# Equipment List Leonardo's Invention Club

## **Individual Equipment:**

## Throughout the quarter you will need:

Drawing Pencils 2B, 4B

Pencil Sharpener

Eraser

Sketch Pad - 11" X 14"

Protractor

Compass

Ruler with metric and English units

Colored Pencils (optional)

Other things we haven't thought of yet.

## Pinhole Camera Project:

Scissors

Oatmeal or light tight box

Spare cardboard

Exacto Knife with extra blades

### Ornithopter Project:

Exacto Knife with extra blades

2 small glass jars with air tight lids

Shoebox to store partially built ornithopter

## **Shared Equipment**

## Graph Paper

Pinhole Camera Project
Black vinyl electricians tape
Black acrylic paint
White acrylic paint
Cellulose Model Glue: Ambroid, SIGment, Duco
Small cheap paintbrush for glue
Medium cheap paintbrush for paint
#10 hand sewing needle
pencil with eraser
brass shim stock .001 inch or .001 inch
600 grit sand paper or crocus cloth
Kodak TMAX-400 Black and White 4"X5" film – 50 sheets @\$42.95

### Ornithopter Project:

Cellulose Model Glue: Ambroid, SIGment, Duco Small cheap paintbrush for glue Acetone Methyl-Ethyl Keytone Small needle nose pliers

#### Final Project Ideas

Below is a list of final project ideas. Please don't feel that you have to pick from this list. If you have other ideas feel free to run them by us. Also it is okay to choose something that someone else in the class has chosen.

You may work by yourself or in a group. The final projects are due the last week of the quarter. They are an opportunity for you to delve deeply into a part of the course that interests you.

Perspective Machines
Analysis of Perspective in Paintings
Perspective Drawings
Pinhole Cameras - Going Further - Different cameras, Infrared film . . .
Magic Mirror Room
Build a replica of one of Leonardo's or Brunelleschi's machines
Perform an Hockney analysis of a painting
Build a Trebuchet
Complete analysis of the ornithopter
Compare a modern machine to one of Leonardo's designs
Build Arch models