The Heat is On: Cause and Effect and Climate
Student Activity Guide

Name: _____   Date: _____

Introduction

Long-time residents of the fictitious community of Solutionville have noticed a troubling trend in their small town that they want to get to the bottom of. For this activity, imagine you are a citizen of Solutionville who has volunteered to serve on the Troubling Trend Task Force. As a member of this task force, you will explore the following questions:

- **How might we determine if one thing causes another?**
- **What's causing temperatures in Solutionville and around the globe to increase?**

Your Challenge *(read all instructions before you start!)*:

1. On your own, **read** PAGE A1 of the *Solutionville Inquirer* newspaper article "Things Are Heating Up in Solutionville."

2. **Draw** a fishbone diagram with your own hypotheses about what could be the cause of the temperature rise in Solutionville and around the globe.

3. **Choose one** of the hypothesis (#1, 2, or 3) from pages A2-A4 of the article to read individually (make sure each person in your group reads a different hypothesis). **Take turns explaining** the hypothesis you read to your group, and answer any questions they have.

4. **Decide** as a group if you think any of the arguments presented in the three different hypotheses are valid. Write down your thoughts about the following questions:

- *Do you think any of these residents have identified the correct cause, or at least a plausible one?*
- *What criteria did you use to make your decision?*
- *What is 'evidence,' and what makes good evidence?*
- *Do you think you need any other information to make your decision?*
- *If things seem to vary or change in a similar way, does that mean one causes the other? Why or why not?*

Did You Know?

Although Solutionville is a fictitious community, the issue of increasing temperatures you will read about is a REAL phenomenon that has been recorded around the globe.

Flips!de SCIENCE

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Notes, questions, and doodles: