RAFT IDEAS

Topics: Logic, Problem Solving, Geometry, Spatial Thinking And Persistence!

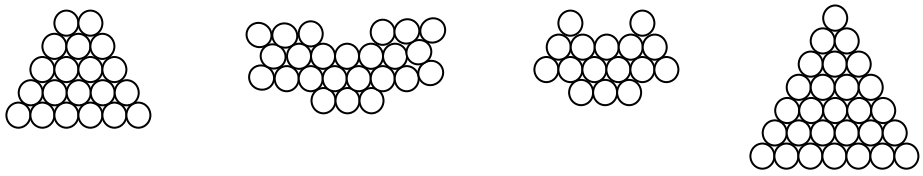
Materials List

- ✓ 44 identical corks or similarly shaped objects.
- ✓ Hot glue gun and hot glue sticks

This Activity can be used to teach:

- Problem Solving (CA Math Standards: all grades, Mathematical Reasoning)
- Investigation and Experimentation (Scientific Thought Process) (CA Science Standards: all grades)

What (shapes) can it become?



What interesting shapes can be formed using identical units of 4 corks each?

Assembly

1. Glue pairs of corks together along their lengths. Make 22 pairs (figure 1).
2. Glue two of these pairs together on a flat surface to make the Cork Unit shape (figure 2).
3. Repeat until you have 11 sets of the Cork Units.

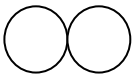
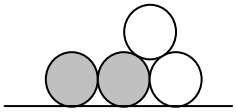


Figure 1



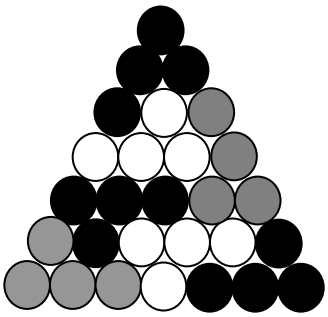
Cork Unit
Figure 2

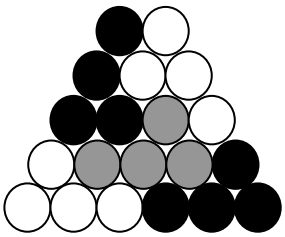
To Do and Notice

1. What shapes can be made with 4, 5, 6, …or 11 of the Cork Units?
2. Can students create puzzles for other students to solve?
3. Can students find alternative solutions?
4. Students can use the circle grids on the back of this page to record shape challenges and solutions.

The Content Behind the Activity

Repeating units form the basis of many natural structures. To solve and create these puzzles the Cork Units may need to be rotated and/or to be flipped.

