



**ZOOMsci Activities**

**Try It Out**

**ZOOMon: Change One Variable**

**Share Your Results**

**Keep ZOOMing**

**PATTERNS**

**Backpack Challenge**



Record the weight of your backpack and see how it varies during the week.

- Day of week
- Gender
- Grade

- On what day was your backpack heaviest? Why?
- Collect data from other people. What patterns do you see between boys and girls or among different ages?

Look for patterns in ZOOM's national data:  
**[pbskids.org/zoom/backpack](http://pbskids.org/zoom/backpack)**

**Guess My Rule**



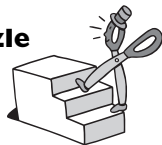
Group objects that have one thing in common. Then have someone guess your "rule."

- Things they have in common
- Type of objects

- What rule did you invent?
- What strategy did you use to figure out someone else's rule?
- Why were some rules easier to guess than others?

Try more classification activities:  
• Bird Feeder  
• Tongue Rollers

**Paper Puzzle**



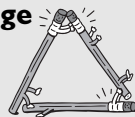
Make two equal rows with eight different strips of paper.

- Make three equal rows.
- Make a staircase with three steps that are each one inch longer than the next.

- How did you make two equal rows?
- How did you use what you learned to make three rows?

Now try using all eight strips to make four equal rows.

**Pencil Challenge**



Arrange seven pencils to make three triangles.

- Make six triangles using ten pencils.

- What strategy did you use to make three triangles?
- What other shapes can you make with seven pencils?

Instead of triangles, make two squares using six pencils.

**Square or Rectangle**



Compare your arm span to your height to find out if you're a square or a rectangle.

- Age
- Gender

- What shape are you?
- Are more girls or boys squares? Why?
- Why might your shape change as you get older?

Analyze the national data:  
**[pbskids.org/zoom/sci/squares-rectangles.html](http://pbskids.org/zoom/sci/squares-rectangles.html)**

**Tangram**



Make a square from seven different shapes.

- Make a triangle.
- Make your own shapes.

- How did you make the square?
- What other shapes can you make using all seven pieces?

Instead of a square, make one large triangle using all of the pieces.