



Prepare with Pedro!

EARTHQUAKES

Dear Educator:

Thank you again for inviting us to share our *Prepare with Pedro* emergency preparedness program with your students. To help build on our presentation we have developed these K–2 lesson plans, with separate activity sheets for two age levels.

Pedro will guide you, your students and their households through engaging, standards-based activities that teach science and health concepts, while building language arts and critical-thinking skills. The lessons follow a Before–During–After approach to navigating earthquakes that will empower students to be preparedness advocates at home.

We hope that you will use these resources to further enrich your students' learning experience and help them prepare for emergencies.

Sincerely,

Your Friends at the
American Red Cross

Activity 1

All Shook Up!

Objectives

- Create awareness among students and households about earthquakes, focusing on how to prepare for them to help keep everyone in the household safe
- Engage students in critical-thinking activities to help build their language and literacy skills
- Encourage students to become preparedness advocates for their households
- Promote parent or caregiver involvement through at-home activities

To teach students about earthquakes, these activities follow a Before–During–After approach. That is, students learn how to prepare for earthquakes, how to stay safe during an earthquake and what to do once the earthquake has subsided. Activity 1 focuses on “Before,” emphasizing important steps households can take in preparation for an earthquake.

Grades K–1

Begin by asking students what they already know about earthquakes. Then review the definition of **earthquake**.

Say: An earthquake is when the rock under the earth's surface moves and makes the earth shake. Earthquakes can happen with no warning anywhere in the world. There are small

earthquakes, where things shake just a little, or big earthquakes, where things shake A LOT! And sometimes, after the earthquake is over, smaller earthquakes called **aftershocks** can occur.

Ask students: Have you ever experienced an earthquake? What was it like? What did you do during it? How can you prepare for an earthquake?

After the discussion, **say:** Now we are going to learn about ways your household can prepare for an earthquake to help everyone stay safe!

Distribute copies of the activity sheet and explain that students are going to help Pedro the Penguin and his friends Jasmine and Brandon prepare for an earthquake. Read the directions and explain that the pictures show different activities, some of which are safe ways to be prepared and take action for an earthquake, and some that are not. We will figure out which is which!



Direct students' attention to **Image 1**.

Ask: What is Pedro doing in this picture? **Say:** He is taking cover under a desk. Sometimes during an earthquake, things like books or lamps shake and fall down. It's important to have safe places you can go that are

away from anything that could fall and hurt you.

Ask: Why do you think Jasmine has a clipboard?

Say: They are practicing to prepare for an earthquake.

It looks like that spot under her desk would help keep them safe during an earthquake! Circle this picture.



Direct students' attention to **Image 2**.

Say: Brandon and Pedro are wondering if being by the window would be a safe place to go during an earthquake. **Ask:**

What do you think? **Say:** If a window shakes hard enough during an earthquake, the glass could break, or a tree might crash through the window. Brandon and Pedro should pick a safer spot away from any windows. Cross out this picture.



Direct students' attention to **Image 3**.

Ask: What is Jasmine's mom doing in this picture? **Say:** It looks like she's making sure their TV is attached tightly to the wall. **Ask:** Why do you think she's doing that? **Say:** TVs can be really heavy, so securing it to the wall will help make sure it doesn't fall and break or hurt anyone during an earthquake. **Ask:** Can you think of anything else that hangs on the wall that a grown-up could make sure is attached strongly? (pictures, mirrors, clocks) **Say:** Great job! Circle this picture to show it is safe.



Direct students' attention to **Image 4**.

Say: Brandon and his dad are gathering supplies like water, a first aid kit, flashlight and canned food in case there is an earthquake. **Ask:** Do you think this is a good idea? Why?

Say: It's a great idea to put important items in one place

that you might need in an emergency. Sometimes the power or electricity goes out after an earthquake or you may not be able to get to the store right away. By putting together supplies ahead of time, you will have things to eat and drink and a first aid kit in case anyone is injured after an earthquake is over. Circle this picture to show it is safe. **Ask:** What are some snacks or supplies you would want to have with you if you had to stay in one place for a little while?



Direct students' attention to **Image 5**.

Say: Jasmine and Brandon's household has learned that earthquakes happen in their area. Their home has many trees and powerlines nearby. Is this a safe place for them to drop, cover and hold on during an earthquake? **Say:** No, it's not! Cross out this picture.



