ART 35 **Handout #2:** BASIC MOLD-MAKING Name_____

MAKING A MULTI-PIECE PLASTER MOLD:

Step 1: Determine and note parting lines, and total number of mold sections necessary.
Step 2: Build clay around pattern up to the parting line. Form inlet for pour spout (or cut later).
Step 3: Build any necessary dams for the plaster and make registration keys in the clay (or cut later).
Step 4: Apply appropriate parting agent: brush on petroleum jelly, spray release or clay slip.
Step 5: Mixing plaster.

Step A: Fill a rubber bowl about **1/3** full of clean water, allowing room to add and mix plaster.
Step B: Slowly sift plaster into the water until a "mountain peak" maintains itself for 30 seconds. (Add just a bit more for good measure.) Soak 1 min., or until bubbles stop.
Step C: Hand-mix very well for about 30 secs., or until even. Avoid whipping in excess air. (For larger batches, use a propeller mixer, held at 75°, mixing downward.)
Step D: Quickly and evenly apply plaster to piece. Use reinforcement, such as jute, as needed.

Step 6: Allow the plaster to fully harden, at least 30-45 minutes.
Step 7: Turn over, remove clay, clean the pattern, and repeat steps 1-6 as necessary. Cut pour inlet.

MAKING A CLAY 'PRESS' MOLD: Moist water clay can be used to make a quick, surprisingly effective mold for a single use. No other parting agent needed to cast wax or plaster.

MAKING AN ALGINATE MOLD: Alginate is a natural seaweed product, ideal for reproducing body parts in wax or plaster, and is safe on skin. Porous models (such as dry skin) **must** be sealed, as with a layer of petroleum jelly. Keep in a tightly sealed container. Alginate sets quickly, in about 5 minutes, and must be backed up immediately with a mother mold, or cast in a container. Minimum safety precautions—clean up with water. Alginate has a very short cured life—begins to shrink immediately. New batches of Alginate will not adhere to batches that have already set up.

Mix by volume: 1 part alginate into 1½ parts water. Mix quickly using clean water in a clean container. May be thickened with more alginate or thinned with more water. Apply over **prepared** model as quickly as possible. Will begin to firm up in about 5 minutes. (Warm water will speed set time.) Clean up with water. Back up as necessary with plaster or other mother-mold, such as plaster and jute. No parting agent is needed to cast wax or plaster into alginate, but this must be done soon, since it will quickly begin to dry out and shrink.

MAKING A PLASTER-GAUZE BANDAGE MOLD: Plaster-gauze bandages are also ideal for body casting. Lightweight, strong and versatile, they are not as massive as standard plaster molds and will not get as hot while setting, but traces of gauze pattern may be evident in the final mold.

Always prepare by thoroughly coating skin and hair with petroleum jelly or mineral oil. Otherwise, the hair will be pulled out when the bandages are removed. Pre-cut 6" strips of bandages and form a pile, along with a bowl of warm water. Dip a piece in the water and place on prepared model. Firmly rub surface of the bandage to work wet plaster into the gauze. Repeat, criss-crossing pieces until the form is covered with at least 4 or 5 layers. Let set about 15 minutes. Cuts may be made in the bandages after curing, if necessary for release from model. Clean up with water. As with all plaster, soak the cured plaster-gauze bandage mold in water before casting wax, and use petroleum jelly or clay slip before casting plaster.

RESOURCES: *Gauze-Bandage:* ***Lenz*** *or* ***Palace****. Supplies such as wax, alginate, rubber, releases, etc:* ***Douglass & Sturgess****, 730 Bryant St., SF, CA, M-F 9-6. 1-888-ART-STUF or www.artstuf.com*