LET'S GET STARTED

MATERIALS

- Flat popsicle sticks (± 30 pcs.)
- Pens
- (fabric) scissors
- Impact worksheets (printed) (3x)
- Redesign worksheets (printed) (1x)
- Bright coloured yarn (± 5m)
- Mini clothespins (± 30 pcs.)
- (masking)tape

DEFINING ACTORS

- Consider the (potential) context of your design (e.g., production area, use area, after-life area). Visit this place to execute the activity. Respect the more-than-humans encountered during this activity.
- Which more-than-human actors may be impacted by the design...
 - ...during the production process
 - ...during the product use
 - ...during the afterlife

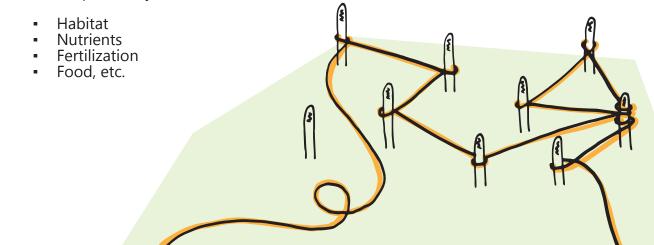
Try to ideate different type of actors. Make sure you represent both abiotic (e.g., sun) and biotic factors. The latter should consist of different trophic structure layers: primary producers (plants), consumers (e.g., animals, bacteria), detrivores (e.g., worms), and decomposers (fungi).

Put masking tape over the edge of a popsicle stick to create space for writing on both sides, and take this off after the activity for reusability of the sticks. Write each actor on both sides of the stick on the tape. First ideate yourself on possible actors. Look around you, what actors do you notice?

To dive into more detail, use an identification app such as Obsidentify to distinguish species and learn about their specific traits.

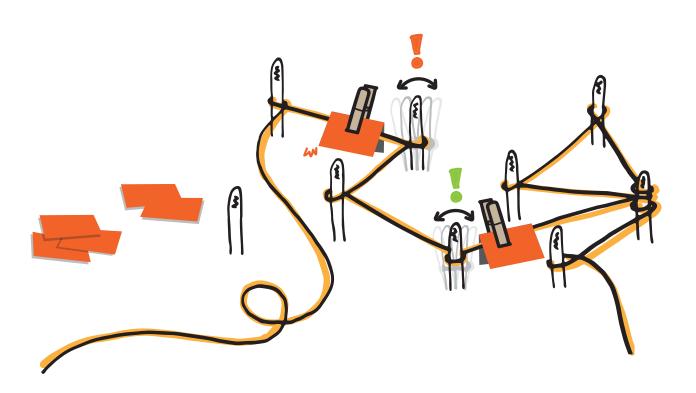
- A. In case having defined more actors than available popsicle sticks, search for actors that may be ambassadors of others. For example, 'bird' could be an ambassador of 'crow', 'dove' and 'sparrow'.
- Consider the interrelations between all defined actors. How are they related to one another? Reveal the more-than-human ecosystem web and its relationships by connecting the popsicle sticks with yarn as shown below. Consider the following relationships, but try to find more:





DEFINING THE PRODUCT IMPACT

- Consider how your design impacts the more-than-human actors and their relationships positively or negatively for the entire product life span:
 - ...during the production process
 - ...during the product use
 - ...during the afterlife
- For each phase of the life span, write negative or positive impacts down on the provided impact-worksheets by answering the questions.
- Observe how the impact ripples through the ecosystem by wiggling the actor popsicle sticks of most intensely impact actors carefully back and forth. Identify where the impact is the largest. In case there are multiple actors impacted most, create a separate worksheet for each actor.
- Attach the sheet to the corresponding location in the web that is impacted most or first, folding the worksheet and fixating this on the yarn with a clothespin as shown below.



REDESIGNING THE PRODUCT

- Design opportunities are presented through defining negative impacts on the more-than-human actors. How could the negative impacts be decreased? Consider which actors are impacted most severely by negative impacts in the ecosystem and prioritize them.
- Ideate for redesign suggestions for each impact-worksheet by filling in a redesign-worksheet and attaching this to the impact-worksheets by tape. Together, the worksheets will serve as the ultimate redesign recipe.
- Use the worksheets as a to-do list to inform the next steps in your design process, further investigating and implementing the redesign suggestions.
- When having brainstormed all redesign solutions, clean up the activity by gathering all materials used. Make sure no materials are left behind in the ecosystem.

