

# MATH EXTENSION—PAPER BOXES

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## Investigation 3: Getting to Know Paper

### Materials

- Paper boxes
- Crayons or marking pens
- Transparent tape
- Large sheets of newsprint or newspaper



### Set Up the Center

Place all the materials in a convenient location so they will be ready for students to use as needed. Some students may prefer to work on the floor.

### Guide the Investigation

- 1. Choose a box to take apart.** Let students get the boxes they brought in so they can take them apart. They might also choose a box from the teacher's collection.
- 2. Take the boxes apart.** Let students begin taking the boxes apart. Some students will need help finding the seams. Help students identify the places where the boxes were glued together. If any boxes get torn, repair them with tape.
- 3. Trace the boxes.** When the boxes are flat, have students trace the outline on newsprint or newspaper. Students may work in pairs, one student holding and one tracing.
- 4. Reassemble the boxes.** Have students fold the boxes back into their original shapes. Provide tape to secure the flaps and seams.
- 5. Ask questions to guide discussion.**
  - How can you tell where the seams are?*
  - What is the best procedure for tracing around the box?*
  - What is the best way to put the box back together? Do you start with the top, the bottom, or the sides?*
  - Compare the tracing and the reassembled box. How are they alike, and how are they different?*
  - Can you find any flaps that were glued to hold the box together or tabs that can be tucked in a slot to reclose the box once it has been opened?*

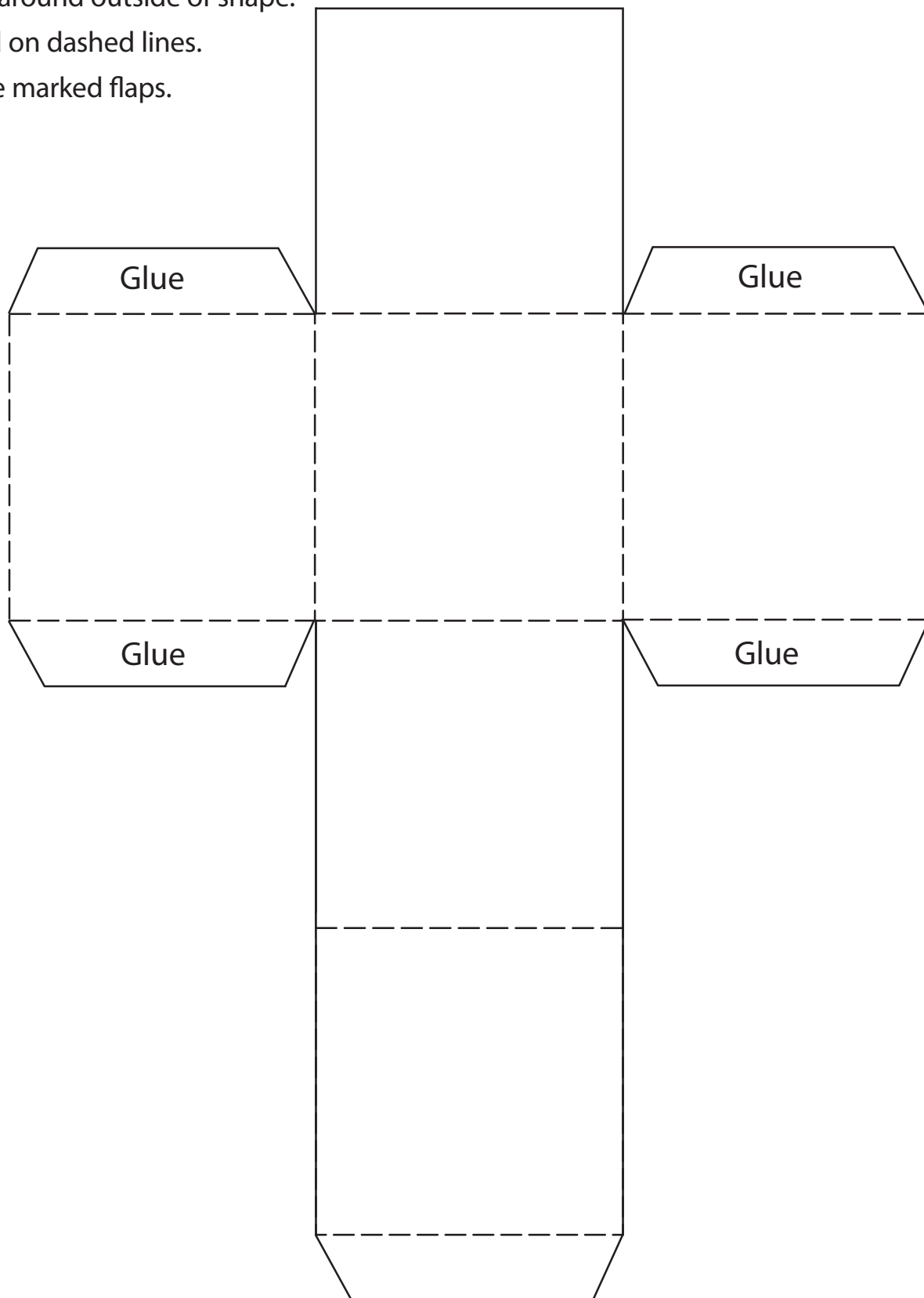
### Vocabulary

Try to include these words in discussions with students:  
*bottom, box, edge, outline, overlap, seam, shape, side, top, trace*

# MATH EXTENSION—MAKE A BOX

## Investigation 3: Getting to Know Paper

- Cut around outside of shape.
- Fold on dashed lines.
- Glue marked flaps.



# MATH EXTENSION—MAKE AN ENVELOPE

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## Investigation 3: Getting to Know Paper

- Cut around outside of shape.
- Fold on dashed lines.
- Glue marked flaps.

