

MAKE A MODEL COMET

Materials needed:

- one cup of water
- a few ice cubes
- two spoonfuls of sand or dirt
- glass cleaner
- corn syrup or corn starch or pancake syrup
- a piece of broken up charcoal or aquarium charcoal (optional)
- plastic trash bags, plastic grocery bags or large ziplock bags
- spoon
- mixing bowl that is okay to get dirty
- gloves (optional)
- table
- plastic table cloth (sometimes science can be a bit messy so be sure that when doing experiments you are using a space that is okay to be a bit messy in and taking precautions, like putting down a table cloth)

Now that we have all our materials let's start experimenting.

Step 1: Cut open one plastic bag trash or grocery bag and use it to line your mixing bowl.

Step 2: Pour water into the mixing bowl.

Step 3: Add sand or dirt and stir well.

Step 4: Spray in a little glass cleaner, this will be the ammonia for the comet.

Step 5: Add some organic material: a spoonful corn starch, or some syrup, or both.

Step 7: Add in some carbon by adding the charcoal. If you don't have any charcoal take a deep breath and exhale into your mixture. Remember when we breathe out we are breathing out carbon dioxide.

Step 8: Add some ice cubes, remember, comets are cold. It is very cold in space.

Step 9: Stir well and mix everything up.

Step 10: Pour your mixture into a ziplock bag.

Step 11: Place the bag with your comet mixture in the freezer and wait for it to freeze solid. The waiting is the hardest part.

Step 12: Clean up! You always want to be sure that when you make a fun science mess you also clean up the fun science mess.

Step 13: Take your comet nucleus out of the freezer and take a look at it. It will be lumpy with different chunks of material in it. A real comet nucleus is not smooth and round either.