

## **PHYSICS PROJECT FOR CLASSES 6 – 8**

### **CLASS 6: CONSTRUCTION OF SPRING BALANCE**

Take a 3 inch long spring and a 6 inch plastic scale. Make a hole on number one side on the top and middle on the scale. Bend the spring ends so they make a vertical loop. Now take a key ring holder. Put the spring and scale the way you put the keys. Now your spring balance is ready. Put a S type hook to the spring the other end. Tie a toothpick in the middle of the spring. Now note the reading of the toothpick. Attach a known weight and read the toothpick reading. Attach another known weight and read the toothpick position on the scale. You must hang the key holder. Now you know the weight and the number of divisions the toothpick has moved. You have the scale. You weigh unknown weight and take the reading. Calculate its weight and compare its weight with the other balance. Your spring balance is ready

### **CLASS 7: CONSTRUCTION OF PIN HOLE CAMERA**

Make your own camera out of materials around the house and take black and white photos with it. You will need a box, photo paper, thin piece of metal like a can or brass shim, tape, knife, needle and sand paper. The pinhole is like the lens of the camera. Poke a tiny hole in the brass shim with a needle and sand it smooth. Trim the shim so there is a little space around the hole. You can use a shoe box, oat meal box or whatever. The box must be light proof. To make it light proof, you can paint the box black from inside or can cover it with black chart paper from inside. When the lid is on and the shutter is closed the inside is completely dark. The only light comes through the pinhole. Make sure there are no holes or openings in the box. You can use butter paper, tracing paper or even lens to work on. Now use your innovations to let it work!!!!

### **CLASS 8: CONSTRUCTION OF FIRE ALARM USING PROPERTY OF THERMAL EXPANSION OF SOLID, LIQUID OR GAS**