



What do ants like to smell, taste, or walk on?

You need: Three chamber-nest including Temnothorax ants, spring steel tweezers, brush, Vaseline, arena, different substrate material, different spices and herbs, different foods, magnifying lens / stereo microscope

1. Take off the upper slice of the arena.
2. Decide between a) substrate material, b) smells, or c) tastes.
 - a) **Substrate material:** Put one substrate material (e.g., soil, sand, sandpaper, or Vaseline) in each of the four corridors. Avoid cavities between the slices of the arena!
 - b) **Smells:** Put the same amount of spice / herb (e.g., rosemary, cinnamon, thyme, lavender) in each of the four corridors. Avoid cavities between the slices of the arena! Clean carefully after each experiment!
 - c) **Tastes:** Put the same amount of foods (e.g., chicken, tuna, peanut butter, lemon) in each of the four corridors. Avoid cavities between the slices of the arena! Clean carefully after each experiment!
3. Transfer ants into the arena:
 - Take one or two worker ants out of the three chamber-nest (or the inlay nest) and place them in the middle of the arena.
 - Lock up the arena immediately (upper slice). If there are ants on top of the middle slice, use the brush to place them in the middle of the arena.
4. Set up a time, e.g. every two minutes, to document the number of ants in different places of the arena. Document your experimental design in a drawing. Document your results in a table (M1). If the result is unclear, extend the time and continue counting.
5. Document your results with the aid of bar graphs.

M1: Structure of your table

Number of ants	<i>Corridor A</i>	<i>Corridor B</i>	<i>Corridor C</i>	<i>Corridor D</i>
<i>After 2 minutes</i>
<i>After 4 minutes</i>
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