**NSTA 2020**

~Practical art exercises that inform the integration of science and art education~

Please credit Sally Bensusen for any public use of this material

Observation exercises for everyone

<table>
<thead>
<tr>
<th><strong>Part A: Speed Dating with Toys</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This is useful in helping overcome the internal critic in drawing (mapping) task. The object is to allow just enough time for the participant to consider the most prominent feature of the object in front of him and then move on. There’s not enough time to be critical of the result. It’s not about making pretty pictures and there is no “right” answer.</td>
</tr>
</tbody>
</table>

1. Have a collection of small, unfamiliar objects available (Cheap toys from a party store are good).
2. Arrange groups of 4 students each to share a common table.
3. Hand out one toy to each table, each table receiving an entirely different toy.
4. Instruct all the students to draw this object for 30 seconds.
5. At the end of 10 seconds, have the students at each table move to the next table, where there’s an entirely different toy. (You will need to wait for everyone to move and settle in.)
6. Do this 5 – 8 times.

**Questions:**
- Which objects do you recall?
- What one important detail about one of those objects can you describe?
- Can you remember others?
Part B: Reverse Pictionary

1. Break up into groups of 4-5 people.
2. Delegate one person to be the “Pencil Pusher.”
3. Hand out a photo of an object to the other three people. They must not share the photo with the Pencil Pusher!
4. Those three people have to describe the object to the Pencil Pusher without naming the object. The Pencil Pusher must draw that object based on what is described. The team has 3 minutes to accomplish this.

Questions:
- How would you rate your success during this exercise?
- What happened to keep you on track?
- What got in the way?
- How could each of you have improved the outcome in this game?

Part C: Leaf Exercise

Leaves are simple and readily available. Leaves are also tempting: will a participant draw a leaf that he thinks he “knows,” or will he draw the actual leaf in front of him? You can also use other types of objects: different apple cultivars, for instance, with their different shapes and surface markings.

1. Hand out to each participant 2 leaves from 2 different tree species. Hand out a few “trick” pairs using leaves from the same tree.
2. Have the participants draw or produce a “map” of their 2 leaves in the next 15 minutes.

Questions:
- Did the participants pay attention to the differences in venation, lobes, hairs and any other details of the leaves they have in front of them.
- Do some participants draw what they think a leaf looks like, rather than observing the actual leaves they’ve been given?

Try some of these yourself. Gather a few other art and science educators to test them out. Perhaps you’ll discover things about how to see that would be useful for your students (or yourself) in the future.

Make it a practice for art and science students to draw from nature early in life. Encourage students (and their teachers) to keep a field notebook or small sketchbook to document all kinds of subjects throughout the year. Have them make entries every day, for both drawing and taking written notes. Students can discover a new way of seeing the world and learning how it works through observational drawing.

Put some STEAM in that STEM engine. We need more Leonards in the world!