

Lesson Plan 13 Title: "Let's get prepared for our constructions"

Concept / Terminology / Topic to Teach: Criteria list, Information gathering, Materials,

Class Goal(s)/Objectives: Usually after having come up with some initial ideas, engineers are creating criteria/requirements lists in order to start planning the actual product implementation. This is also a good time to consult other engineers in order to discuss problems that may appear in the design, or just to get more ideas.

Required Materials: 3 gender neutral puppets, card boards to make the lists. Images of Sam and Andy recapturing prior activities that took place (see examples bellow). Letter to be sent to the parents.

Setting: Classroom, Large group time, small group time.

Step-By-Step Procedures: During large group time you will start with revisiting what happened in the last classes (always using the puppets that are talking about it). Andy is going to tell Sam (with the help of the children and by using the images on the wall) things that the children have done so far in order to come up with ideas about how to move on with their buildings (children have so far did their own drawings, tried to build models to see how the dolls, cars, etc would fit in them, they made maquettes, they visited some buildings outside of class and sketched them to get more ideas, and have also tried to investigate their own building to see how things work in it, how to get light, water etc). Andy now tells Sam, that in order to get more ideas, one new friend Drew that is also an engineer to give them more ideas and discuss how the buildings should be done. Drew will not start talking with the children about where they think they can find more information regarding buildings. Use a card board to make a list with the ideas that children will come up with.

Drew:

-Guys where do you think we can look for more information about buildings? Can we ask someone or look somewhere? What do you do when you have a question about something?

You can keep the discussion as a large group or (depending on the number of the children) break it into the small group discussion.

Plan For Independent Practice: In the small group activity children can decide what they want to build and if they want to build their final building by themselves or with other children. Then they can start discussing what materials they can use to make the building. (i.e. card boxes, plastic bottles,) Use the sketch of a building to note materials that can be used. Then make a list of the materials mentioned. As the children discuss their ideas ask them why they think this material is a good idea.

Closure (Reflect Anticipatory Set): End the class by revisiting the list with the materials the children have identified that can be used in the building.

VERY IMPORTANT:

Let the parents know what the main themes of buildings have emerged in class so far, and ask them to gather information about these building with the children. Let them know the day the children will present this new information in class, in case they want to watch the presentation. Encourage them to let the children use the technology in order to gather the new information (i.e. to use the camera, the computer etc)

Assessment Based on Objectives: Children should have come up with identifying at least one different information source, and one material they can use in their different buildings and justify why.

Possible Connections To Other Subjects: motor skills improvement, language (while discussing the elements in their sketches), reasoning, math/science (while counting how many and what materials they may need), technology (when discussing where they can find new information).