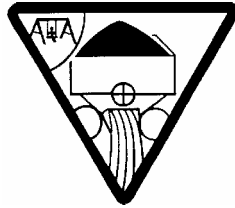


# Miniature Gravity Flow Wagon

## Instructions



### Demonstration Set-Up

- Fill wagon with unpopped popcorn (or other *untreated* grain) to top of reinforcements
- Place toy person on top of grain
- Have a container (an ice cream pail works well) ready to catch grain as it flows out of the wagon

### Teaching the Principle of Gravity Flow

- Ask "Who knows what "gravity" is?" Allow 2-3 children to answer. "Gravity is the invisible force that makes everything stick to the earth. It also causes the grain to flow out of the gravity wagon and grain bin. When grain flows it makes a 'vortex' just like a tornado vortex."
- Demonstrate the toy gravity wagon. "The grain flows very fast. If a person gets caught, or falls into the flowing grain, he could be buried in a very short time - about 10 seconds. We call that 'drowning,' just like in water, because there is no oxygen to breathe. Watch what happens to the toy person when I open the door on the gravity wagon. Help me count the seconds until the person is covered. Ready - 1-one thousand, 2-one-thousand, 3-one-thousand, etc." Demonstrate with toy wagon and figure entering from different locations, pointing out they will be pulled down from any place in the wagon.
- "By the time the person is buried up to their knees, they can't get out by themselves. Why? Because grain is heavy. Does anyone know how heavy grain is? Grain weights 50 pounds per cubic foot, the size of a 1' by 1' by 1' box." (*gesture with hands*) "By the time a person is buried up to their armpits, it would require 400 to 1000 pounds of force to pull them out. NO ONE is that strong!"

### REMEMBER

**"It takes only 8 to 10 seconds for a person, adult or child, to become submerged and eventually DIE from suffocation"**