

Name _____



Hands-On Activity

Explore online.

Engineer It • Model Thunder

Materials



What sound does thunder make?

Step 1

The picture could show a thunderstorm, with or without lightning. Sample question: What causes thunder?

Think of a question you have about thunder. Write or draw a picture to show your question.

Step 2



Form a C-shape with your hand, and grasp the paper bag tightly at the top. Blow it up like a balloon.

Lesson 3 • Engineer It • What Are Kinds of Severe Weather? 211

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Hands-On Activity Small Groups 15–20 min Engineer It • Model Thunder

3D Learning Objective

SEP Obtaining, Evaluating, and Communicating Information

Provide texts and Internet sites where children can learn more about weather patterns that include thunder. **Ask:** What kinds of patterns can you find in weather that include thunder? **Thunder happens when there are clouds in the sky. Thunder can happen before, during, or after it rains.**

CCC Cause and Effect

Children use a model to mimic the sound of thunder.

Suggested Materials Use small paper lunch bags that will burst easily.

Preparation

You may also choose to complete this activity as a whole group. Discuss as a class questions children have about thunder. For children that have difficulty, have extra bags on hand so they can try it again.

Activity

STEP 1 Invite children to talk about what thunder sounds like. Remind them that questions begin with words such as *who*, *what*, *why*, *when*, and *where*.

STEP 2 Suggest that children take a deep breath and then hold the top of the bag over their mouths and exhale into the bag. Have them squeeze the top of the bag closed after they blow into it. Have children hit the bag on the bottom hard, as if they were clapping hands. Children may need to repeat this step several times to get the bag tight and full of air in order for it to make a noise when it pops.

Hands-On Activity, continued

STEP 3 Share with children that hitting the bag is similar to when lightning strikes and makes thunder.

CCC Cause and Effect

Guide children to explore their actions. **Ask: What happened because you hit the bag?** *The bag burst.* **Ask: What happened to the air in the bag because it burst?** *The air was released.*

Claims, Evidence, and Reasoning

Children should make a claim that they made a sound similar to the sound of thunder. They should cite evidence that the bag burst and made a loud popping sound when they hit it. **Ask: What questions do you still have about thunder?** Suggest children research to find the answers to their questions. Allow time for them to share the information with the class.

Scoring Rubric for Hands-On Activity	
3	States a claim supported with evidence that bursting a paper bag makes a sound similar to thunder
2	States a claim somewhat supported with evidence that bursting a paper bag makes a sound similar to thunder
1	States a claim that is not supported by evidence
0	Does not state a claim and does not provide evidence

Step 3

Holding the bag tightly closed, use your other hand to smash the bag and make it pop. Describe the cause of the noise from the smashed bag. Tell how the noise is like thunder.



Make a claim.

Sample answer: I can make a sound like thunder.

What is your evidence?

Drawings may vary but could show a picture of a child popping a bag.

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