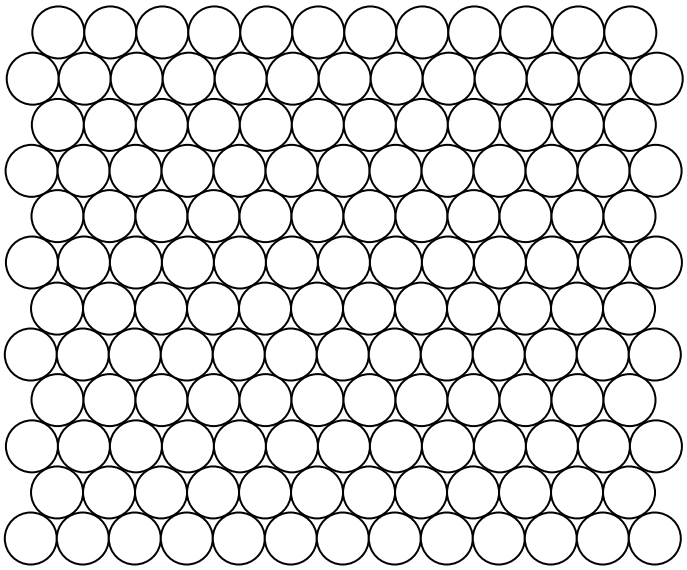


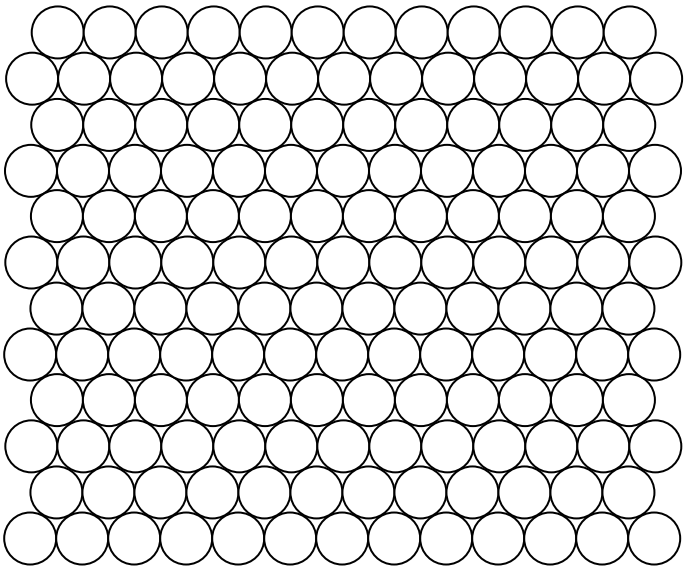


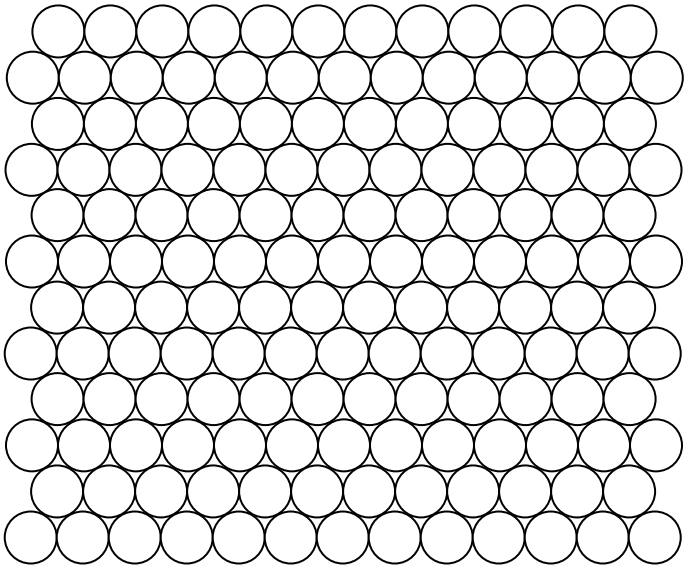
Web Resources - Visit www.raft.net/more for how-to videos and more ideas!

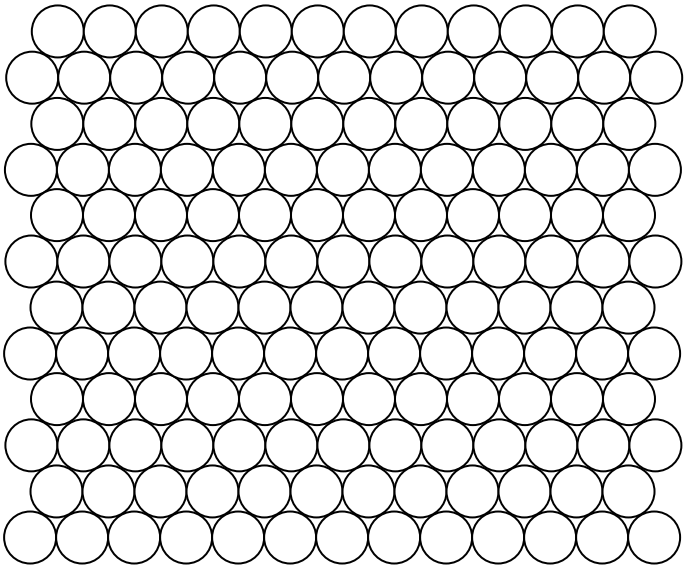
raft resource area for teaching
1355 Ridder Park Drive San Jose, CA 95131
www.raft.net

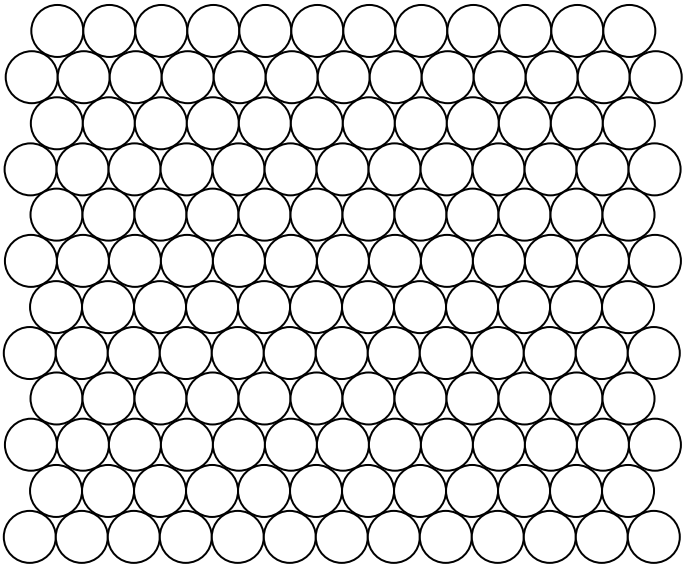
Designed and written by Michael Pollock (RAFT)

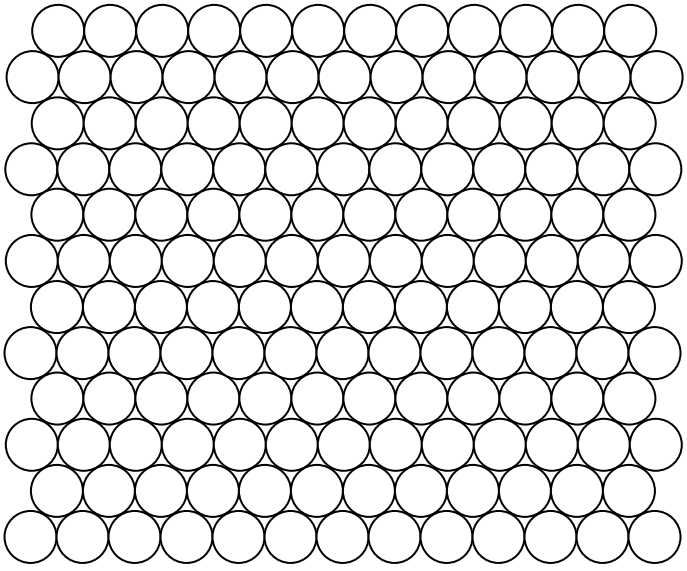












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