

Miles of Tiles

PreK

Materials: Set of Cuisenaire Rods per group, paper frame and paper tiles

Discussion on the rug: Teacher holds up the picture of the empty picture frame. **“We want to make this frame colorful. How might we make the frame colorful?”** Teacher solicits answers from students. **“Those are good answers, but I was thinking we could use color tiles.”** Teacher holds up some tiles. **“How could we use these tiles to color the frame?”** Students demonstrate. **“What do we need to be careful about in placing these tiles?”** Teacher questions students to clarify that the tiles must not overlap or gap in order to fit in the space provided.

In small groups: Each group has an empty picture frame and a set of tiles. The teacher states, **“We want to make the frame colorful. Try to put the different tiles around the frame. Can you make them fit? We don’t want white area showing (gaps). We need to be careful not to cover other tiles (overlap).”**

Students use rods to guess and check. Once they have found a solution, they may glue the paper tiles down on the paper frame. Once the class has completed their frames, process the activity by looking at student work and asking, **“How are the frames alike? Different? How do we know whether the tiles fit? How many different frames do we have? What parts of the frames are alike? Why? Explain how to design your frame.”**

At the end of the investigation, have students either discuss or dictate a response to this summary question.

— Inside Problem Solving: Miles of Tiles —



