

# SCIENCE

## FROM HOME



## Microplastic Filtering

People use a lot of plastic, and not all of it can be or is recycled. This means that sometimes plastic ends up in our water systems and can cause issues in our food, in our water and for wildlife. Plastic debris can come in all shapes and sizes, but those that are less than five millimeters in length (or about the size of a sesame seed) are called “microplastics.”

### Know before you begin

- This activity can be done inside or outside, but make sure you are able to contain the possible mess!
- All supplies are easy to find or substitute
- Adult supervision is recommended
- Please choose a safe space for this activity

### Materials

- Tea (either loose leaf or cut out of tea bag)
- Coffee grounds
- Colander, Strainer, sieves of different hole or mesh sizes
- Coffee filters or cheese cloth
- Water
- Bucket or plugged sink to pour water into

### Instructions

1. Set the different strainers out and order them from the strainer with the largest holes to the strainer with the smallest holes. Then, place the coffee filter or cheesecloth next to the smallest strainer.
2. Mix some of the coffee grounds or loose-leaf tea into the water. The coffee grounds or loose-leaf tea will represent microplastics for this activity.
3. Hold the biggest strainer over the bucket or sink. Pour the water with the coffee grounds or tea into the strainer. What happens to the coffee grounds or tea?
4. Collect the water with the “microplastics” in it.
5. Hold the next smallest strainer over the bucket or sink and pour the “microplastic” water through. What happens?

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6. Repeat with all strainers and the coffee filter/cheesecloth.

What happens to the “microplastics” in the activity when you put them through the strainers? They go through many different sizes, or the water has changed color from the tea/coffee. This shows how microplastics can’t always be filtered out of the water system and how even if you filter some, there is still a chance some get through.

### References

[What are microplastics?](#)