Germs

Glitter Germ Experiment

*Items Needed:*
- Enough lotion or hand sanitizer to cover your child’s hands
- A pinch or two of glitter (use care not to get into eyes)
- Piece of white paper
- A few washable plastic toys – ie. lego, play dishes, etc.

*I also have heard that you can use cooked rice but I would try without the lotion/sanitizer. If you try it this way, please let me know if it works.*

*Directions:*
Mix glitter and lotion together in a small bowl. Have your child dip hands into glitter mixture and rub hands together. Explain that you are pretending that the glitter is a germ. The difference is that we can’t really see germs.
Once the lotion/sanitizer part is “dry” and just the glitter remains, press hands onto paper so some glitter remains on the paper. Next, shake hands with your child, have them touch a doorknob, and play with toys. Observe the glitter left behind. Explain that germs are left on things we touch.
Now try rinsing hands without soap. The glitter should stick. Add soap and have your child wash hands until the glitter disappears. It takes longer than you think. (Try singing the ABC song. That’s how long we should scrub.) Remind your child to scrub the tips of fingers and in between them too. The backs of our hands are also many times forgotten.

*What We Learn:*
Even though we can’t see them, germs spread quickly from person to person. Germs can also spread to people through objects we touch. Washing hands the right way is important to prevent the spread of germs and keep us healthy.

Washing Germs

*Items Needed:*
- Toys from experiment above and any additional plastic toys
- Dish soap
- Sink or tub of water
- Sponge
- Towels - to clean up spills

*Directions:*
Make a sink or tub of soapy water and let your child scrub away at the toys from the above experiment. (This is a good time to get other toys washed too!) If you have little porcupine or bouncy balls, throw them in and have your child pretend they are germs.
**Blow Paint Germs**

*Items Needed:*
- Water color paints or make your own with food color and water
- Paper
- Pen or permanent marker
- Straw (optional)
- Eye dropper (optional)

*Directions:*
First, trace your child’s hands on the paper. Then, have your child drip small drops of paint on the paper. Next, have your child blow the paint with the straw to make the paint spread.

*What We Learn:*
This is what happens when we don’t cover our sneezes and coughs. Germs spread through the air. It also makes a good argument for washing our hands after using the bathroom and blowing our noses on tissues.

**Apple Slice Experiment**

*Items Needed:*
- 2 apples
- 4 clear sandwich size baggies
- Tape and pen for labeling
- Hand soap

*Directions:*
Label bags control, dirty, quick wash, and clean.
Adult should wash hands thoroughly before cutting both apples in half, touching only the skin of apple. Slide one apple half off the cutting board into the bag labeled control. Explain that this half was touched as little as possible and no germs were added to it. You will compare the other halves to it to see the difference between them and a normal rotting apple. Next, ask your child to rub unwashed hands all over another apple half and place in bag labeled dirty. Then, have your child quickly wash and dry hands and rub hands all over another apple half. Place this half in the bag labeled quick wash. Last, have your child wash hands for at least 20 seconds, remembering to get the tips and between fingers and the backs of hands. Dry on a clean towel. Rub hands on last apple half and place in bag labeled clean. Close all bags and place on shelf. Observe the apples over time. The apples will all turn brown but give them time to produce mold.

*What We Learn:*
There should be an obvious difference between the apple labeled dirty and the control apple. Hopefully, the control apple and the clean apple are similar. This should reinforce the importance of washing hands thoroughly.
Growing Germs on Bread

*Items Needed:*  
Bread slices (Homemade bread definitely works faster in this experiment. Store-bought will take 2-3 weeks to mold. Plain, white bread is best – nothing fancy.)  
Clear sandwich size baggies  
Permanent Marker or tape and pen

*Directions:*  
Brainstorm what you think are the germiest places in your house. You are going to use bread as miniature petri dishes. Use the bread to wipe the germiest surfaces of your home. You do need to be gentle so you don’t turn the bread to crumbs but wipe several times over the surface of the bread. After wiping, immediately slide the bread slice into a plastic bag and label where the sample was taken. Hands should be washed before and after wiping surfaces. (Before washing, get a sample from unwashed hands.) Place the slices in a window (speeds up the process) or some other place so they are the same basic temperature and exposed to the same amount of light. Watch for the mold to grow! When experiment is complete, do NOT open bags. Dispose in garbage.

*Words of Experience:*  
We do this activity at school and the preschoolers are always surprised at the outcome. They all think the bathroom is the dirtiest place. After we brainstorm, I pair them up and they choose a different place to wipe with the bread. Let me give you some of the best…

<table>
<thead>
<tr>
<th>Floor around toilet</th>
<th>Light switches</th>
<th>Cough on bread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet seat</td>
<td>Door handles</td>
<td>Carpet</td>
</tr>
<tr>
<td>Handle of soap dispenser</td>
<td>Table tops</td>
<td>Computer keyboard</td>
</tr>
<tr>
<td>Water faucet handles</td>
<td>Pencils, scissors</td>
<td>Phone</td>
</tr>
<tr>
<td>Toys</td>
<td>Hands</td>
<td>Shoes</td>
</tr>
</tbody>
</table>

The grand winner every year… bookbags! This sample always grew the most colorful mold and it grew faster than the other samples. It even grew faster than when I had someone with a cold cough on the bread! The water faucet and soap dispensers are usually tied for second (even though we wipe them down daily). Let me warn you, you will not look at your child’s bookbag the same way ever again! What’s worse, I’ve heard the same thing about purses!

*What We Learn:*  
All surfaces have germs. Don’t place bookbags on tables or counters where food is prepared or eaten. We need to wash, wash, wash our hands! Use your arm to turn off the water and use a paper towel to open doors in public restrooms. Take time to wash surfaces.
Spray Bottle Germs

*Items Needed:*
Spray bottle
Water
Tissues

*Directions:*
Have your child observe how far water spreads when a spray bottle is squirted. Explain the same thing happens when we cough or sneeze. Next demonstrate by placing your arm or a tissue in front of the spray bottle when you squirt it. Encourage your child to cover coughs and sneezes with an elbow.

Make Germs Scatter

*Items Needed:*
Bowl of water
Pepper
Hand soap

*Directions:*
Sprinkle a small amount of pepper into the bowl of water. Observe how the pepper floats on the surface of water. Explain that this is similar to germs on our skin. Have your child stick their finger in the water and pull it out. Nothing happens. There might even be a piece of pepper stuck to the finger. Next, squirt a small amount of hand soap on your child’s finger or dip it into the soap. Watching carefully have your child stick finger in the center of the bowl. In an instant, the pepper scatters to the sides of the bowl.

*What We Learn:*
Just like the pepper, germs don’t like soap and they scatter. This stresses the need for soap. Again, encourage your child to wash hands with soap for at 20-30 seconds, the time it takes to sing the ABCs.