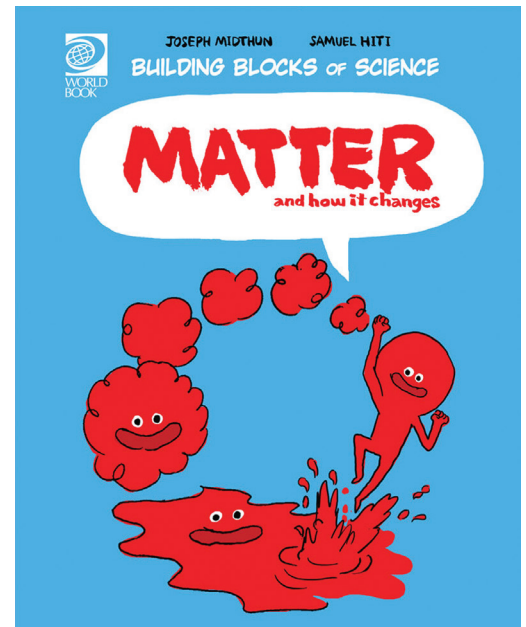


BUILDING BLOCKS OF SCIENCE PHYSICAL SCIENCE LESSON PLAN & GUIDED DISCUSSION

Each of the 10 *Building Blocks of Science* volumes features a whimsical character which guides the reader through a physical science topic. This series is perfect for students across a spectrum of reading comprehension and science mastery levels.



General Information	
Title:	Make it Rain
Materials:	<ul style="list-style-type: none"> • Large metal or plastic bowl (like a mixing bowl or salad bowl) • Dry ceramic cup (like a tea cup) • Clear plastic wrap • Water • Dice or marbles (anything that will act like a small weight) • Tape
Objective:	Students will demonstrate mastery of the core concepts of this lesson through a group discussion. You will then work together as a class to create their very own water cycle, using simple materials.

Lesson	
Group discussion questions:	<p>Make sure your students have grasped the major concepts of this lesson through an informal group discussion. This is an opportunity for you to highlight the most important points in the book and to clarify any uncertainties your students may have. Use the questions below as a guideline but feel free to generate your own!</p> <ul style="list-style-type: none"> • What are the differences between a physical change and a chemical change? Can you give real-life examples of each? • Tell me about suspensions and solutions. • In which state of matter are particles farthest apart? Closest together? • Is it possible for two liquids to have the same volume but different mass? Tell me how.
Procedure	<p>Place the bowl on a table and fill it until it about a quarter of the way full.</p> <p>Place the cup into the bowl carefully. You may need to add some weights to the cup so that it doesn't tip over.</p> <p>Cover the top of the bowl tightly with the plastic wrap and tape the edges down so the seal is tight. Make sure the plastic does not touch the cup.</p> <p>Watch the bowl to see what happens. Ask students what they think will happen. Why?</p> <p>Point out to students that the "mist" that forms on the plastic wrap will change into larger drops of water that will begin to drip.</p> <p>When this happens, continue watching for a few minutes, then begin to peel back the plastic wrap. Is the cup still empty?</p> <p>Ask students to provide suggestions for what may have happened.</p> <p>Ultimately, make sure they understand that water from the "ocean" of water in the bowl evaporated. As it condensed, it formed misty "clouds" on the plastic wrap. When the clouds became saturated it "rained" into the cup!</p>

<p>Vocabulary for the Word Wall:</p>	<p>As a class, decide on a few vocabulary words that were particularly relevant to this activity. For example,</p> <ul style="list-style-type: none"> • solution • nutrient • chemical change • physical change <p>Pass out a few index cards and ask students to write the vocabulary word on the front of the card and its definition on the back. Students can refer to the glossary on p. 30 as a reference. There are probably not enough words for everyone in the class to make a card so just be mindful that each kid gets a turn at some point during this unit.</p> <p>Post the cards on a “WORD WALL” bulletin board in your classroom.</p>
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Common Core Standards highlighted in this lesson

<p>Standards:</p>	<p>ELACC4RI3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.</p> <p>ELACC4RI4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.</p> <p>ELACC4RI7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.</p> <p>ELACC4SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own.</p>
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