Direct students' attention to **Image 6**.

Ask: What do you see on top of the shelves in Jasmine and Brandon's living room? **Say:** I see some heavy things like a pitcher, an empty vase, a big bowl and a glass vase with flowers. **Ask:** Do you think this is a good spot for these items, in case there is an earthquake? **Say:** It doesn't seem safe to have heavy or breakable items—like glass—high up in your house. They could fall and break or hurt someone. Where should they be placed instead? Cross out this picture.

To wrap up the activity, encourage students to color in the "safe" pictures, adding details to the illustrations if they'd like. Conclude by reading the directions at the bottom of the activity sheet, which encourages households to look at a website to learn about the possibility of an earthquake in their area.

Emphasize to the children that they should not do these safety protection actions on their own. **Say:** Remember, you should share this information with the grown-ups in your home and help them prepare. Your grown-ups will be in charge of making the plan. You're the helper. Do not do this on your own.

Grades 1-2

For **Part 1**, complete the same exercises as in the Grades K-1 activity.

For **Part 2**, read the directions and have students complete the matching activity alone or in pairs. Depending on your students' reading levels, you may wish to read through each definition and term aloud, one at a time, and have students draw lines to connect the answers. Review the answers as a class.

Answers: 1. earthquake – C; 2. secure items – A; 3. supplies – D; 4. safe place – B



Activity 2

Drop, Cover and Hold On!

Objectives

- Create awareness among students and households about earthquakes, focusing on how to stay safe during them
- Engage students in critical-thinking activities to help build their language and literacy skills
- Encourage students to become preparedness advocates for their households

Grades K-1

This activity focuses on the “during” phase of earthquake safety, reinforcing the three key steps to take: Drop, Cover and Hold On! Students will learn that they can perform these steps wherever they are to help them stay safe during an earthquake.

After you familiarize yourself with the steps, begin the activity by sharing them with your students:

- **DROP:** Safely drop onto your hands and knees, so you won't fall down from the shaking. (People in wheelchairs or motorized devices, should lock the wheels in place.) Drop as quickly as you can, since it is not safe to run or walk around during an earthquake.
- **COVER:** Quickly move to a safe place away from anything that could fall and hurt you. If you are inside, this could be under a table or desk, away from windows. If you are outside, find a clear spot away from trees and buildings.

Cover your head and neck with one hand or something like a book or blanket. (If you're in bed, you can stay there! Cover your head and upper body with your pillow.)

- **HOLD ON:** With the hand you are not using to cover yourself, hold onto whatever you are sheltered under so it doesn't shake away from you and you don't shake away from it. If you aren't under anything, hold onto your head and neck with both arms and hands. Keep holding on and stay where you are until a grown-up says it's safe to come out.

Part 1: Say: Now let's share with Pedro what you've learned about how to stay safe if an earthquake happens. **Ask:** What do you remember about the three steps? As a hint, the first one is “Drop.”

Prompt students to name each step and describe it in detail. (Let students demonstrate each step if possible.) Be sure to reinforce the final step: Stay where you are in your safe place, holding on, until a grown-up says it's safe to move.

Distribute the activity sheets. Read the directions and have student volunteers read the words in the word bank and the captions under each image or read them aloud to the class.

Say: Pedro needs your help remembering the steps to take to stay safe during an earthquake. Write the words from the box on the blank lines under the pictures they go with.

When students are finished, review the answers as a class.

Answers: 1. DROP - Do this so you won't fall down;
2. COVER - Do this to protect yourself from falling objects;
3. HOLD ON - Do this to stay safe if the shaking makes things move around.

Part 2: Next, **ask:** Where are some safe places at school where we could drop, cover and hold on? How about at your home? What about at the park or on the playground? Lead a class brainstorm, considering each safe place idea in detail, including the “why” behind the selections. Then invite students to use the back of the sheet to draw a picture of themselves in a “drop, cover and hold on” position at home. Have students share their drawings with the group or with a partner.

Conclude by reading the message at the bottom of the activity sheet, which encourages households to practice the Drop, Cover and Hold On safety steps together.

