CHEMYSTERIES

OUTREACH PRE-VISIT PAGE (GRADES 2-5) 60 minutes

Arizona Science Center will be arriving no later than 15 minutes before the start of your program(s). **Chemysteries** is intended to be a hands-on introductory chemistry program that covers:

- States of matter
- Investigating scientific methods including predictions and observations
- Physical and chemical reactions

PROGRAM NEEDS

- **The Arizona Science Center's instructor is a guest in your classroom. Class teacher/instructor must remain in room for duration of program for liability reasons. We cannot be responsible for your students.**
- One instructor table at front of room
- Room with sink or water readily available
- Limited to 30 participants who will break into 10 groups
- Desk or table space for groups of students
- Student need to supply his/her own pencil
- An available whiteboard or chalkboard is preferred
- If multiple programs are scheduled at your location, it is ideal that the instructor be set up in one room and participants be brought in, otherwise allow 15 minutes between programs

SCIENCE STANDARDS

Grade 2:
S1C1PO1: Formulate relevant questions about the properties of objects, organisms, and events in the environment.
S1C1PO2: Predict the results of an investigation (e.g., in animal life cycles, phases of matter, the water cycle).
S5C1PO1: Describe objects in terms of measurable properties (e.g., length, volume, weight, temperature) using scientific tools.
S5C1PO2: Classify materials as solids, liquids, or gases.
S5C1PO3: Demonstrate that water can exist as a gas, liquid, and solid.
S5C1PO4: Demonstrate that solids have a definite shape and that liquid and gases take the shape of their containers.

Grade 3:
S1C1PO1: Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge.
S1C1PO2: Predict the results of an investigation based on observed patterns, not random guessing.

Grade 4:
S1C1PO2: Formulate a relevant question through observations that can be tested by an investigation.
S1C1PO3: Formulate predictions in the realm of science based on observed cause and effect relationships.

Grade 5:
S1C1PO1: Formulate a relevant question through observations that can be tested by an investigation.
S1C1PO2: Formulate predictions in the realm of science based on observed cause and effect relationships.
S5C1PO1: Identify that matter is made of smaller units called molecules and atoms.
S5C1PO3: Describe changes of matter: physical (cutting wood, ripping paper, freezing water) and chemical (burning of wood, rusting of iron, milk turning sour).

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