

Welcome to Wildlife Adventures: Land and Sea — March, 1st month

A new course at SchoolhouseTeachers.com!

The Magnificent Frigate Bird

..... life above the open ocean



Frigatebird (*Fregata magnificens*) a.k.a. Magnificent Frigatebird or Man'O War :

The frigate is one of the most interesting species of seabirds, nick-named *Man'O War* because of its **habit** of pirating food from other birds. The frigatebird will swoop in and attack other birds, stealing their meal. Frigates also eat jellyfish, turtles, and squid. They are a member of the *Fregatidae* family—genus *Fregata*—and are related to pelicans. In some places, they are called *frigate pelicans*.

Frigates are known for their long wings that can span between six to eight feet. They have the longest wingspan per body weight of any other bird. They are graceful gliders and have a swallow, or split, tail—extremely aerodynamic. Frigates spend most of their time flying over the waters of the **tropical** Atlantic, and other tropical seas, coming in to **roost** only when it is time to mate. They spend most of their lives in the air.

Frigatebirds are **pelagic** feeders, which means they feed on fish that are not close to shore. When fish live away from the coast, and not on the **continental shelf**, they live in the **pelagic zone**, also called the open-ocean.

The pelagic zone is the opposite of the **benthic zone**, which consists of animals that live on the bottom of the sea. Crabs and clams are examples of these **benthos** marine organisms.

Experienced fishermen watch out for the frigates, which are known to track **predators**, such as sharks, that herd baitfish toward the surface, thus making it easy to **pluck** a meal right out of the water.

Each year they choose one mate and the female lays a single egg with an **incubation** period of 55 days. Frigates nest in colonies. The male frigate has a red throat pouch, which he **inflates** to attract a mate—see the picture just below! Females take care of their young for about a year and so are able to mate every two years. The males mate annually. They spend more time caring for their young than any other species of bird. The young have to be fed and grow strong enough to be able to fly long distances high over the water. Frigates even sleep “on the wing.” There are studies currently going on to try and learn more about their sleeping patterns.



[Picture credit Wikimedia Commons](#)

Bible reading:

Genesis 1:20-25

New International Version (NIV)

²⁰ And God said, “Let the water teem with living creatures, and let birds fly above the earth across the vault of the sky.” ²¹ So God created the great creatures of the sea and every living thing with which the water teems and that moves about in it, according to their kinds, and every winged bird according to its kind. And God saw that it was good. ²² God blessed them and said, “Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth.”²³ And there was evening, and there was morning—the fifth day.

²⁴ And God said, “Let the land produce living creatures according to their kinds: the livestock, the creatures that move along the ground, and the wild animals, each according to its kind.” And it was so. ²⁵ God made the wild animals according to their kinds, the livestock according to their kinds, and all the creatures that move along the ground according to their kinds. And God saw that it was good.

Bible memory verse:

Genesis 1: 20

²⁰ And God said, “Let the water teem with living creatures, and let birds fly above the earth across the vault of the sky.”

Discussion:

Do the Bible reading with your children and ask questions to open up the discussion about how God created the birds of the air and the fish of the sea. Feel free to expand the Scripture memory work for older students.

Copywork: K – 1st grades:

Genesis 1:20

And God said, “Let

the water teem with

living creatures, and

let birds fly above

the earth across the
vault of the sky.”

Copywork, 2nd grade and up (repeat as directed):

Genesis 1:20

And God said, “Let the water teem
with living creatures, and let birds
fly above the earth across the vault
of the sky.”

Cursive copy work (repeat as directed):

Genesis 1:20

And God said, "Let the water teem with
living creatures, and let birds fly above
the earth across the vault of the sky."

Spelling for K- 1st practice:

bird bird bird

swoop swoop swoop

roost roost roost

egg egg egg

sea sea sea

habit habit habit

pluck pluck pluck

wing wing wing

fish fish fish

fly fly fly

ocean ocean ocean

Geography:

Look up the Atlantic Ocean on a world map. Point out both the North Atlantic and the South Atlantic.

Point out the Gulf of Mexico on your map.

Look up the Pacific Ocean on the map. Point out both the North Pacific and the South Pacific.

Check out the [Range map from Cornell University here:](#)

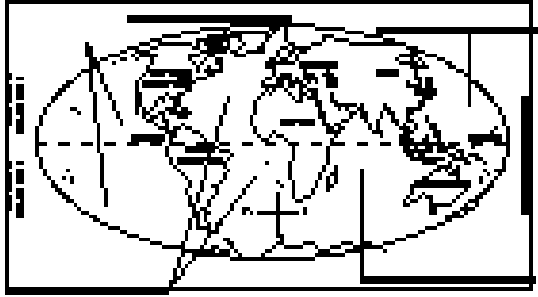
Magnificent Frigatebird

Fregata magnificens



Printable map of the [continents and oceans from Super Teacher here.](#)

Another option for an online map, from Enchanted Learning, is here:



Continents and oceans – [printable from Teachervision](#) – 1st of 5 free items.

