



Brainstorming

Brainstorming is an essential part of teaching creativity and problem-solving processes that form the basis for active learning. With younger children, it makes sense to compare a brainstorm to a rainstorm.

Can you feel and count the individual drops of rain in a rainstorm when the rain begins to fall? (Yes)

As the storm gets bigger and bigger, can you count the drops of rain? (No)

A brainstorm is like that too, only we are going to use our creative minds to think of many, varied, and unusual ideas; so many that we will hardly be able to write them down quickly enough.

There are four simple rules that help make the brainstorming process a peaceful and orderly one. Teach these "DOVE" rules to the students:

- D** Don't judge others' ideas—evaluation comes later.
- O** Original and unconventional ideas are encouraged.
- V** Volume of ideas—as many as possible in time limit.
- E** Everyone participates.

It is very common for students to run out of ideas in a short amount of time. This is called "hitting the wall." Help students keep thinking—the most interesting and unusual ideas often come after the immediate and obvious ones have been expressed. You may have a student read their list in order to help others start thinking of new ideas. Remind students that it is okay to "piggyback" on someone else's ideas. Often a really unique idea from one person can spark another good idea from someone else.

It is important in brainstorming to limit the time. A shorter time limit is better than one that is too long. One to three minutes is usually about right, occasionally up to five minutes might be needed. It is better to start with a short time and extend the activity than to have the students lose interest.

Brainstorming can be very useful when teaching students about creativity. Brainstorming new and crazy uses for an object teaches students to be flexible in their thinking. The following examples work well:

- Brainstorm uses for a pencil.
- Brainstorm uses for a set of keys.
- Brainstorm all of the things that would be in the perfect classroom.

Brainstorming at the beginning of a lesson is a good way to introduce the lesson and assess what students know about the topic, as well as being a method of channeling their thinking in a specific direction.

Depending on the topic of the lesson, brainstorm attributes or facts that relate to the lesson:

- Brainstorm things that are red (or read).
 - ... things in your home that are man-made, things that are natural.
 - ... things in the classroom that are geometric shapes.
 - ... things that live in the ocean, names of birds or flowers, insects, folktales, etc.

Brainstorming is also very effective as one of the steps in problem-solving and solution-finding situations:

- What problems might you have if you came home from school and were locked out of the house?
- What might happen if an earthquake destroyed your city?
- What are a variety of ways that you can prepare for an exam?
- What are some things you can say to friends who want you to smoke, drink alcohol, or take drugs?

Brainstorming can also be used to help children evaluate an idea. For example, brainstorm all of the possible consequences:

- What if a light bulb that lasted 20 years was invented?
- What if the sun did not shine for a year?
- What if students were required to wear school uniforms?
- What if school buses were allowed to have advertising on them?
- What if you ran for school president and won?
- What if your mother let you eat all of the junk food you wanted?

After many ideas have been generated, use those ideas to advance the objectives of the lesson. For example, if you brainstormed the consequences of eating all of the junk food you wanted, a lesson on nutrition might follow.

Evaluation of brainstormed ideas should not happen during the brainstorming process. If someone says *"That won't work"* or *"That's a stupid idea,"* then ideas are squelched and some students will stop participating. If evaluation is a step you want to use, it comes later after all ideas have been freely given.