

FARMING FOR FUELS Sponsored by



OUTREACH PRE-VISIT PAGE (GRADES 4-6) 60 minutes

Arizona Science Center will be arriving no later than 30 minutes before the start of your program(s). **Farming for Fuels** is intended to be a hands-on introductory program that answers:

- What are Biofuels?
- Where do Biofuels originate?

These ideas and more are explored in this exciting program about energy needs for transportation and why we should get away from fossil fuels.

PROGRAM NEEDS

- **5 adult volunteers to help facilitate stations; volunteers need to arrive no later than 15 minutes before start of program**
- 6 tables set up around the room that students can easily walk between
- Room with sink or water readily available
- Limited to 30 participants who will break into 5 groups
- 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 30 minutes between programs

SCIENCE STANDARDS

Grade 4: S4C1P01: Compare structures in plants (e.g., roots, stems, leaves, flowers) and animals (e.g., muscles, bones, nerves) that serve different functions in growth and survival.

S4C3P01: Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.

S4C3P02: Differentiate renewable resources from nonrenewable resources.

S4C3P03: Analyze the effect that limited resources (e.g., natural gas, minerals) may have on an environment.

S4C3P04: Describe ways in which resources can be conserved (e.g., by reducing, reusing, recycling, finding substitutes).

Grade 5: S1C2P01: Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.

S1C2P04: Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).

S1C2P05: Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).

Grade 6: S1C2P01: Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.

S1C2P04: Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).

S1C2P05: Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).

S4C1P02: Describe the basic structure of a cell, including:

- cell wall
- cell membrane
- nucleus

S4C1P03: Describe the function of each of the following cell parts:

- cell wall
- cell membrane
- nucleus

