Flipping the Switch

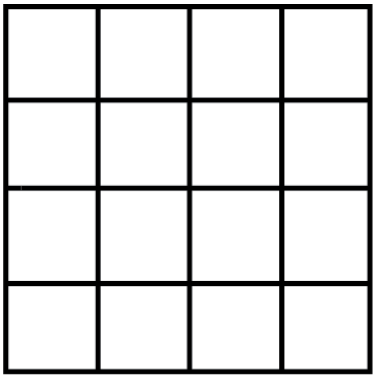
Seeing Squares

Spatial Requirements: Regular classroom setup; little or no space required
Activity Type: Object
Grades: 5-12
Group Size: 1 or more
Time: 5-10 minutes

Introduction: In this activity students are asked to count the total number of squares in a 4x4 grid. At first they may only look at the obvious squares but as students identify more and more squares throughout this activity, they will be introduced to the idea of reframing their thoughts. When they are prompted to relate the activity to their own challenges, they will start to understand how they can see and use their challenges differently.

Materials:

- A whiteboard or poster board with this design:



Activity:
Cover the design until you are ready to begin the activity. (If you are using the included powerpoint slides begin with the blank slide)

When you are ready, remove the cover (or advance the PowerPoint slide) and instruct students to count how many squares they can see in the design.

Give students approximately 25 seconds to count the number of squares they can see. When the time is up, have students close their eyes so they can't see one another's response. Have students raise their hands if they counted 16 or less squares then tell them to put their hands down. Ask students to raise their hands if they counted 17, then 18, etc. until everyone has raised their hand. Students responses will vary between 16 and 30. Now tell students to open their eyes so that they can see how the results turned out. Begin going through the numbers again as you did before and have students stand when you reach the number where they raised their hand. (i.e. “all those that counted 16 or less stand up and remain standing. Now all those that counted 17 stand up etc.” until everyone is standing) Reveal to students that there are 30 squares that can be counted. Show the grid again and allow them to observe for it a few moments to see where they may have missed some squares.

Demonstrate how to find all 30 squares: (the PowerPoint slides will animate to show the following options)

- There is one large square bordering all the squares.

- The smallest squares add up to 16.
- The squares consisting of four small squares add up to 9.
- The squares consisting of nine small squares add up to 4.

Processing the Experience:

- Why didn't everyone see the same number of squares at first?
- What did you think when you found out there were 30 squares?
- What helped you to see more squares the second time you were shown the grid?
- How can looking at challenges differently give us more options?
- How else does this activity relate to Flipping the Switch?
- How does knowing that you have a resilience switch give you an advantage?