

# Speck Monitor Sample Experiments

## Bedroom

Set up the Speck near your bed. Leave it running for at least an hour to get a baseline reading of the particle concentration in the room. How do the numbers change when you lie down? Bedding can collect many different types of particles, and using the bed can disperse particles into the air. Try different combinations of bedding and air flow (using a fan, opening windows and doors) to see which variables change the readings.

## Kitchen

Set up the Speck near your stove top. Track the readings as you cook meals. What cooking temperatures and foods cause changes to the readings? How does baking a dish change particulate readouts when compared to frying? If you have a range hood, examine how the readouts change while the fan runs. Does the ventilation hood effectively route air outside?

## Cleaning

Place the Speck in the room you plan to clean. How do the readouts change when you run the vacuum? What happens when you dust particular surfaces? How do various cleaning products affect the readouts? How long does it take for a reading to stabilize after cleaning? If your vacuum has a HEPA filter, how does that affect the Speck reading?

## Air Conditioners, Fans and Windows

Test various room conditions by placing the Speck near the vent, the fan or an open window. (Be careful not to place the Speck in direct sunlight, which will affect the reading). Test various conditions by turning on the A/C, a fan or opening the window. Test the Speck in various locations in the room to identify "hot spots." If you see dramatic changes, consider using a HEPA filter on your HVAC system and testing the changes.

## Selected Reading

For more ideas of how to use the Speck, please visit [www.specksensor.org](http://www.specksensor.org).

All of the following items are available for checkout from the Corvallis-Benton County Public Library.

### For everyone:

- *Citizen Science Guide for Families: Taking Part in Real Science* by Greg Landgraf

### For adults:

- *The Incidental Steward: Reflections on Citizen Science* by Akiko Busch
- *When Smoke Ran Like Water: Tales of Environmental Deception & the Battle Against Pollution* by Devra Davis
- *Slow Death by Rubber Duck: The Secret Danger of Everyday Things* by Rich Smith and
- *Home Allergies: Don't Let Your Home Make You Sick* by William E. Walsh
- *Fresh Air for Life: How to Win Your Unseen War Against Indoor Air Pollution* by Allan Calvin Somersall
- *The Eco House Ideas for a Healthier Home: Indoor Air Quality and Building Materials* [DVD]

### For children:

- *Every Breath We Take: A Book About Air* by Maya Ajmera
- *Protecting Earth's Air Quality* by Valerie Rapp
- *Peter, the Knight with Asthma* by Janna Matthies

## Share your stories

Share your stories about what you've learned using your Speck by tweeting us at @corvallislib and @SpeckSensor or sending us a message to [askalibrarian@corvallisoregon.gov](mailto:askalibrarian@corvallisoregon.gov) or via Facebook at @cbcpl. Tag your stories with #cbcplspeck.