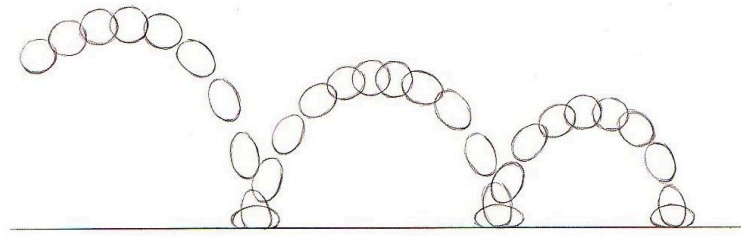# Project: The Bouncing Ball: 175 POINTS

- Create your own Bouncing Ball.
- Key objective: Using the 12 Principals of Animation, demonstrate the mass and material of an object based on how it bounces.
  - The ball can be either alive or inanimate. Beyond that, use your own creativity.
  - The viewer of the animation should be able to determine the basic mass and material of your ball, just based on your use of timing and squash and stretch.
  - Figure out what you are going to draw in your sketchbook FIRST.
  - *Do not use any copyrighted material.*
  - Create a **storyboard** of your animation using 4x6 index cards and black foam board.
  - Shoot a reference video of an object with similar properties to use for accurate timing.
  - Use normal 8.5x11 sheets of paper for animation. Use the 3-hole-punch to punch holes in the paper to use with your round peg bar and the light boxes.

- Resolution – **1280x720 (16:9)**
- Length – Approximately **3-5 seconds for a single** (72-120 frames)**, 6-10 for a team of two** (144-240 frames) at **24 fps**.
- It's a good idea to number each paper (out of frame) in case they get out of order.
- Outline your drawings with a thin black marker and erase your pencil lines. The scanner and software will pick them up better.
- Scan your final images with a scanner, or photograph them with the animation stand. Affix your peg bar with tape onto a scanner or onto the base of the animation stand to keep the position consistent.
- Import your scans into *Toon Boom Harmony, OpenToonz, TVPaint* or other 2D animation software to *vectorize* them. (We will learn Harmony in class).
- Color, clean up and add various appropriate effects with the animation software.
- You may add sound if you wish.
- Final output – **Quicktime** movie using **H.264** compression.
- **Due dates are according to the syllabus.**