

# SURVIVAL STRATEGIES

**PART I** In the film, *Cephalopods: Aliens of the Deep*, you see the tiny Flamboyant Cuttlefish walking along the seafloor. You see the Bigfin Reef Squid showing off its ability to change colors several times a second. You even see the Mimic Octopus digging into the sand while copying the skin patterning of a sea snake. These are *cephalopods*. Their name comes from the Greek word “ceph,” meaning head, and “pod,” meaning foot. Their heads are attached to their tentacles, which they sometimes use like feet but mostly use as arms to capture their prey.



**Coconut Octopus**



**Flamboyant Cuttlefish**



**Bigfin Reef Squid**



**Mimic Octopus**



**Australian Giant Cuttlefish**



**Black-eyed Squid**

Test yourself on what you learned about the cephalopods shown here by marking these statements with a T or an F for True or False.

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| <p>_____ 1. The Mimic Octopus gets its name from its ability to make sounds like other sea creatures.</p> <p>_____ 2. Cephalopods have millions of skin cells called <i>chromatophores</i> that allow them to change the color and texture of their skin to protect themselves from predators.</p> <p>_____ 3. The Coconut Octopus uses seashells and sometimes ocean trash to hide from predators and surprise its prey.</p> <p>_____ 4. The small Flamboyant Cuttlefish only changes its skin color to hide from predators.</p> <p>_____ 5. Black-eyed Squid take their clutch of eggs to the ocean's depths to keep their young away from predators.</p> | <p>_____ 6. The Flamboyant Cuttlefish walks on the seabed and has few predators.</p> <p>_____ 7. The Australian Giant Cuttlefish is the largest cuttlefish in the world, growing up to half a meter long and weighing more than 10 kilograms.</p> <p>_____ 8. In the mating season, the male Bigfin Reef Squid can change color several times per second to attract females.</p> <p>_____ 9. Octopus, squids, and cuttlefish all have two eyes that are small in proportion to their bodies.</p> <p>_____ 10. The Coconut Octopus, the Black-eyed Squid, and the Flamboyant Cuttlefish all have eight legs and two tentacles.</p> |
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## PART 2 STEM Challenge!

First, circle the image of the item you think the Coconut Octopus would most likely use as a hiding place or shield. Then use the steps in the engineering design process at right to create and improve on a model hiding place for this species.



### Engineering Design Process

- 1. Ask:** What is the problem? Define it.
- 2. Imagine:** Brainstorm. Choose a solution.
- 3. Plan:** Draw it. List materials needed.
- 4. Create:** Make it. Try it out.
- 5. Improve:** Make it better.