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You will find all the materials for the pitfall trap experiment in the kit. All you need to find yourself is a pencil, some bait, a cell phone and a small shovel. Then you are ready to begin.

CHECK THAT YOU HAVE EVERYTHING YOU NEED

From the kit:

- 1 above-ground pitfall trap
- 1 extra trap container to help install the traps
- 1 underground trap (with holes)
- 1 datasheet
- 1 sign 'Laufendes Experiment' (Experiment in progress)
- 1 skewer
- 3 toothpicks
- 1 set of forceps
- 1 microclimatellogger & metal rod to make a hole for the logger (To measure the temperature in and just above the ground; Attention - please treat the logger with care)
- 1 ziplock bag

Furthermore:

- 1 cell phone with a weather app and camera
- 1 shovel
- 1 pencil
- Some bait, e.g. a small piece of apple or some marmelade

7. CLEAN UP

- Wrap the containers in some toilet paper or tissue and place them in a ziplock bag.
- Clean the microclimatellogger and place it in the ziplock bag together with the animals.

8. ENTER YOUR FINDINGS ONLINE

- Go to www.mikrosafari.de and enter your findings. Then put your data sheet in the bag together with the animals and the microclimatellogger.

9. WAIT FOR THE RESULTS

- Scientists will analyse your findings and tell you the results. The scientists are looking forward to seeing what you have found. Thank you for your help.

THIS PROJECT IS SUPPORTED BY

CARLSBERG FOUNDATION

MICROSAFARI PITFALL TRAP EXPERIMENT



Deutsches Zentrum für integrative
Biodiversitätsforschung (iDiv)
Halle-Jena-Leipzig



PITFALL TRAP EXPERIMENT

In this pitfall trap experiment we want to understand how climate change and urbanisation affects insects and other soil-dwelling animals. In this part of the project you will first carry out a pitfall trap experiment in school and later at home. We want to know:

- Which and how many animals are there in your garden or back yard?
- How is this connected to urbanisation, air- and soil-temperature?

This information will help us understand how different species are adapting to current and future changes in climate and habitat.

In this experiment you will set up two different types of pitfall traps and leave them out for 48 hours. You might need help from your parents in order to find a good location for your experiment. Afterwards, you will bring the animals you caught back to school, where you will sort and count how many different species you have caught.

The experiment works best if it is a warm and sunny day without too much wind. However, the experiment can be carried out as long as it isn't raining heavily.

In this brochure you will find detailed instructions on how to carry out the experiment. On our website www.mikrosafari.de you can also find videos on how to do the experiment and you can read more about MikroSafari. There you will also find short stories, identification help and inspiration on how to explore nature- take a look!

We're looking forward to seeing what you find!

Thank you for participating in our science project. Have fun!

