buy brand name supplies from the store.
2. I can use the following as cleaning agents:
 - a) Baking soda
 - b) Vinegar
 - c) Liquid dish soap
 - d) All of the above

Repainting

3. The first step in repainting is to put down a drop cloth.
4. TRUE/FALSE - You should leave the painter’s tape on the walls until after the paint has finished drying.

Appliance and Mechanical Systems Maintenance

5. Failure to clean your dryer vent could cause a fire.
6. TRUE/FALSE - All of your appliances and mechanical systems should be regularly maintained, using the guidelines set out in this manual.

Achieving and Maintaining Energy Efficiency

7. Because your new home is incredibly airtight, you should remember that ventilation is incredibly important. Don’t forget to occasionally open a window to help with this!
8. When replacing an energy star appliance, what type of appliance should you purchase?
The same energy efficiency quality.

Home Warranty

9. If you have a problem with work that was done by a subcontractor, who should you contact?
Habitat Director of Construction.
10. TRUE/FALSE - Your home warranty covers everything that could possibly go wrong within your home, including events where you are at fault.

Conclude Chapter

SAY *“Let’s go over the answers to the assessment, please look over your responses and make sure you have everything correct in your guide.”*

*Note: At this point, take a moment to read through the answers of the final assessment.

Ask the partner families if there are any questions about anything that was covered today at all.

SAY *“Thank you so much for coming today, it has been a lot of fun to work with you, and please let us know in the future if you have any questions for us at all!”*

SAY *“Please also turn in your evaluation form as you leave today. Thanks again!”*