Emphasize to students that they should ask a grown-up about any safety questions. **Say:** Remember, you should share this information with the grown-ups in your home and help them prepare. Ask your grown-ups any safety questions you have.

Grades 1-2

For **Part 1**, complete the same exercises as in the Grades K-1 activity. **Ask:** Where are some safe places you could “drop, cover and hold on” at home?

For **Part 2**, direct students' attention to the scrambled sentence at the bottom of the page. **Say:** Now that Pedro

dropped, covered and is holding on, he needs your help to know when he can move from his safe place. This sentence will give him the answer, but some words are missing!

Read the sentence aloud, saying “Blank” where the blank spaces are. Have students (on their own or in pairs) unscramble the words below the sentence and write them on the answer lines. Review the answer as a class, **saying**, you should stay in your safe place until a grown-up says it’s okay to leave because there could be things that have fallen that could hurt you. Great work today!

Answer: When a grown-up says it is safe.

Emphasize to students that they should ask a grown-up about any safety questions. **Say:** Remember, you should share this information with the grown-ups in your home and help them prepare. Ask your grown-ups any safety questions you have.

Take-Home Activity

Be Earthquake Prepared!

Objectives

- Empower students to teach their households about actions to take before, during and after an earthquake
- Build critical thinking, problem-solving and planning skills
- Strengthen vocabulary, reading and writing skills
- Promote parent/caregiver involvement through at-home activities

All Grades

This activity reviews the “Before” and “During” steps of earthquake safety, as well as introducing the “After,”

that is, what students and their households should do once the earthquake has subsided. Review the definition of “aftershock” and reinforce that aftershocks are mini-earthquakes that can happen after an earthquake, sometimes even days or weeks later, so it’s important to be ready to drop, cover and hold on even after the initial earthquake has stopped.

Say: For this activity, you will get to teach your household all about the earthquake safety tips you have learned, so your grown-ups can lead you in creating an earthquake safety plan for your household. Remember, your grown-ups will be in charge of making the plan. You’re the helper.

As a class, review Activities 1 and 2, discussing all the tips the students have learned. Have students take home the activity sheets so they can refer to them when sharing what they have learned with their households. Distribute copies of the take-home activity and tell students there’s information for grown-ups to read on this sheet, and together they will make a plan to be prepared for earthquakes, stay safe during an earthquake and know what to do after the earthquake is over. They will make an earthquake safety poster with their households to help them prepare.

Resources

- American Red Cross:
[redcross.org/earthquake](https://www.redcross.org/earthquake)
- Ready.gov:
[ready.gov/earthquake](https://www.ready.gov/earthquake)
- Centers for Disease Control and Prevention:
[cdc.gov/disasters/earthquakes/index.html](https://www.cdc.gov/disasters/earthquakes/index.html)

