Verifying Properties of Squares

Patty paper that comes in squares can be used to focus the attention on parts of the square such as sides and angles and their properties. By folding the square and overlapping different parts we can see the relations between them.

Activity 1

Fold the square in half as shown in Figure 1, so that one side of the square overlaps the opposite side (a and d are opposite sides).

- *What can you say about the length of the opposite sides in a square?*
- *What can you say about the size of consecutive angles in a square?*

Figure 1

Activity 2

1) With a different square fold along the diagonal as sohown in Figure 2, so that one corner of the square overlaps perfectly on top of the opposite corner.

- *What can you say about opposite angles?*
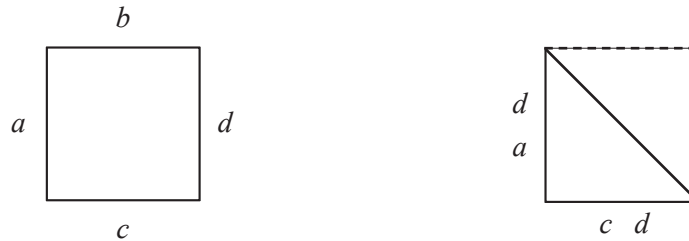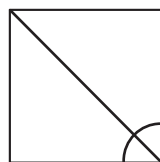- *What can you say about consecutive sides of a square?*

Figure 2

- *With the information we have so far can we say that all sides in a square are equal? Why?*
- *Can we say that all angles are equal? Why?*

2) Convince yourself that in a square the diagonal cuts the right angle in two equal angles.

Figure