Make pictures - as per Navajo Indians. Cheating method: Equipment: Wax crayons/Candle. Glue pen. Sand of different granular size/colour etc (as available) Photo-copy of picture/pattern (copyright free of course  $\langle g \rangle$ ) - or can be done freehand. Method: 1) a) Trace round outline/lines with wax crayon colours as required/available. 1) b) Fill in shape/ body of drawing with wax crayon. 2) a) Fill in shape/ body of drawing with glue pen. 2) b) Trace round outline/lines with glue pen. 3) Liberally sprinkle sand over picture 4) Tip off excess Difference between rough and smooth: - Uses for sand As sand paper/abrasive. Make rough things smooth Messy: Make adobe bricks, mix sand and soil to make home made bricks use match boxes etc to create moulds, 'sun dry' on radiator or window ledge.

Make little houses with grass roofs, paper roofs, aluminium foil (corrugated metal sheeting and spot welding/use of hacksaws is not recommended for reception class!) Make houses out of other materials paper etc. Put them in the garden/grounds how long do they last - vandals permitting.

Well, first off for just some starters here and maybe variations of what you have already done--let's play in the sand!

The "Indian sand painting" that Keith mentioned can be used again and again -children can write their names via "Indian sand painting"--it's easier actually if you just use white glue and have them use smal paint brushes to spread the glue on before they sprinkle the sand. Also, you might want to dilute the white glue with some water. Also....color the sand with food coloring to have children make either colorful designs (Native American style), be their own creators and imaginators and sand paint whatever they want, or write their name in color. Talk about why the sand changed colors--what did you do to it, and what did it do--absorbed the color. Anyway....

(1) Fine sand and coarse sand both have different properties. Have the children experiment with both types first, and both wet and dry. Then you might want to ask the following questions: (a) which pile of sand got "wettest" (b) which was easier to build things with (3) which felt nicest to touch (4) which pile of sand do you think you'd want to use for making a tunnel or a castle (5) which pile of sand would you want to sue to pour and measure and sift with...etc. You might also even want to get a pile of dirt and make comparisons

then between the three piles and ask the same questions and why...look out though--when you add water to the dirt--you're gonna have muddy hands! :-)

(2) Make a Sand Timer --punch a small hole in the bottom of a can and three additional holes at the top. String then can be threaded through the three top holes so that the timer can be suspended and hung over the sand table. Using a "big timer" the children can keep track of when three minutes or five minutes or whatever you determine are up. You can discuss that sometimes we use sand timers instead of clocks. You can use the same thing using a large paper cup with a hole punched in the bottom and three equi-spaced around the rim of the top of the cup. You might even want to have "racing" sort of games with a known-timed amount of sand in the cup and have someone be the time-keeper.

(3) Have the children make plaster of Paris molds of their little hands or feetgreat for gifts actually. To cast a mold ask children to add water to a small, individual tub of sand. They have the child press one of their hands (or feet) into the wet sand. Using Plaster of Paris, assist the child in filing the hand print with the plaster. After 40-50 minutes the plaster will feel cool to the touch (you can demonstrate how it will be very hot at the beginning as soon as it is poured into the mold actually), and it will be hard to their touch. The child can they lift their mold out of the sand, and the mold can then be painted and decorated. You can also use this to make fossils--for example--and have them explore and use a broad range of items--buttons, bottle caps, make a mold of a fat marker, etc. in the sand--voila--"fossils"!

After such an activity--(1) how could we tell when the plaster is hard? what happened to the plaster as soon as we poured it--could you tell how it felt different from the sand (plaster will be hot -- wet sand cool (2) how does the plaster hand look like your own hand (3) can you tell someone else's handprint from yours (line them up and see if they can guess).

(4) Balance and weights with a balancing scale to use and explore weight of sand--does the same amount of dry sand balance out the same amount of wet sand? Why? What is different about the wet sand that makes it weigh more and tip the scale. All sorts of measuring activities. Also make holes oif different sizes and amount of holes as well--in paper cup containers, tin can containers, etc. Have the children experiment and see which pours through faster and which pours through slower--why? Vary the type of sand as well.

(5) make comparisons in sand table play by varying it--add beans instead of sand to the sand table--it's a mess to clean it out--but well worth it. Or add rice--kids love a rice table probably more than the sand table for dry playing. Talk about the differences between all three. You can accomplish basically the same functional play with sand, rice and beans yet give totally different sensory experiences. You might also want to get small plastic tubs -- about 15 inches by 20 inches or so--and make individual "rice tables" and "bean" tables--have different groups using all three--sand, rice, beans--see which the kids like better.

Water later! Need any more?

I have quite a bit of information that I provide you on sand and water play ( for socio-emotional growth, cognitive development, as well as physical fine/motor development) -including objectives, strategies, setting up "props" for play in these areas to encourage discovery and exploration in science and maths, not to mention then the extension of that play in these areas that you can then take in the classroom and enrich upon and develop and integrate into the classroom. For example-- (1) how water changes things (2) sinking and floating and a wealth of activities and exploration you can develop and encourage the children to experiment in (3) observing and recording grains of sand (4) comparing different types of sand (5) using sand and water in art., etc.., etc., etc....and the "props" you can use to get you off and running to encourage exploration for sand play (dry or wet), props solely for dry sand play and props for water play.

Since you don't mention what experiences have already been afforded the children, give me an idea of where you would like to go with this and I would be happy to share the rather large amount of get-you-started <g> curriculum information and suggestions to develop these important areas of sand and water play. What activities in these areas have the children really enjoyed, for example, and then enrich and expand these areas (as an example).

(1) On waterplay, have you made soap bubbles? Just add a really good quality washing-up liquid to the water in a ratio of 1 cup to one gallon of water. You can add glycerine to the water/washing-up mix and a \*\*really\*\* spectacular mix would be to add about 50 drops of glycerine to one cup washing-up liquid, one gallon of water. The bubbles produced are absolutely fantastic to see. Truly beautiful and will produce oos and ahhhs even from you! :-) You can have the kids make different kinds of frames from which to blow bubbles from--empty eye glass frames, just plain old straws will do nicely--plastic rings, coat hangers or wire shaped into various shapes, plastic lids from margarine cut into shapes, etc. If you can get hold of a plastic berry box that has grids or holes in it--try that one for a frame. :-)

(2) The proverbial sinking and floating can take a new twist when you collect a number of objects that float and a number that don't float. (a) what happens if an object that floats is held under water and then released (6) what happens if a floating object such as wood is weighted down with non-floating objects such as stones?

3) take various "things" such as blotting paper--or a paper towel, dried beans, salt, regular paper, sponge, etc...then have the kids use a medicine dropper to moisten these materials slowly. As they become wet, ask questions to encourage children to describe what they think is happening (a) did anything change shape when you added water to it (how does the blotter look different when it is wet and then when it is dry. You can then follow-up with a discussion on what actually happens and takes place when each material is made wet.

(4) do some experimenting by adding a small mount of soap to the water table and giving the kids whisks, hand beaters, etc...don't say anything and let them discover all of a sudden that when they make the water move faster--what has happened--bubbles appear! The faster they whisk, they more the suds.

(5) add sound to the water table experience by demonstrating various sounds produced when different levels of water are placed in glass containers. Kill two birds with one stone here as well--sound and water play. :-)

(6) of course you can do too--changing properties of water--from liquid to solid and do some experiments with freezing water--does it take longer to freeze a small amount of water than a large amount of water, etc. Get some other science applications in with water table fun besides the measuring, pouring, etc.

Okay..now I am ready for you to share with me some things that you have done at these centers that I need to use to add spice and a chance of scenery for a new twist.