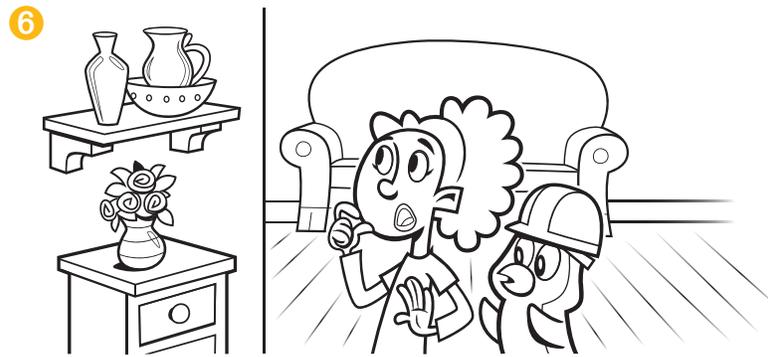
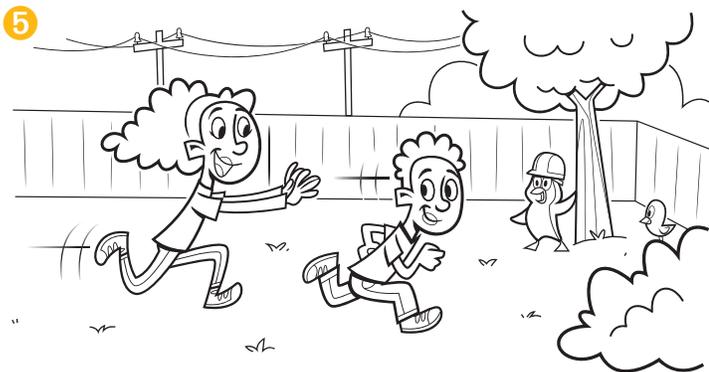
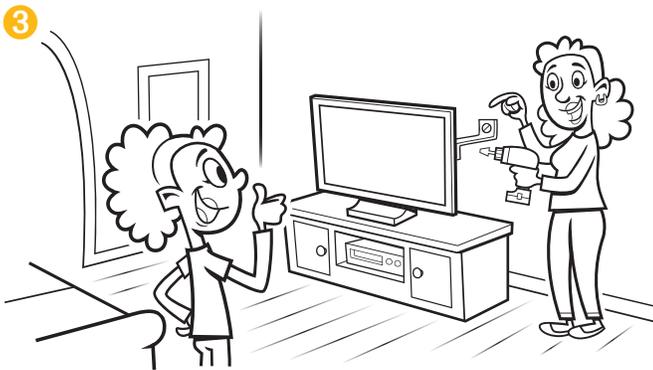
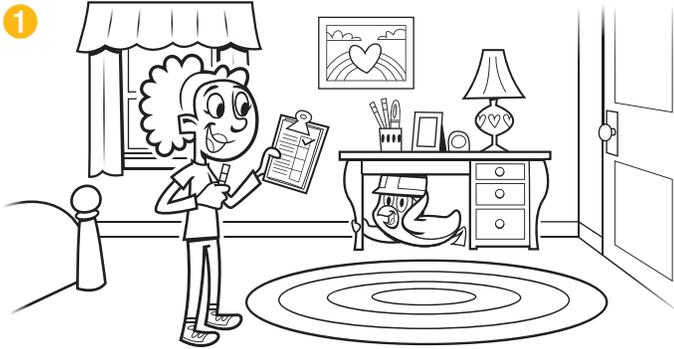


Prepare with Pedro!

Earthquakes

All Shook Up!

Help Pedro and his friends Jasmine and Brandon prepare and practice for an earthquake! Circle the pictures that show what will help them stay safe. Cross out the pictures that are not ways to be prepared or take action for an earthquake. When done, color the safe pictures.



A MESSAGE TO GROWN-UPS: Be prepared for an earthquake! With your child, look at regional maps, such as the ones on the American Geosciences Institute website (americangeosciences.org/critical-issues/maps/national-seismic-hazard-map), to discuss the possibility of an earthquake in your area. Encourage children to talk through any fears or anxieties they may have and reassure them that, as a household, you can be prepared to stay safe.



