



SAMPLE MATERIAL

## Lesson Plan: Urban Legends Experiment and *Mythbusters* Extra Credit

Clarke N. Johnsen Junior High School, Utah

**Topic:** Encouraging Girls in Math and Science

**Practice:** Sparking Curiosity

Using this lesson plan, students working in small groups select three myths they would like to explore and develop experiments to prove or disprove each myth. This lesson plan aims to promote scientific exploration including: making hypotheses, designing a research plan, identifying necessary materials and measurement tools, and creating step-by-step instructions for the study methodology.

Following this lab lesson, for extra credit, individual students watch one of the episodes of the Discovery Channel show *Mythbusters* (also available online at <http://dsc.discovery.com/fansites/mythbusters/mythbusters.html>); each episode typically tests two or three common myths. For each myth, students list how the two main explorers in the show, Adam and Jamie, follow the six steps of the scientific method to find out if the myth is busted or supported by the evidence.

NAMES: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

### DESIGNING EXPERIMENTS: SUPERSTITIONS/URBAN LEGENDS

Choose **THREE** of the following superstitions and/or urban legends and, as a group, decide whether or not you believe it (this is your hypothesis) and design an experiment to prove or disprove each one. Remember to include detailed step-by-step instructions, a list of supplies needed, and a list of precautions. Your experiment cannot endanger any living thing!

#### SUPERSTITIONS:

The following things are considered **UNLUCKY**: the number 13, a black cat crossing your path, walking under a ladder, and breaking a mirror (this gets you seven years of bad luck).

The following things are considered **LUCKY**: the number 7, a four-leaf clover, and a rabbit's foot.

Touching a toad will give you warts.

Full moons make people crazy.

Eating fish makes you smarter.

#### URBAN LEGENDS:

The woman who cooked herself in a tanning bed.

The woman who found spiders living in her beehive hairdo.

Tarantulas living in a household cactus.

Eating PopRocks candy and drinking a Coke will make your stomach explode.

Throwing a penny off a skyscraper can kill someone standing on the ground.

#### EXPERIMENT NUMBER 1:

URBAN LEGEND OR SUPERSTITION BEING TESTED: \_\_\_\_\_

HYPOTHESIS: \_\_\_\_\_

SUPPLIES: \_\_\_\_\_

PRECAUTIONS: \_\_\_\_\_

#### STEP-BY-STEP INSTRUCTIONS:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

**EXPERIMENT NUMBER 2:**

URBAN LEGEND OR SUPERSTITION BEING TESTED: \_\_\_\_\_

HYPOTHESIS: \_\_\_\_\_

SUPPLIES: \_\_\_\_\_

PRECAUTIONS: \_\_\_\_\_

**STEP-BY-STEP INSTRUCTIONS:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

**EXPERIMENT NUMBER 3:**

URBAN LEGEND OR SUPERSTITION BEING TESTED: \_\_\_\_\_

HYPOTHESIS: \_\_\_\_\_

SUPPLIES: \_\_\_\_\_

PRECAUTIONS: \_\_\_\_\_

**STEP-BY-STEP INSTRUCTIONS:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

NAME: \_\_\_\_\_ HOUR: \_\_\_\_\_

### “MYTHBUSTERS” EXTRA CREDIT

Watch the Discovery Channel show “Mythbusters”. Each show typically tests two or three urban legends or myths. For each myth tested, list how Jamie and Adam followed the six steps of the scientific method.

PROBLEM:

INFORMATION:

HYPOTHESIS:

EXPERIMENT:

Supplies:

Precautions:

Steps:

DATA:

CONCLUSIONS: (“Busted” or “Confirmed”, etc.)

What did you think about the way they tested the myth? Would you have done anything differently?