

SUN PRINTS

LEARN ABOUT DIFFUSION

What you'll need:

- Paper
- Watercolor paint
- Scissors
- Black construction paper
- Paintbrush and water

How to do the project:

1. Prep your paper (watercolor paper or cardstock works best) by taping it down to a plastic tray or cookie sheet tray.
2. Cut out different shapes from your black construction paper. Get creative! See what different shapes you can make.
3. Paint your prepared piece of paper with a thin layer of water. This will make your watercolor paint spread easier.
4. Add watercolor paint! Notice how the paint will move from an area of higher concentration (a drop of paint) towards areas that are wet but unpainted. Experiment adding more paint or water to different areas.
5. Dip your black paper shapes completely in water, then lay them on top of your painting.
6. Put your painting in a sunny spot to dry. When it is completely dry, peel off the black shapes to see the design you've created!

What to expect:

The black construction paper blocks the sunlight causing the surrounding exposed paper to dry faster. The watercolor paint will move from an area of high concentration underneath the black paper to an area of low concentration of already dry paper and paint. As a result, the areas underneath the black shapes will be much lighter than the surrounding areas. Read more below about the **science** behind why this happens!



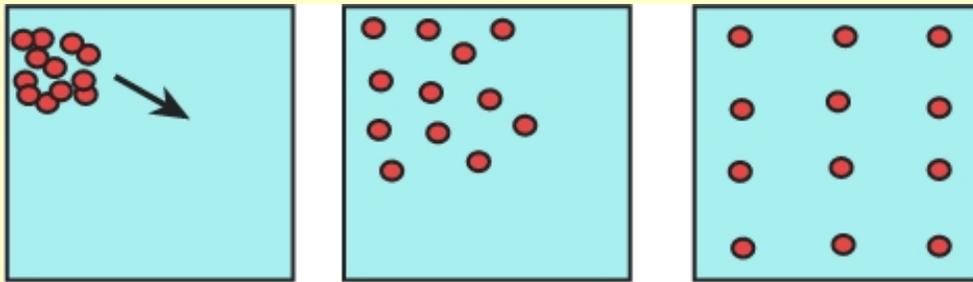
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How it works:

Diffusion is a process where particles move from an area of high concentration (where there are many of them) to an area of low concentration (where there are few of them). Imagine a group of people all bunched together who then spread out from each other so they have room for themselves!



With your watercolor paint, the paint moves from an area where there is more paint to where there is less paint. You see this when you are painting and in the drying process too! Double diffusion!

Some other examples of diffusion that you might see around you:

- a sugar cube dissolving in water
- food coloring dropped into a cup of water
- a smell of food wafting from an oven to fill a room

Can you think of any other examples of diffusion?



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