



## Water Engineering

### How does acequia irrigation work?

Acequias are found all over New Mexico. How do they use gravity to help with moving water?

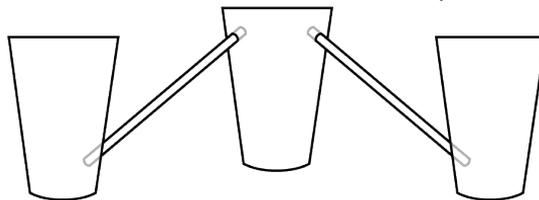
#### What you'll need:

- Disposable cups
- Drinking straws
- Modeling clay
- Hole punch
- Water

#### Here's what to do:

1. Use the punch to make **two** holes near the top of a cup. Place them on opposite sides of the cup.
2. On two other cups, make **one** hole near the bottom.
3. Poke a straw through each top hole in the first cup.

4. Poke the other end of the straws through the bottom hole in the other cups.
5. Use the modeling clay to form a waterproof seal around the straw and hole inside each cup.



6. Slowly pour water into the first cup. What happens when the water level reaches the straws?

#### What's the Science?

You're a hydrologist! **Hydrology** is the science of water movement over land. Acequias use an engineering system to move water to crops in places where there is not enough rainfall.

#### Explore further:

Can you design a bigger irrigation system with more cups and straws? How could you transport water over longer distances or to multiple cups in a chain? Is it possible to distribute the water equally to each cup?