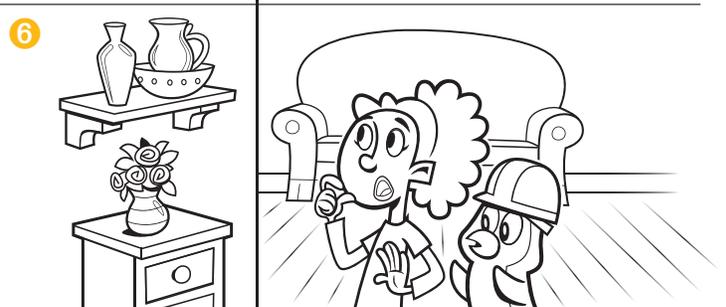
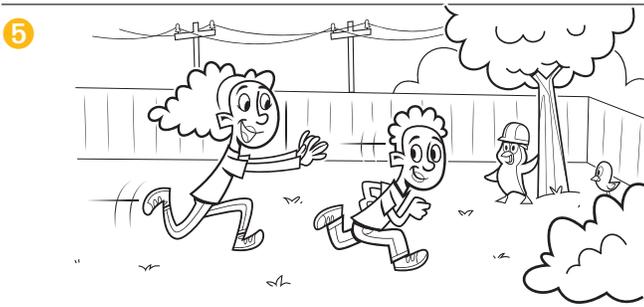
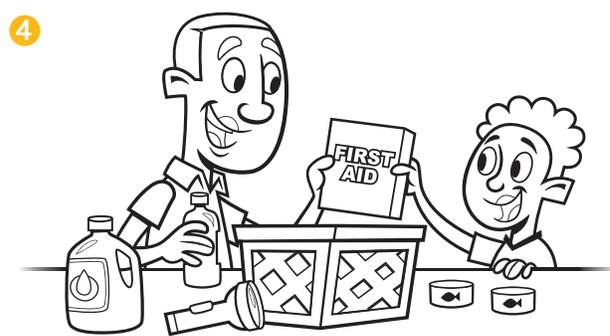
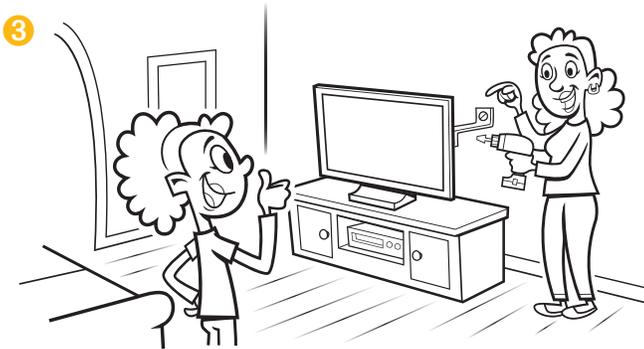
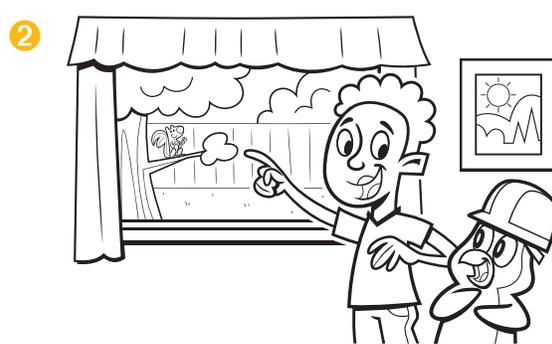
Answers: 1. safe; 2. not safe; 3. safe; 4. safe; 5. not safe; 6. not safe.



Prepare with Pedro! Earthquakes

All Shook Up!

Part 1: Help Pedro and his friends Jasmine and Brandon prepare and practice for an earthquake! Circle the pictures that show what will help them stay safe. Cross out the pictures that are not ways to be prepared or take action for an earthquake. When done, color the safe pictures.



Part 2: Now, match each earthquake safety word or phrase to its definition. Write the letter on the line.

- | | |
|-----------------------|---|
| 1. earthquake _____ | a. to attach heavy things to the wall or put them away |
| 2. secure items _____ | b. where you go so things will not fall on you and hurt you |
| 3. supplies _____ | c. a natural event that happens when the rock under the earth moves and makes the earth shake |
| 4. safe place _____ | d. water, food, a first aid kit, flashlights and more |

A MESSAGE TO GROWN-UPS: Be prepared for an earthquake! With your child, look at regional maps, such as the ones on the American Geosciences Institute website (americangeosciences.org/critical-issues/maps/national-seismic-hazard-map), to discuss the possibility of an earthquake in your area. Encourage children to talk through any fears or anxieties they may have and reassure them that, as a household, you can be prepared to stay safe.



Prepare with Pedro! Earthquakes

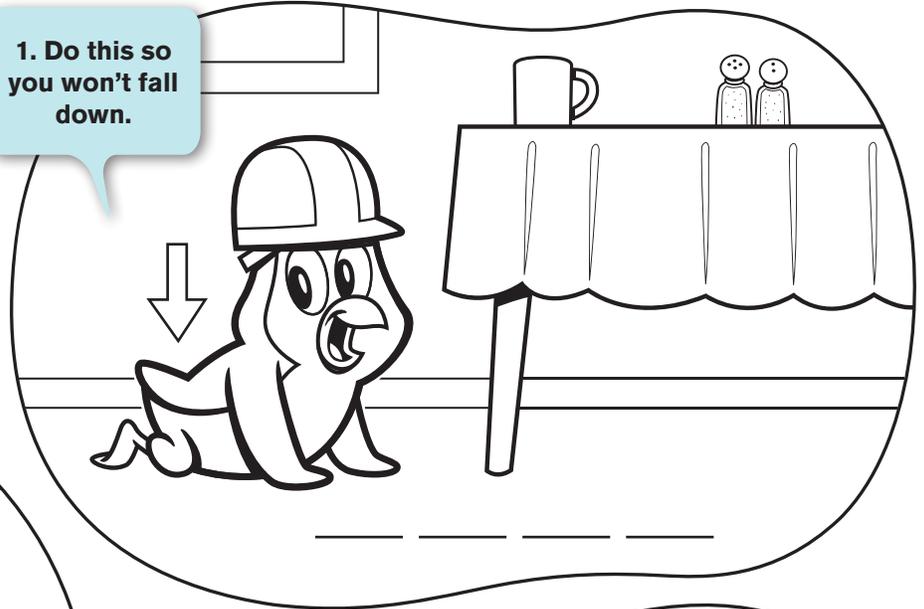
Drop, Cover and Hold On!

