

Size It Up



Today's challenge is to turn a small picture of Ruff into a large one. See how perfect the big picture has to be to still look like Ruff. Can we really trust our eyes?

What to DO

1 get what you need.

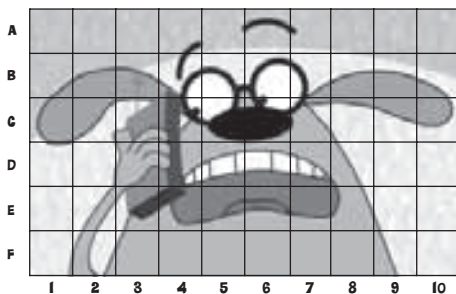
- Pencils • Yardstick
- Chart paper or newspaper
- Three-inch square sticky notes (The full picture requires 60.)

2 Make a grid.

Use a yardstick to make a grid of 60 three-inch squares on newspaper or chart paper. Label the columns 1–10 and the rows A–F.

3 choose squares to draw.

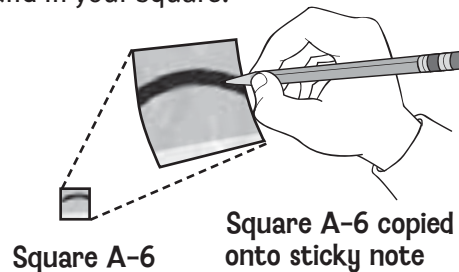
Look at the picture of Ruff on the back of this sheet. Using the row numbers and column letters (for example, A–6), assign squares to yourself and to your friends.



Use the full-size picture on the back of this sheet.

4 enlarge the square.

Copy everything in your square so it fills the entire sticky note. Find where the parts of the picture would be on your sticky note. For example, a line halfway up the right side of your square will also start halfway up the right side of the sticky note. Use your pencil to capture the white, gray, and black tones found in your square.



5 Post your drawing.

Put the sticky note in the correct place on the grid. Repeat steps 3–5 with other squares until the picture is complete.

6 Examine the picture.

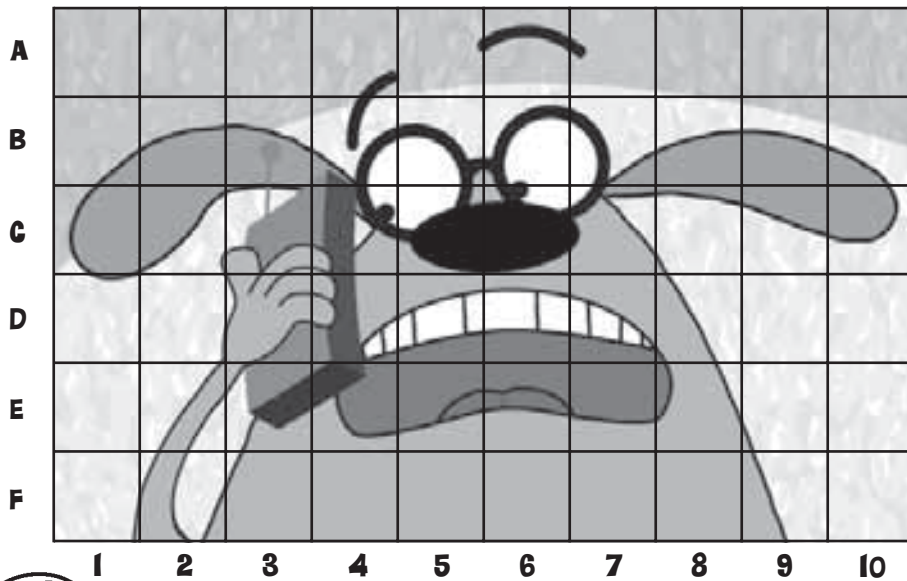
When the large picture is complete (or nearly complete), stand close to it. Note any lines, shading, or parts that don't line up perfectly. Then step back a few steps. Do the flaws stand out now? Finally, move to the other side of the room. Are you still aware of the flaws? What happened to them?

chew on This

From far away, the picture looks pretty good. But up close, you can see all sorts of flaws. Every moment, your brain collects an amazing amount of information. It then simplifies things for you by organizing the information into patterns. So parts of the mural may not be perfect, but from far away, your brain makes the pieces come together as a pattern that you recognize as Ruff. The eye and brain work together, like a team, to make sense of what you are seeing.

Dig Deeper

- * Look at a newspaper picture through a magnifying glass. Do you see a lot of dots? How far away do you have to hold the picture before the dots blend together and form the image?
- * Some painters use dabs of paint to create an image. As you move back from a painting, these dabs come together to form the image. Make a painting or drawing using different-colored dots.



Watch **FETCH!** on PBS KIDS GO! (check local listings) and visit the **FETCH!** Web site at pbskidsgo.org/fetch.



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Fold

Fetch!

Size It Up

Some pictures are just never big enough—dog biscuits, squeaky toys, fire hydrants, and of course, me, the very handsome Ruff Ruffman! But I need your help. Grandma Ruffman wants a big picture of me for her living room. But the only photo I have is a tiny one I made for Charlene, the poodle next door. Help me enlarge my picture!

**GOOO
FETCH!**

