ARE YOU MY MOTHER?

A baby bird goes in search of his mother after he falls out of his nest in P.D. Eastman's classic story. Can you build him and his brothers and sisters a new nest that is lower to the ground?

Materials: "Are You My Mother?" by P.D. Eastman, four baby birds per group, DUPLO hula hoop, nest pictures, model of nest and eggs, DUPLO bricks.

Intro: Review rules and process of engineering. Show students the model nest and eggs and discuss. Ask "***What is this?"*** and "***Who would make this kind of thing?".*** Point to the eggs and discuss how birds are animals that lay eggs. Ask "***Why would a bird build a nest for its eggs?"*** Show pictures of different nest and discuss how they are similar or different to each other. Tell students that today they will be learning about a baby bird that has a big problem!

Story: Read aloud **"Are You My Mother?"** Ask questions such as "***What is the baby bird's problem?"*** and ***"What question does the baby bird ask over and over again?"***, ***"Does the baby bird get back to his family?".*** Discuss how the pictures are an important part of telling the story.

Challenge: Divide students into four groups. Explain to students that they will pretend to find not **ONE** baby bird, but **FOUR** of them. Tell students that each group will be responsible for building a new nest for all four of their baby birds with the following rules. **The nest must be sturdy. It must off the ground. It**

must be big enough and comfortable enough for the four baby birds to sit in. How will they build the nest?

Build: Divide students into work groups. If you like, assign one student to be the foreman. The foreman will make sure that everyone works together and presents questions to you on behalf of the group. Monitor each group by observing student interaction and asking pertinent questions, such as "***How will you know how big to build the nest?" "How can you make the nest so that it does not sit on the floor?"*** and ***"Is that a stable nest or does it tip over too easily?"*** Allow students time to build.

Debrief: Gather students together and discuss problems and solutions that might have come up during the build time. Ask: ***"What worked?***" ***"What didn't work?"***

Presentation: Visit each group's construction. The group presenting are called the "Sitters" because they sit and describe what they've done. The teacher and the rest of the class are called the "Standers" because they stand around the presenters in a circle to observe and ask questions. The standers and the sitters change depending on the group presenting. As a class, decide which constructions solved the problems and why. Which nests were big enough and sturdy enough for all four birds?