Part 1: Help Pedro and his friends stay safe during an earthquake in three steps! Look at the pictures. Label them. Write the word (or words) from the “word bank” on the lines under the correct picture.

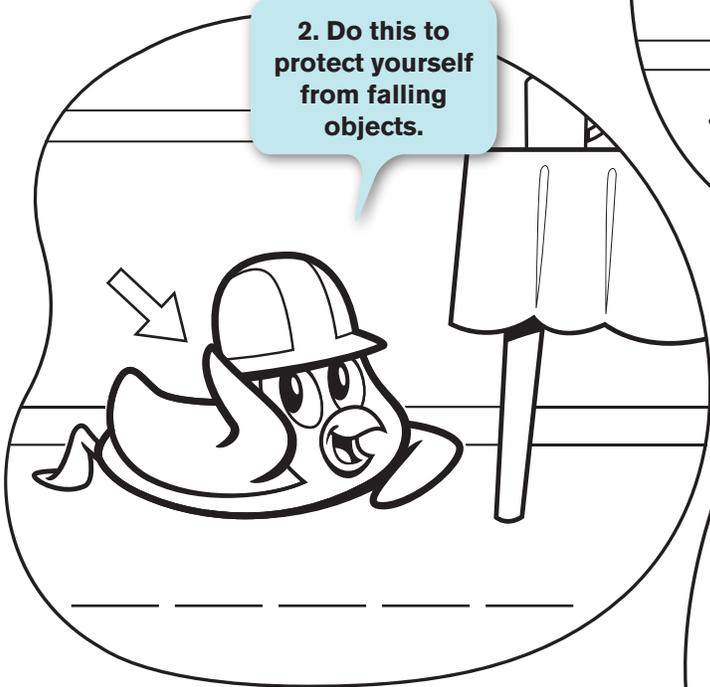
WORD BANK

DROP
COVER
HOLD ON

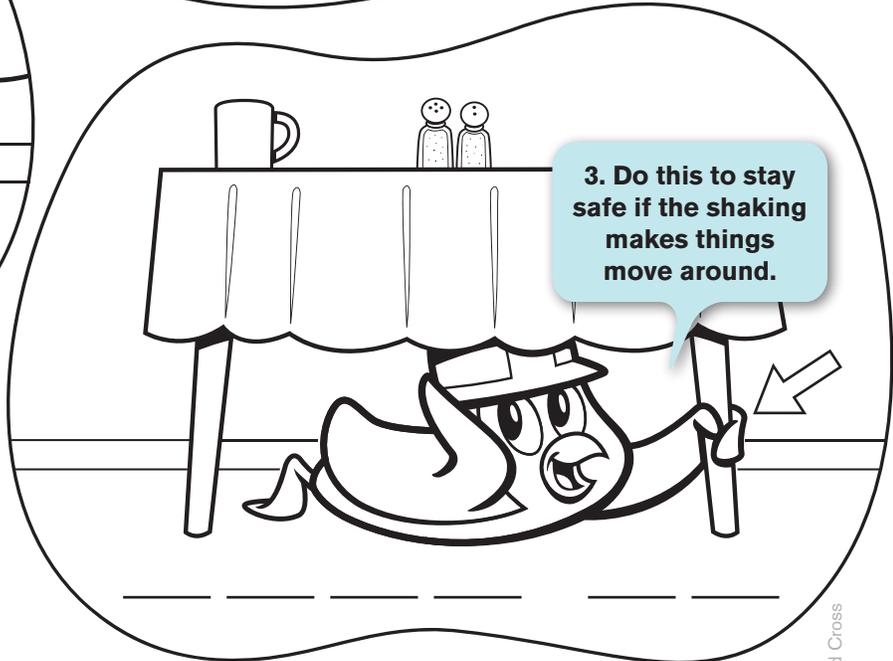
1. Do this so you won't fall down.



