**If They Build It, They Will Learn**

Sponsored by the Pre-High School Committee, AAPT

# The following Make-n-Takes were provided by Bill Reitz wreitz@neo.rr.com

# 1. Straw propellers

#  Literature: Isabella *Propeller and the Magic Beanie/*

# Karlson On the Roof/ The Glorious Flight

 **Materials**

|  |  |
| --- | --- |
| * 2 plastic drinking straws,

One straw must be larger in diameter than the other. The larger one should also be larger than the hole made by a standard paper punch | * Standard paper punch
* Cellophane tape
* Scissors
* Nail or Drill and small bit
 |

**2. Electric spiders/octopus**

 **Literature:** *Boris the Spider* (D. Harvey & D Postgate)

 *Diary of a Spider Anansi the Spider*

 **Materials**

|  |  |  |
| --- | --- | --- |
| * Thread
 | * Hot glue gun
 | * Glue sticks for gun
 |
| * Nail or drill with small bit
 | * Foam cup
 | * Wax paper
 |
| * Drink bottle cap or
* Film can lid or
* Plastic poker chip
 | * Mylar plastic film or
* Mylar plastic candy wrapper or
* Aluminum foil
 | * Scissors
 |

**3. Film can (pill bottle) Leyden Jar**

 **Literature:** *Who Really Discovered Electricity?* (Amy Jane Leavitt)  **Materials**

 +Pill Bottle +Paper Clip +Glue Stick

 +Aluminum Foil cut to height of bottle & slightly longer than its circumference

 +Cup of Water +Charging Device such as Fun Fly Stick or a PVC rod & fur

**4. Bristle Doll Dancers**

 **Literature:** *White Snake: A Tale from the Chinese Opera*

 **Materials**

|  |  |
| --- | --- |
| * Plastic water bottle
 | * Scissors cellophane tape
 |
| * Template for cutting the “bristles”
 | * Metal pie plate or cookie sheet
 |
| * Large screw driver, table knife or wooden spoon as a “tapper”
 |
| * Bristle Doll Patterns
 |

**5. Pill Bottle Submarine**

 **Literature:** *Papa’s Mechanical Fish*

 **Materials**

|  |  |  |
| --- | --- | --- |
| * **Pill Bottle with hole in lid**
* **Graduated cylinder**
* **Pennies or washers**
* **Alka-Seltzer tablets**
 | **or items to right as substitute for Alka-Seltzer** | * **Baking powder (approximately 10 mL)**
* **Baking soda (approximately 10 mL)**
* **Citric acid (approximately 10 mL)**
 |

**6. Mini stomp rockets**

 **Literature:** *The Rocket Book* (Peter Newell) *Sheep Blast Off*

 **Materials**

 +Plastic Pipette or dropper +“Bendy” straw

 +Straw that fits over “bendy” straw +clay

**7. Straw divers**

 **Literature:** *Monsters Don’t Scuba Dive*

 **Materials:**

 Straws (clear preferable) clay plastic drink bottle w/lid

**PLEASE CONTACT ME FOR SPECIFIC DIRECTIONS FOR ANY OR ALL OF THE MAKE-N-TAKES ABOVE**

**wreitz@neo.rr.com**