

Uncover Patterns

As you examine your bio-inspired design strategies, try these techniques to help you uncover potentially valuable patterns and insights.

Creature Cards

Using index cards or pieces of plain paper, draw or print an image of each of your inspiring organisms along with notes about their strategies, functions, and key features. (Hint: Think about contextual factors). Spread the cards out on a table and make groupings by shared characteristics. Do you see any patterns? What additional questions emerge as you consider these groups? If you are struggling, pick up two cards and try to identify something they have in common, even if it seems superficial. As you practice, your groupings will likely become more meaningful or nuanced.

Mind Map

Use a large sheet of paper (or any of the many available software tools) to map your strategies, drawing out the connections you notice. This can be a good way to extend and document the creature cards activity above.

Chart

Organize your inspiring organisms in a chart or grid of columns and rows. Place your organisms' strategies on individual rows in one column and use the other columns to represent context, features, scale, or other aspects you want to hone in on and explore side-by-side. Hint: Spreadsheet software like Excel or Google Sheets works great. This approach is also a good way to organize your research if you have a lots of strategies to keep track of. Add a column to keep a record of your research citations, too.

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Reflect

While you explore the techniques above, use the questions listed below as a guide to help you reflect on your work:

- How does context play a role?
- Are the strategies operating at the same or different scales (nano, micro, macro, meso)?
- Are there repeating shapes, forms, or textures?
- What behaviors or processes are occurring?
- What relationships are at play?
- Does information play a role? How does it flow?
- How do your strategies relate to the different systems they are part of?