2. Do this to protect yourself from falling objects.



3. Do this to stay safe if the shaking makes things move around.



Part 2: On the back of this paper, draw yourself in a safe space at home. Show the three steps in your picture: Drop, Cover and Hold On!

A MESSAGE TO GROWN-UPS: Your child has learned how to stay safe during an earthquake. Ask them to share the **Drop, Cover and Hold On!** steps of earthquake safety and, as a household, practice these steps in a safe space in each room. You can practice outside as well!



Prepare with Pedro! Earthquakes

Drop, Cover and Hold On!

Part 1: Help Pedro and his friends stay safe during an earthquake in three steps! Look at the pictures. Label them. Write the word (or words) from the “word bank” on the lines under the correct picture.

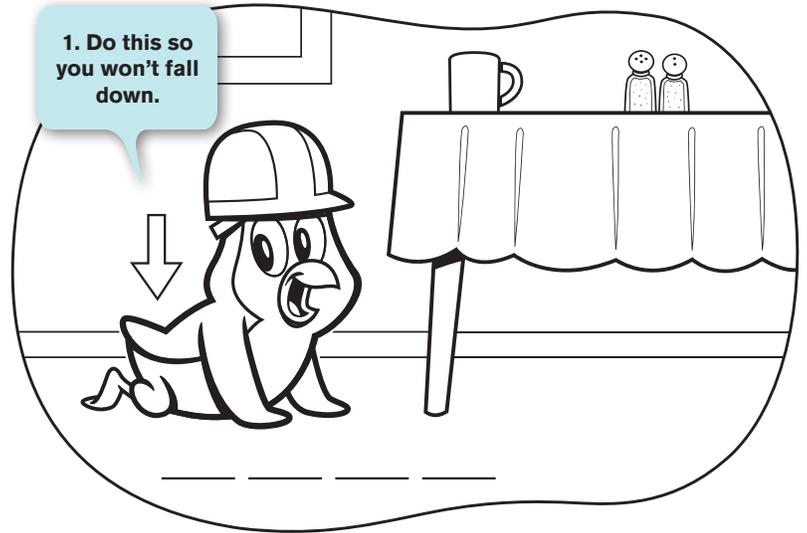
WORD BANK

DROP

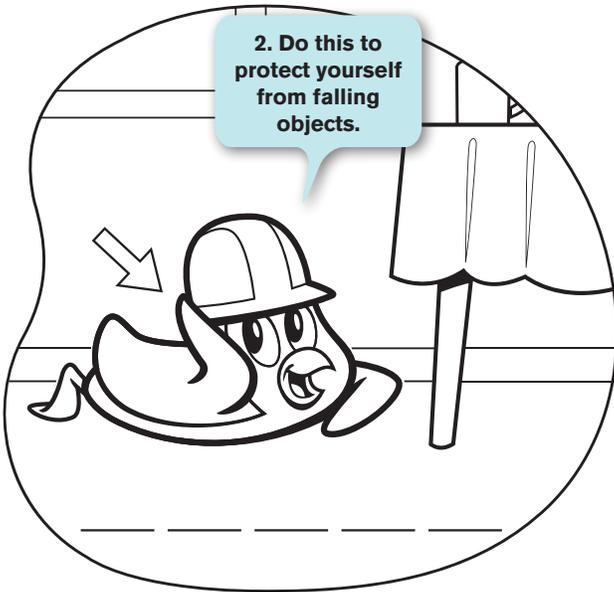
COVER

HOLD ON

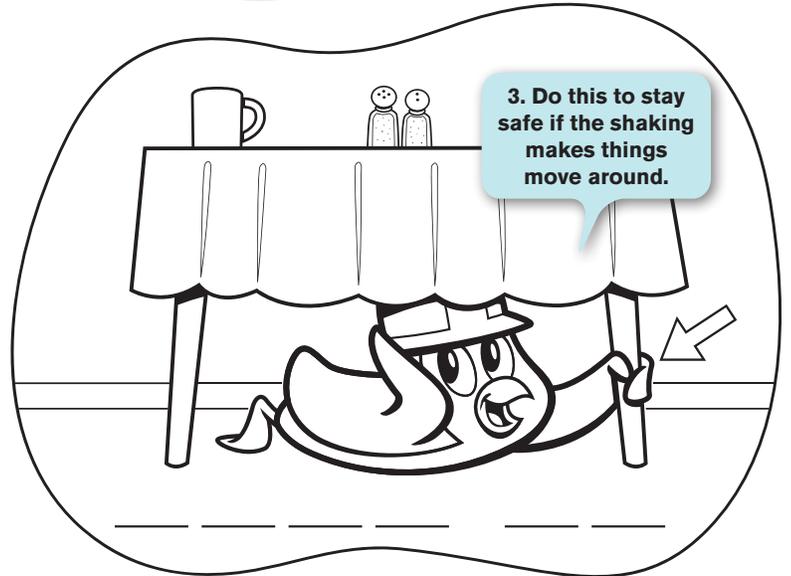
1. Do this so you won't fall down.



2. Do this to protect yourself from falling objects.



3. Do this to stay safe if the shaking makes things move around.



Part 2: When will Pedro know it's okay to leave his safe space? Unscramble and write the words on the lines to finish the sentence.

When a _____ it is _____
 n u p r o w g s s y a f e a s

A MESSAGE TO GROWN-UPS: Your child has learned how to stay safe during an earthquake. Ask them to share the **Drop, Cover and Hold On!** steps of earthquake safety and, as a household, practice these steps in a safe space in each room. You can practice outside as well!



Prepare with Pedro! Earthquakes

A Message to Grown-ups



Your child has been learning about earthquakes, including how to prepare for them and stay safe when an earthquake happens. Ask your child to share what they've learned.

Review the guidelines below with your child and then develop a plan to help keep all members of your household as safe as possible during and after an earthquake. On a separate piece of paper or poster board, create an "Earthquake Safety" plan. List supplies your household needs to have on hand, safety tips and emergency phone numbers. Encourage your child to add illustrations. Reassure your child that if you do experience an earthquake, you will put the plan into action so they don't feel it is their job. It's also important to address any fears or anxieties your children may experience over a possible earthquake. Talk through their feelings and consider practicing coping skills together such as deep breathing.

