

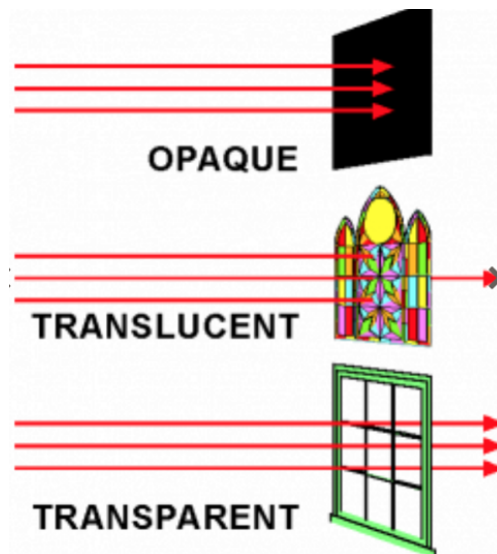
Properties of Glass – Transparency vs. Opacity

PART 1: Transparency vs. Opacity

It may be easy to forget about all of the uses of glass in everyday life because of one of its most important features: It's transparency! Glass is used for things like windows, eyeglasses, picture frames, lenses, and test tubes because it is important to see the items on the other side of the glass.

Glass is a transparent material which means it lets light pass through it and allows us to have a clear view of the objects on the other side. **Check out the windows in your home.** Notice how you can see through them, almost as if there wasn't a completely solid material in front of you. Now Imagine if your windows were not transparent, like the walls in your house. You wouldn't be able to see outside or have light shine in to your house.

Materials that you cannot see through and don't allow any light to pass through, like the walls in your house are called opaque. Sometimes materials might allow some light to pass through and not allow you to see on the other side. Try holding up a piece of paper toward a light. Notice the light shines through the paper, but you cannot see things clearly on the others side. This is called translucent.



Sometimes windows are made of translucent glass to allow light to shine through but allows for more privacy. Can you think of any reasons or places you would use or find transparent glass? Translucent glass? Opaque glass?

If you want to check out HOW glass is transparent watch this video:

<https://www.youtube.com/watch?v=VwRLt6jgdM>

Activity: Transparent/Translucent/Opaque Collage

Here is what you will need for your collage:

- Paper
- Glue
- Scissors
- Various materials from around your house like paper, aluminum foil, magazines, wax paper, plastic wrap, tissue paper, construction paper etc.

What to do:

1. Find some household materials with different translucencies such as paper, wax paper, parchment paper, recycled cereal boxes, plastic wrap, and/or aluminum foil.
2. Try holding your various materials up to a light or to a window. Make notes of what you can see through and what you cannot.
3. Use these materials to create your own composition/collage using various translucencies.

Share Your Collage

Post a photo of your collage! Tag us on Instagram, Facebook, or Twitter @pghglasscenter and we might share your creation.