

Lesson Plan 5 Title: "Let's make a model"

Concept / Terminology / Topic to Teach: Design, model.

Class Goal(s)/Objectives: After brainstorming and doing some first drafts on paper engineers start to try to come up with 3D models of the construction. These can be made out of many different materials. These can be paper models, cardboard models, models with mixed materials...anything that can help them start visualizing the final construction, while still being flexible enough to move components in order to experiment with possible solutions. Today you will start working on your 3D models.

Required Materials: 2 gender neutral puppets, the toys that represent Sam's dolls, cars etc, sets of blocks, big paper to write on the wall, image of Sam and Andy with sketches to be placed on the wall under the already existing ones, a cardboard with the children designs or smaller images of them.

Setting: Classroom, Large group time, small group time

NOTICE. This large group session should be shorter to give the children more time to build and to use the toys on the building as much as possible.

Step-By-Step Procedures: During large group time you will start with revisiting what happened in the last two classes (always using the puppets that are talking about it). Sam is going to tell Andy that during the last classes the children came up with some great designs in order to help her with the toys situation. Sam will then mention the ideas that the children have come up to in the last classes. The ideas will be written on a list and a small image will be drawn next to them. Then Andy will propose that it would be nice to actually try to see how these things would be if the children would try to make a model with the blocks, and will ask the children to go to the (different for each group) building area.

Plan For Independent Practice: During small group time Andy asks the children to try to see what their designs would look like. Every group will be placed in an area with a set of blocks and Sam's toys, to try to build what they were designing in the

previous classes. Strongly encourage the children to build as a group. If they decide to build separately then when they will be done try to connect their buildings by using them in one town setting (i.e. oh so this is where the dolls sleep and this is when they are going to swim. Do they drive there or do they walk)

Closure (Reflect Anticipatory Set): End the class by asking the children to explain what exactly they have been building.

VERY IMPORTANT:

When discussing the constructions with the children ask them if they were missing anything that would help them build easier. Take a note of whatever they may mention in order to try to have it in class for the next lesson.

Get a picture of their final construction.

Expected responses/requests

-I wish I could make a bed for the doll but I don't have enough blocks.

-Would it help to use something different to make the bed? Could you use a different material? (If the children don't come up with ideas propose stuff they could use for modeling or encourage them to use other toys or objects from the class)

Assessment Based On Objectives: Children should come up with some construction that will be used by at least one of Sam's toys.

Possible Connections To Other Subjects: motor skills improvement, language (while explaining their construction)