

One Square Inch

This activity helps focus students' attention on what is often an unseen world: the world in miniature. Students will choose a small area of study to observe both closely and deeply. Using a tool which they create, children will notice textures, depth of color, and tiny structures, thereby discovering the complexity of objects and environments they may never have noticed.

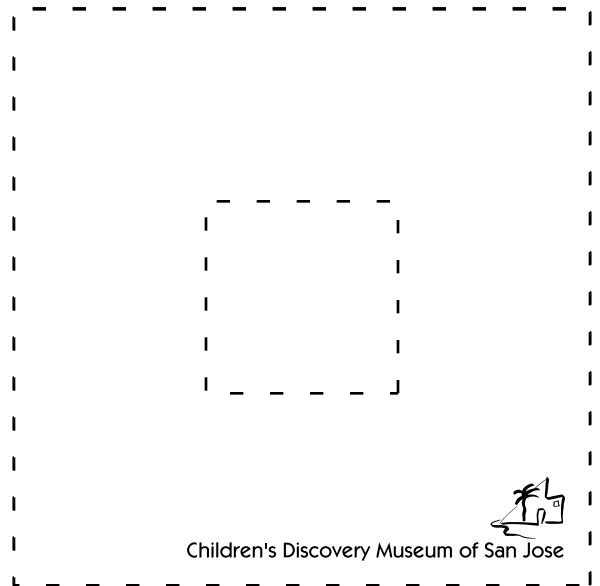
What You Need:

for each student:

- Copy of the One Square Inch Template Form (pictured here); if possible, copy this on cardstock, rather than on paper for durability
- white paper
- a drawing tool: colored pencils or crayons
- a hard surface to draw on

for the group:

- scissors to share



To Get Ready:

This activity works most effectively outside where students can choose to observe a natural environment, including plants and insects. Scope out an area near your school which might provide ample space for your class.

If you plan to conduct the activity indoors, consider gathering some interesting textures and items, such as fabrics, leaves, or sand, to place around your classroom.

If you wish to speed up the activity time, cut out the templates for your students ahead of time.



To Start, Ask:

Have you ever looked very closely at a tree trunk? What does it look like? What colors do you see? What is the texture? Have you ever noticed the middle of a flower? What shapes do you see there?

Now, Try It:

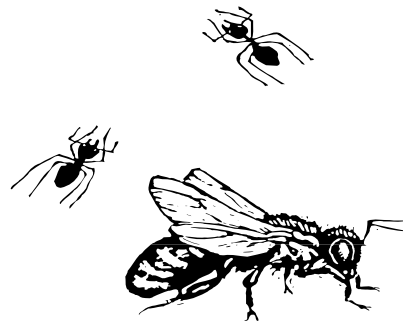
- Pass out scissors and copies of the template so that students can create their own observation tool: the One Square Inch tool.
- Pass out the paper, colored pencils or crayons, and encourage students to consider what they might choose to observe closely.
- If you have planned to do this activity outside, take the group out, and encourage students to choose a site for exploration. If you'll stay inside, invite the students to look at their familiar classroom in new ways.
- Ask students to focus their attention on something specific by placing their One Square Inch tool over the object they would like to discover more about. They might look at a leaf, a portion of sidewalk, a sign, or some grass.
- As students are observing, ask them questions about the things they are observing. They may be surprised to find that there are many shades of green in a single leaf, or that the playground asphalt has flecks of silver in it. They may find an insect crawling across their one square inch if they observe long enough.
- Ask students to create drawings of the environment they see through the one square inch tool and to write about what they have observed. The drawings and writing together are similar to the field journals which scientists use to record their findings.



Ask Students Again

When you gather back in the classroom, find out about what they saw.

What different textures did you see? Were you surprised by anything that you saw? How is what you did today similar to what scientists do in their work?



Scientist Spotlight:

Entomologists are scientists who study insects. While entomologists probably use more sophisticated tools than a One Square Inch tool, they also spend a lot of time in the field observing insects as they move around their environment.

Assess What Happened

The pictures and observations created for this activity can be added to students' scientific field journals.

What surprised you most about what you saw? Why? How did the One Square Inch tool help you in your observations?

