

## Growing what you cannot see – Video lesson activity

### Materials:

- 1 ½ packet unflavored gelatin
- 1 tsp bouillon granules or one bouillon cube (beef works well)
- 2 tsp sugar
- A little less than 1 cup water
- clear disposable plastic container with lid
- cotton swabs

You and your child can make this simple homemade petri dish to watch bacteria and fungi grow. This is an opportunity to begin with something invisible and over the course of the week, watch it become visible.

First, mix the growth food. In a saucepan, stir together the water, sugar, gelatin and bouillon. Bring the mixture to a boil, making sure it all dissolves. Allow it to cool for 15 minutes.

Pour the mixture into clean, clear plastic containers. Make at least about a ¼ inch thick layer. Cover the containers loosely with lids and allow the mixture to cool completely. Store them in the refrigerator until ready to use. When you are ready to culture your gelatin, gently wipe the condensation inside the lids and put them back on.

Decide which surfaces you would like to swab: it is good to do several so that you can compare the kinds of bacteria and fungi to be found in different locations. Suggestions: doorknobs, kitchen sink, cellphone, piano keys, etc. You can leave one open in the air for a few minutes to catch ambient bacteria and fungal spores. Label your containers so you know which sample belongs where.

Next, collect bacteria and fungi by rubbing a clean cotton swab on a surface you've chosen, then gently swipe the swab across the surface of the growth medium in the matching container. Continue until you have swabbed them all.

Replace the lids and set the containers out of the way on the counter-top for several days. You will begin to see growth after two or three days. Enjoy watching your samples grow and be amazed at the variety of life living on your household surfaces! These molds and bacteria are most likely not harmful, but do not handle the growth and after about a week throw away the containers.