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Inside Problem Solving

Cut It Out

PreK

Materials: Square tissue paper and scissors for the teacher to use during discussion, square tissue paper for every student to hold and examine

Discussion on the rug:

Teacher holds up the square tissue paper. **"We are going to think hard and make a picture in our brains. Follow me in folding our pieces of paper. First fold the paper in half like a hotdog bun. Next, fold this same paper in half again, but this time like a hamburger. If we unfolded the paper, what will it look like?"** Students think about the folded parts that make four squares. After soliciting some guesses, students unfold the paper to examine the results. **"Why did that happen?"**

In small groups: Students have re-folded their papers. Teacher demonstrates cutting the folded corner with a diagonal cut. **"If I unfold the paper, what will it look like now?"** Students make a drawing of what they visualized. The teacher unfolds the paper and asks students to explain how they pictured the altered paper. The process is repeated with a new paper; the teacher cuts out a small square in the folded corner. The third time, the teacher cuts a quarter of a circle out of the folded corner.

At the end of the investigation: Students either discuss or dictate a response to this summary question. "Explain how you know what the paper will look like after we fold it and the paper is cut." - Inside Problem Solving: Cut It Out -

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