Use encyclopedias, maps, and even puzzles to identify world oceans and the areas that include tropical seas, where the frigates live. Discuss that tropics are the hot and humid areas located near the equator. The air above the open ocean is the home of the frigate.

Close to shore is the Continental Shelf, pictured below.

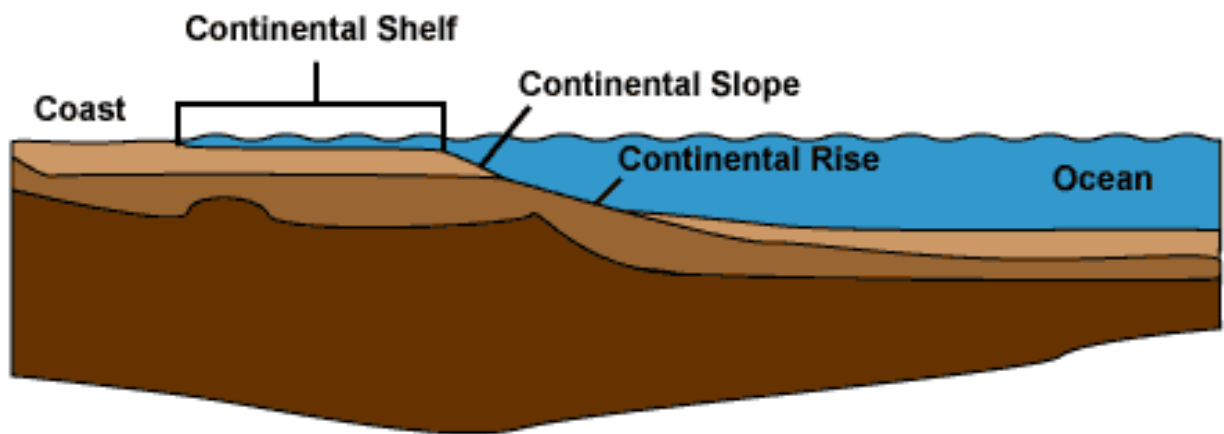


Figure 1: Continental Shelf - Source: [Office of Naval Research](#)

The pelagic zone of the fish that frigates eat is located beyond that area. Have older students sketch, draw, and/or paint their own diagram, such as the one pictured. Consider sketching it on a big sheet of art paper, color it in, and have students add pictures (drawn, printed, or cut from magazines) of animals that live in each zone.

Learn more about [the zones here](#) (for older kids). Younger kids can stick to sunlight, twilight, midnight, and abyss.

Under the Sea

[Go here](#) to explore each zone and the creatures that live in them.

Add them to your art paper sketch of the continental shelf and open ocean in the proper zone.

Consider the [TASK page](#) for older students as they choose an assignment of photographer, navigator, researcher, and more in exploring further. (It is designed for class projects—but can be adapted.)

Preschool–1st grade – keep young ones busy while you read as they color this benthic marine creature – other ideas include drawing jellyfish, fish, or making play dough critters.

The frigatebird is in the pelican family and is sometimes called the “frigate pelican.”



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American White Pelican
Pelecanus erythrorhynchos

