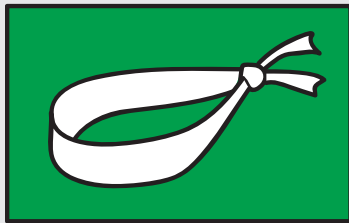




Take the **Blindfold Challenge**

Find What You Need..

- A scarf or other blindfold
- Natural objects such as different plant and tree parts, including seeds, seed pods, bark, pine cones; also shells, and insect parts like butterfly wings.
- "Object Description Notes" lab sheet, **or** pen and paper



Scarf or Blindfold



Natural Objects



Object Description Notes

How could closing your eyes help you "see"?

Using your sense of touch can help you experience nature in a different way. Understanding an object's function, or what it can do, could help you dream up a new bio-Inspired design. For example, the shape of a Maple seed pod helps it spin in the air. The spinning slows its fall and helps it travel far from the tree, where there might be room to grow. This shape could inspire a design for a helicopter propeller, a wing, or more.

You might be surprised what your senses can observe about an object's properties – and what your brain can figure out about its functions. Put on a blindfold and "see" for yourself.

Fact:

The function of an object is not always simple. Termite mounds provide shelter and also offer natural air-conditioning to termite colonies.

Activity Instructions

1. Find a partner. Each of you choose a few natural objects, but keep them hidden from one another. (If you have a safe place to explore natural objects outside, you could work there instead of collecting objects.)
2. Blindfold your partner and hand them (or lead them to) the first object.
3. Ask your partner to use their senses of touch, hearing, and smell to explore the object and describe several properties – “spiky around the edges”, “it rattles when I shake it,” “it smells sweet,” etc. Write down each description on the lab sheet.
4. When your partner is done exploring, read back each description and ask them to think of a possible function for it. For example, “spikes around the edges might discourage animals from eating the plant.”
5. Switch roles and repeat steps 2-4.

Conclusions

Did wearing a blindfold help you make any interesting observations? How? Did you find any functions that would help an organism to survive? What kind of observations might inspire designs from nature?

Brain Buster:

Choose one of the properties and functions you found in your object, and think of a way that could be used in a machine to help solve a technological challenge. Sketch your machine and name it.

Object Description Notes

Object Name	Descriptions	Possible Functions (one per description)



Kids' Science Challenge
Science Projects
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radio series,
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Made possible by
the National Science
Foundation



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