

# Tools of Geometry

## Dear Family,

These activities provide an opportunity for you and your child to share knowledge of mathematics. I invite you to choose one or two activities and complete them together. Please have your child return the family project(s) to me by \_\_\_\_\_.

**Materials:** pad of paper • pencil

## What's Your Angle?

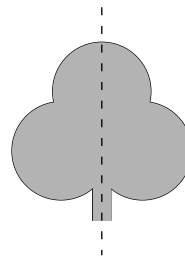
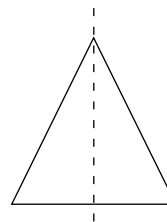
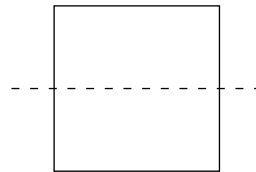
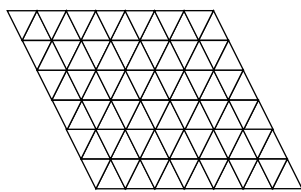
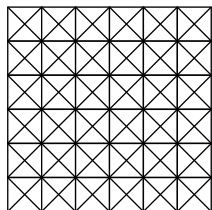
Take a pad of paper and a pencil with you as you take a walk around your neighborhood. Point out and sketch different angles used in at least three buildings or other structures. What patterns can you find? Then describe how angles are used in architecture. Finally, write a few notes that describe your sketches.

## Take a Look Around

Discuss *line symmetry* with family members. (A figure has line symmetry if a line can be drawn that divides the figure into two halves that are the same shape and size. This line is called a *line of symmetry*.) Then ask each family member to try to locate an example of line symmetry in your home. Make sketches of the examples.

## Picking Patterns

Have each family member find a pattern in your home, such as on the floor, the wall paneling, or the wallpaper. Are the patterns tessellations? (*Tessellations* are repeated geometric designs that cover a plane with no gaps and no overlaps.) Then make rubbings or draw sketches of the patterns that form tessellations. Finally, explain why the examples below are tessellations.



## What Do You Think?

Please take a few moments to let me know how you enjoyed these activities. Write your comments on the back of this sheet and have your child return it to me by \_\_\_\_\_.