Be "Earthquake Prepared"

- Tour your home with your child and create an inventory of loose or unstable items and unsecured heavy furniture or appliances. Then secure or move items as your child "supervises" and checks them off the list!
- Keep a flashlight and a pair of sturdy shoes by each person's bed.
- Consider installing locks on your cabinets, especially in places where you keep heavy or fragile items, as well as installing locks on closet doors.
- Identify places where you could seek cover.
- Create a "go bag" with a flashlight, change of clothes, bottled water and a game or book for each member of the household.

Stay "Earthquake Safe"

- When an earthquake happens, drop, cover and hold on!
- If you are inside, stay inside.
- If you are outdoors, find a clear spot and drop to the ground. Try to get as far away from buildings, power lines, trees and streetlights as possible.
- If you are in bed, stay there, roll over on your stomach and cover your head and upper body with a pillow.
- If you're in your car during an earthquake, pull over to a clear location and stop, keeping your seatbelts on.

Aftershock Awareness

- Stay inside until the shaking stops and you are sure it is safe to exit.
- Aftershocks can occur minutes, days, weeks, and even months following an earthquake. Be ready to drop, cover and hold on anytime there's an aftershock.
- Open closet and cabinet doors carefully as contents may have shifted.
- Secure any heavy furniture or wall hangings that came loose or fell.
- Together, when it is safe, review your "earthquake prepared" checklist and note if any items need re-securing or moving.

Learn More!

For more information, check out these resources:

- American Red Cross: [redcross.org/earthquake](https://www.redcross.org/earthquake)
- Ready.gov: [ready.gov/earthquake](https://www.ready.gov/earthquake)
- Centers for Disease Control and Prevention: [cdc.gov/disasters/earthquakes/index.html](https://www.cdc.gov/disasters/earthquakes/index.html)

