

Practicing Groupwork Skills to Construct Scientific Explanations

QUESTION, CLAIM, EVIDENCE, AND REASONING PAPER STRIPS AND LABELS

## **Question, Claim, Evidence, and Reasoning Paper Strips**

Print, copy, and cut the question, claim, evidence, and reasoning paper strips, one copy per group.				
Question 1: Do plants need the sun to grow?				
<ul> <li>Plants cannot grow without sun.</li> </ul>				
<ul> <li>We planted and watered 10 sunflower seeds. We put 5 seeds in a dark closet and 5 seeds next to our classroom window. All the seeds sprouted. The seeds in the dark closet stopped growing after a couple of days, and the other seeds kept growing.</li> </ul>				
• There was only one thing different between the two groups of plants: Some had light and some did not. The ones in the dark could not keep growing after they sprouted because the sun is what helps plants get the energy. Without energy, plants will die.				
Question 2: Why are so many students getting hurt at recess?				
<ul> <li>Drinking milk is causing students to fall and hurt themselves.</li> </ul>				
<ul> <li>We asked all students who had fallen and gotten hurt whether they had drunk milk in the last day.</li> <li>We found that 9 out of 10 kids had drunk milk the day before they were hurt.</li> </ul>				
<ul> <li>Maybe milk has something bad in it that makes students clumsy.</li> </ul>				
Question 3: On planet Earth, do heavy objects fall faster than lighter objects?				
• On planet Earth, heavy objects do not fall faster than lighter objects.				
• A 10-pound ball and 1-pound ball were dropped from a high building and landed at the bottom at the same time.				
<ul> <li>Since the balls have very different weights but took the same amount of time to fall, I know that weight does not affect how quickly something falls.</li> </ul>				



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Question 4: Why is the average temperature of Earth's atmosphere increasing?
More carbon dioxide in the Earth's atmosphere is causing the temperature of the atmosphere to rise.
Over the last 50 years, the global temperature has risen as carbon dioxide levels have gone up. Both have risen faster than ever before in the history of Earth.
Carbon dioxide is a "heat trapping" gas. The more carbon dioxide, the hotter the planet. This is called the "greenhouse effect."

## **Question, Claim, Evidence, and Reasoning Labels**

Copy one per group. Cut apart the vertical strips of labels, and put them in the envelope with the question paper strips.

QUESTION	QUESTION	QUESTION	QUESTION
CLAIM	CLAIM	CLAIM	CLAIM
EVIDENCE	EVIDENCE	EVIDENCE	EVIDENCE
REASONING	REASONING	REASONING	REASONING