In class we discussed how to make your own black and white silver-halide film. It basically comes down to making salty jello, where the salt is not the usual table salt, sodium chloride (NaCl), but silver iodide (AgI) or silver bromide (AgBr). You have to make the salt by a chemical reaction, and do it in the dark because silver halide salts are sensitive to light. Imagine that the table salt you use fell apart when you left it out in the light!

A detailed description of how to do it is available at various websites. This one is a good example and is the source of the pictures above:

http://www.costaricacoffeearart.com/alternative_photography_make_your_own_negative_film_or_plates.php

For extra credit, make some plates of your own, take some pictures, and bring in the negative plate.