

Alien STINGERS

Classroom Activities Grades 4 - 6

A Classification: Sort 'Em Out... It's Sort of Fun

Materials: Tangible items with distinguishable traits (15-30 items), such as:

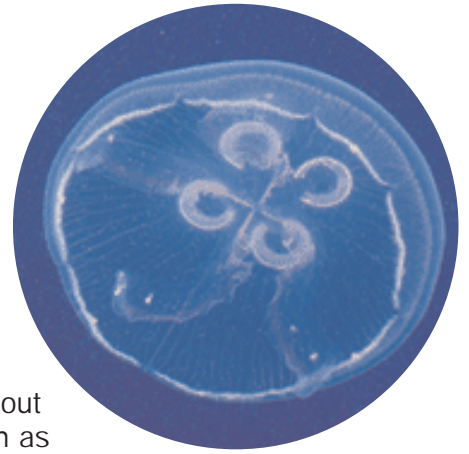
- Wrapped candies
(Children can then eat the "collection" following the exercise.)
- Buttons
(Each student may bring in a button or the teacher or parent may have a button collection.)
- Shoes
(Each student in the class contributes one of his or her shoes to the collection for the duration of the exercise.)

Methods:

1. Randomly arrange the items so the entire class can see them.
2. Ask two students to divide the objects into two categories, using a specific characteristic (e.g. color, shape, brand) that they secretly decide on between themselves.
3. Have the rest of the class try to guess the characteristic used to sort the objects based on their observations of the two groups (e.g., "well, all of the shoes in this pile are red..."). Note: although one group will be fairly uniform (all red shoes, all square candies), the other group may be more heterogeneous, having in common only that they do not possess the chosen trait (not red, not square).
4. When the class has discerned the guiding trait, assign each pile of objects to two new students, and repeat the process. Depending on the variety of items, this can be continued for several rounds.
5. Discuss scientific classification: Explain to the children that just as they used color, size, shape, etc. to place the items into categories, so scientists use many traits to recognize similarities among animals. Also, just as they were able to take the two original categories and divide them into smaller, more distinguishable groups, scientists classify organisms from big, wide groups (like "kingdom" and "phylum") down to narrowly defined groups (such as "class" or "genus"), based on details.
6. As an extension, ask children to list some traits they would use to classify animals into groups. Show pictures of animals, and have the children classify them according to the traits they have listed.

B.

Construct a Cnidarian



Materials:

- Pictures of and information about various types of cnidarians, such as corals, jellies, and anemones
- A variety of materials to use in construction of animals, such as plastic sandwich bags, ribbons, suction cups, balloons, latex gloves, clay, paper, and colored pencils

Methods:

1. Show students pictures of corals, anemones, and jellies. Tell them they are all related, belonging to the same phylum (cnidaria). Because they belong to one phylum, they share certain characteristics, such as radial symmetry (a body organized like spokes on a wheel), stinging cells, tentacles surrounding the mouth, and a single opening to the digestive system. Ask the children if they notice any differences among the animals. (They will probably mention the orientation of the tentacles.) Discuss the two basic body types: the free-floating medusa, with tentacles pointing downward, and the stationary polyp, with tentacles facing up. How do these body types affect locomotion, feeding, and general lifestyle?
2. Tell students that these basic body forms have evolved into many different species. Ask students to research a cnidarian, and then draw or build a model from clay or other materials. Have them label the mouth and tentacles, and write the name of the animal. They can also create an oral or written report about the life cycle, habitat, and adaptations of the animal.

