

**Shark Anatomy Cards
#1**

dermal denticles ("skin teeth")	cartilaginous skeleton
spiracles (holes behind the eyes)	gill slits
teeth	jaws
eyes and eyelids	inner ears

**Shark Anatomy Cards
Answer Key #1**

<p style="text-align: center;">cartilaginous skeleton</p> <p>Sharks skeletons are made of cartilage, which is what your nose and ears are made out of. Cartilaginous skeletons are tough, weigh less and are much more flexible than bony skeletons, allowing sharks to make sharp quick turns.</p>	<p style="text-align: center;">dermal denticles ("skin teeth")</p> <p>These small tooth-shaped scales on the skin of a shark's body reduce drag as it swims, allowing a shark to slip quickly and quietly through the water.</p>
<p style="text-align: center;">gill slits</p> <p>Gills are the respiratory organ of sharks and other fish. Water comes in through the spiracles and passes over the gills. Dissolved oxygen moves from the water into the blood of the shark. The water then leaves the shark's body through its gill slits.</p>	<p style="text-align: center;">spiracles (holes behind the eyes)</p> <p>Spiracles are small openings on the head of a shark, just behind the eyes. Water enters the shark's body through the spiracles, passes over the gills and then leaves the shark's body through gill slits.</p>
<p style="text-align: center;">jaws</p> <p>In some species or kinds of sharks, like the white shark, the upper jaw is not connected to the skull. This allows the shark to take huge, powerful bites and tear its food.</p>	<p style="text-align: center;">teeth</p> <p>Teeth line sharks' jaws in multiple rows. As the teeth in the front row are damaged or lost, teeth from the back row move forward. Sharks lose and replace thousands of teeth throughout their life. Teeth are used in feeding for cutting, tearing, and grasping.</p>
<p style="text-align: center;">inner ears</p> <p>Sharks hear low-pitched sounds through two small holes or pores at the top of their head. Sharks' inner ears, which are very similar to the inner ears of humans, also help sharks maintain their balance in the water.</p>	<p style="text-align: center;">eyes and eyelids</p> <p>Sharks' eyes are well developed and very sensitive. They can see very well, even in very low light conditions. The size, shape and position of sharks' eyes vary depending on where they live as well as what and how they hunt. Some sharks have a moveable lower eyelid called a <i>nictating membrane</i> that rises to shield the eyes from possible damage during feeding.</p>

**Shark Anatomy Cards
#2**

lateral line	muscles
heart	camouflage
stomach	intestine
ampullae [am-PUY-lay] of Lorenzini (sensory pores)	olfactory organs (nostrils)

**Shark Anatomy Cards
Answer Key #2**

<p style="text-align: center;">muscles</p> <p>Muscles allow sharks to move their bodies during swimming, eating and mating. Powerful muscles in the tail help sharks move through the water and travel long distances. Muscles in the jaw allow some species of sharks to take powerful bites.</p>	<p style="text-align: center;">lateral line</p> <p>Made up of small hairs within pores, the lateral line senses vibrations in the water and helps sharks locate other animals in the surrounding environment. Knowing the location of other animals can assist sharks in catching prey or avoiding predators. The lateral lines are found on both sides of sharks bodies and extend from the head to near the tail.</p>
<p style="text-align: center;">camouflage</p> <p>Some species of sharks are camouflaged, which helps them avoid predators and makes it easier for them to surprise unsuspecting prey. Certain species, such as the white shark, have a special type of camouflage called counter-shading - a light belly and dark back. From above, the dark back blends in with the dark ocean below; from below, the lighter belly blends in with the surface light from above.</p>	<p style="text-align: center;">heart</p> <p>Sharks' hearts have two muscular chambers that pump blood throughout their bodies. The heart pumps low-oxygen blood to the gills, where it takes up oxygen. This oxygen-rich blood is pumped throughout the rest of their body.</p>
<p style="text-align: center;">intestine</p> <p>Sharks' intestines are spiral shaped. The spiral shape takes up less space inside their bodies, slows the movement of food and provides lots of area where nutrients can be absorbed.</p>	<p style="text-align: center;">stomach</p> <p>Most sharks swallow their food whole or bitten into relatively large pieces. Strong acids in sharks' stomachs digest the prey.</p>
<p style="text-align: center;">olfactory organs (nostrils or nares)</p> <p>Sharks have a very keen sense of smell. Some species of sharks can smell a drop of fish blood in a million drops of seawater. This characteristic allows some species of sharks to hunt injured prey. It helps other sharks find prey buried in the sand.</p>	<p style="text-align: center;">ampullae [am-PUY-ley] of Lorenzini (sensory pores)</p> <p>Ampullae of Lorenzini are small sensory pores filled with a jelly-like substance on the tip of sharks' heads. These pores help sharks detect bioelectricity - the weak electrical current that living things produce. By sensing bioelectrical pulses, some sharks can find hidden prey.</p>

**Shark Anatomy Cards
#3**

pelvic fins (bottom fins)	pectoral fins (side fins)
dorsal fins (top fins)	caudal fin (tail fin)
liver	anal fins (bottom fins)

**Shark Anatomy Cards
Answer Key #3**

<p style="text-align: center;">pectoral fins (side fins)</p> <p>The stiff pectoral fins, located on each side of sharks, act a lot like airplane wings, allowing sharks to steer up and down or side to side.</p>	<p style="text-align: center;">pelvic fins (bottom fins)</p> <p>The pelvic fins located on the underside of sharks allow them to change directions when swimming.</p>
<p style="text-align: center;">caudal fin (tail fin)</p> <p>The tail, also called the caudal fin, provides the power for sharks to swim forward.</p>	<p style="text-align: center;">dorsal fins (top fins)</p> <p>The dorsal fins on sharks' backs aid in stability during swimming.</p>
<p style="text-align: center;">anal fins (bottom fins)</p> <p>The bottom back anal fin assists sharks in stability and balance. However, not all sharks have an anal fin.</p>	<p style="text-align: center;">liver</p> <p>The liver is one of the largest organs in sharks. It filters waste from sharks' blood, stores vitamins and helps sharks turn food into energy. The large oily liver also helps sharks stay afloat.</p>