All the best –

Julie & the MikroSafari Team

1. PREPARE THE PITFALL TRAP EXPERIMENT

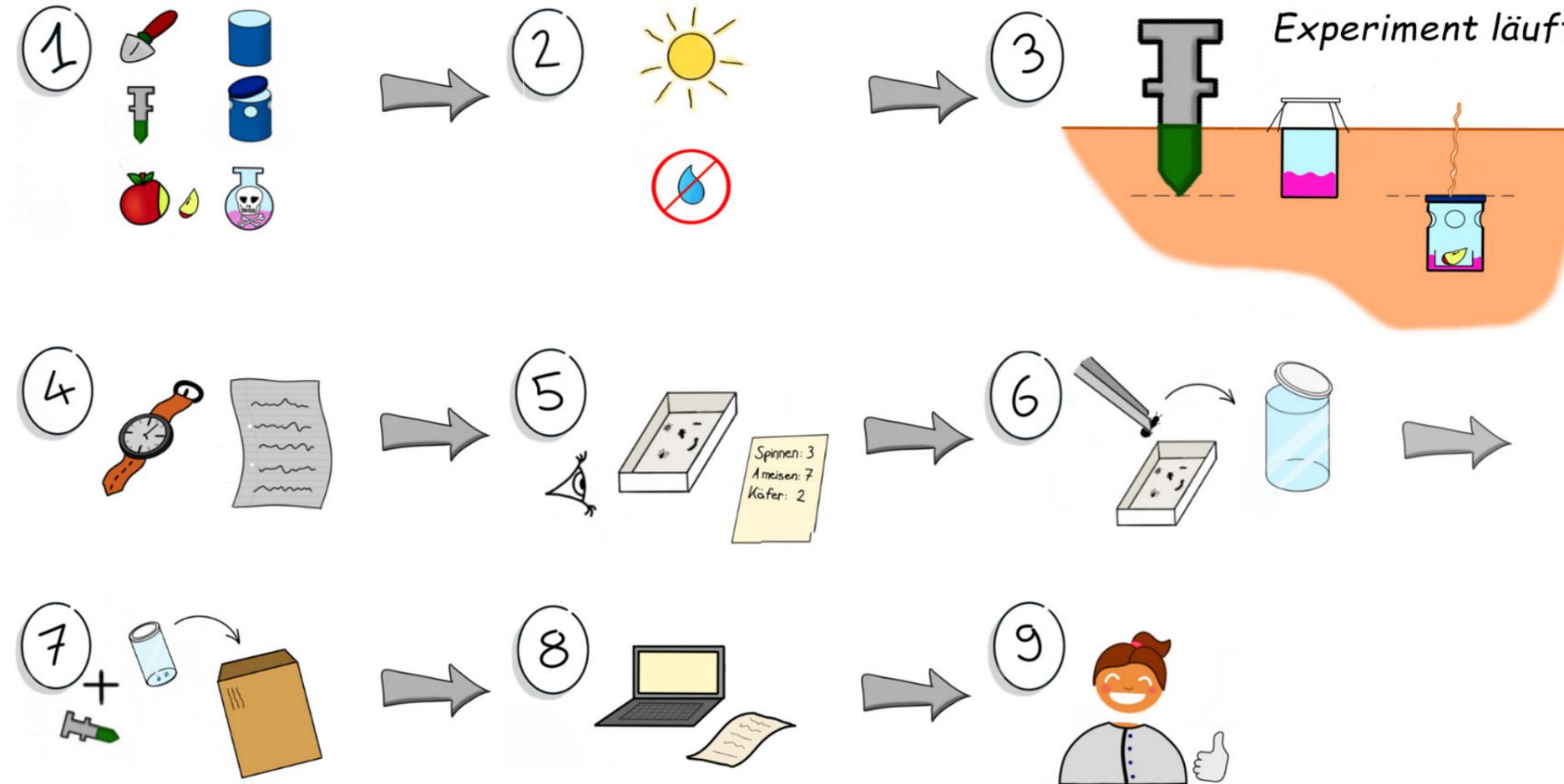
- Make sure you have everything that you need.

2. FIND A GOOD SITE FOR YOUR EXPERIMENT

- Where is the best location for your pitfall trap experiment? Look around. The site should be in a sunny location, if possible.
- Decide where you want to do the experiment and bring everything to the site.

3. SET UP THE EXPERIMENT

- Set up the microclimate logger by making a hole in the ground with the metal rod. Then place the climate logger in the hole. Make sure the entire green part of the logger is in the ground.
- Grab the two containers without holes and place them inside each other. Dig a hole in the ground and place both containers in it, so that the top of the container is exactly at ground level. Be careful when you put in the containers, so that soil doesn't fall in. When the trap is correctly placed, remove the inner container so that you leave a clean container in the ground.
- Pour propylene glycol into the container in the ground to a level of ca. 3 cm.
- Place the lid over the container so that there's ca. 2 cm between the lid and the container. Use the toothpicks to hold the lid up.
- Close by, dig a second hole (ca. 20 cm deep). Make sure the hole is big enough for the buried trap (the one with holes on the side and a string). Use the extra container to measure this.
- Fill the buried trap with propylene glycol to a height of ca. 3 cm. Place some bait in the middle and close the lid tight. Be careful not to tip the contents. Bury the underground trap in the second hole. Make sure the string is above ground so you can find your trap again.
- Use the skewer for the „Laufendes Experiment“ sign and place it near your experiment.



4. WRITE DOWN YOUR PROJECT DETAILS IN THE DATA SHEET

- Give your experiment a cool name.
- Note down the date and the time you began the experiment.
- Write down the address or the GPS-coordinates. You can get the GPS-coordinates from your phone or you can wait with this step until you enter your data online.
- Describe the surrounding habitat (e.g. sunny flowerbed beneath a hedge, or something like that).
- Note down the weather conditions. You can get the air temperature from a weather app on your phone or use a thermometer.
- Take a photo of your experiment.
- Leave the traps for 48 hours.

5. DIG UP THE TRAPS AND ANALYSE THE DATA (48 HOURS LATER)

- Note down the time you dug up the traps in your data sheet.
- Dig up the traps.
- Pour the contents of the underground trap into the extra container. Write on the labels which container is the underground trap and which is the above ground trap. Write your Mikro-Safari ID on both containers.
- Make sure the lids are securely fastened.
- Bring both containers, your data sheet and the microclimate logger to school with you.
- Together with your teacher and classmates, count how many animals you caught. Write it down in your data sheet. If you want, you can try and determine how many types of animals you've caught. You can find identification help on our website www.mikrosafari.de. How many ants are there? How many beetles?

6. PACK EVERYTHING UP

- Put all the animals back in the containers. Make sure you put them back in the right container.
- If necessary, add more propylene glycol to the containers.