



The Marine Mammal Center.

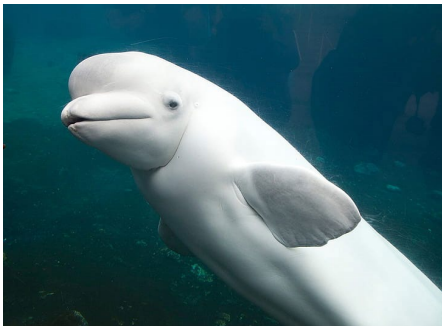
The Marine Mammal Center advances global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education.

## Whale-y Cool Inventions

**Matching Game:** Life in the ocean comes with many challenges. Marine mammals have evolved incredible adaptations in order to thrive in sometimes extreme conditions. People often face similar challenges and can use these adaptations to inspire human innovation. This is known as biomimicry! Can you guess what marine mammal on the left inspired the inventions on the right? Drawn lines between the two columns.

Marine mammals and humans have a lot in common and face many similar challenges. Research is an important part of our work at The Marine Mammal Center to help understand marine mammal and global ocean health.

Beluga Whale



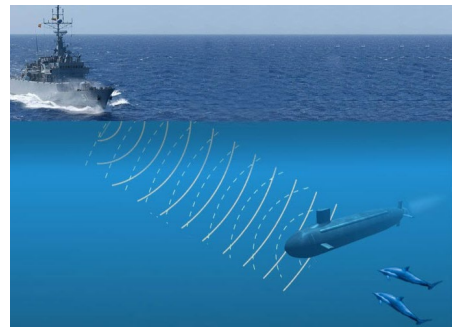
Wind Turbine Blades



Sea Otter



Sonar



Humpback Whale



Wetsuit

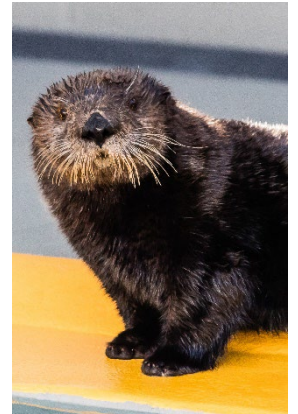




## Whale-y Cool Inventions

### Activity Questions:

1. Pick one animal shown above. What is one adaptation you think they have?



2. Why might they need this adaptation?

3. Can you think of any other human invention that might be inspired from adaptations in nature?



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### *Activity:*

Marine mammals have evolved to be able to handle the challenges of their environments. Every species has unique ways to move, navigate, hunt, and communicate that humans can take inspiration from. As humans continue to explore the mysteries of the ocean, learning from and mimicking strategies seen in marine life will be important to invent new technology. There is always room for new inventions, and we would love to see what you come up with! Put your thinking cap on and do your best to dream up a new invention inspired by an adaptation you see in nature.

### Materials:

- Paper
- Coloring materials
- Crafting items (toilet paper rolls, take out containers, etc., if you want to make your design 3D!)
- Tape (if you go 3D!)

### Instructions:

1. Think about different adaptations you've seen in nature.
2. Brainstorm challenges that adaptation may help. Does that challenge affect humans too?
3. For inspiration, check out Marine Mammal Monday Record Breaking Marine Mammals and spend some time outside! There's some pretty cool adaptations right outside your window!
4. Now it's time to make your model! Building models is an important step in the engineering process. By making a model or prototype first, you can find design flaws and test out different materials before building on a bigger scale. Sketch your model on paper, or better yet, construct it out of crafting supplies.
5. If the first prototype you make doesn't work out, don't worry! All engineers have to go back to the drawing board eventually, so it's ok if your first design isn't your best one. We only get better when we try again!
6. Once you've built your model, label the key parts of your design and describe how they are inspired by nature.
7. Share your design with friends and family and get them excited about biomimicry!
8. We'd love to see you design too! Post a picture and tag us @themarinemammalcenter

### *Further Learning:*

You can join the Marine Mammal Center to be an ocean hero! Did you know, even a simple step like sharing what you learn with others helps people think about, and maybe care about our ocean more. Explore some of our conservation work here to see how we use what we learn to make a better ocean for humans and marine mammals alike!

<https://www.marinemammalcenter.org/science-conservation/conservation>