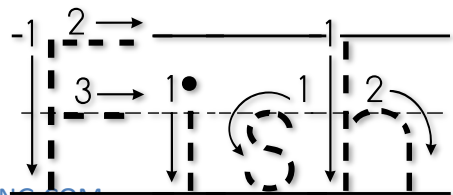
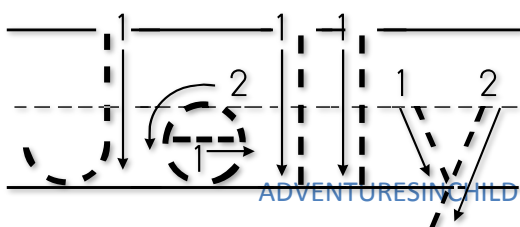
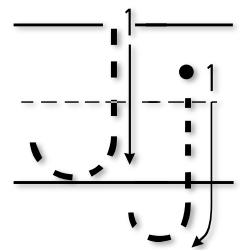
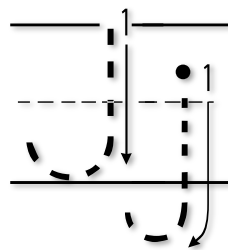
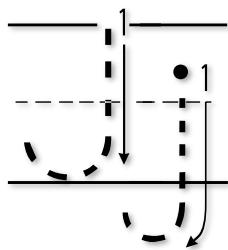
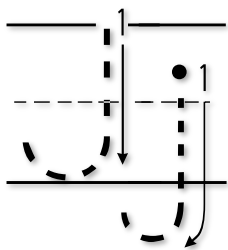
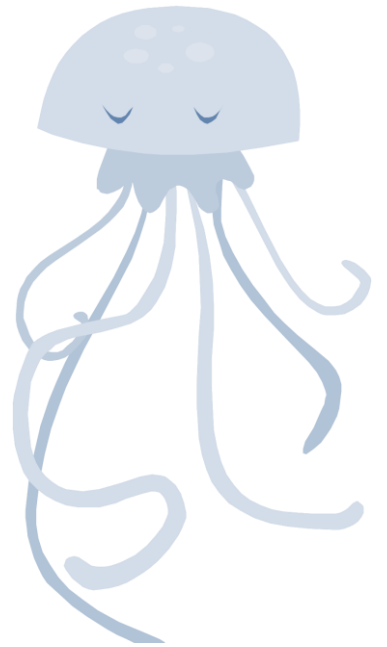
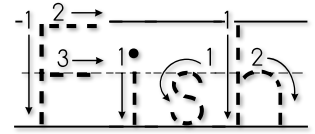
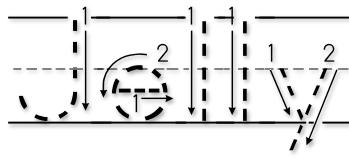
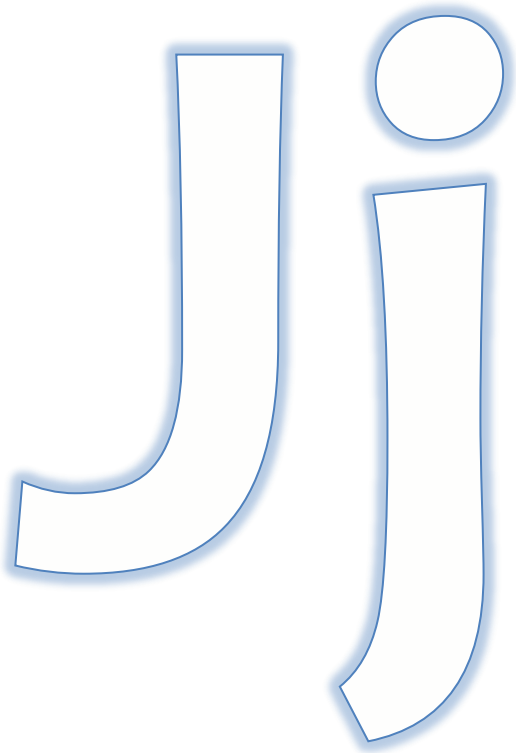
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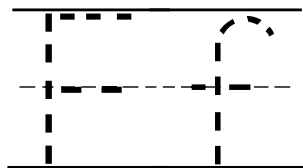
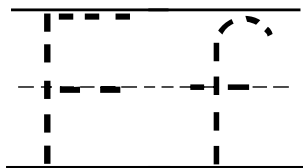
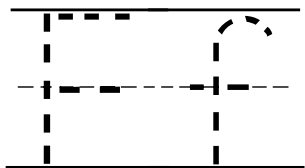
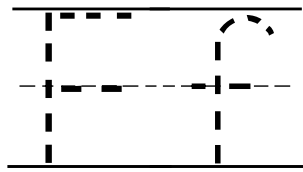
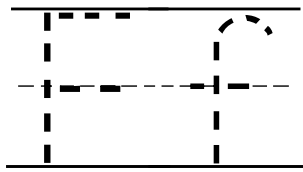
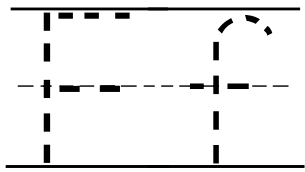
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J is for Jellyfish – [more pages by First School](#) including Frigate coloring page:



Maganificent Frigate-Bird





Ff is for Frigatebird



Notebooking Fairy – [animal notebooking page](#) – Gather info for Notebook pages from [Cornell Lab of Ornithology here](#).

Be sure to sketch frigates in your nature journals if you keep them.

Tropical Oceans Word search:

ANIMAL	
KINGDOM	
PHYLUM	
CLASS	
ORDER	
FAMILY	
SPECIES	
HABITAT	
RAISING YOUNG	
Diet	
PREATORS/DANGERS	
OTHER FACTS	

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All About Our Earth's Ecosystems!
TROPICAL OCEANS

About Tropical Oceans:
Tropical oceans are known mainly for one thing: coral reefs. Coral reefs are often referred to as the rainforests of the ocean because of the high diversity of animals that make them their home. Many species of fish, such as barracuda, clownfish, angelfish, sharks, rays, triggerfish, butterflyfish, and gobies live in reefs, as well as reptiles such as sea turtles, mammals such as dolphins and whales, invertebrates such as lobsters, crabs, and shrimp, and mollusks such as clams, octopus, cuttlefish, and squid. Even coral is actually a colony of many tiny animals living together!

Tropical Ocean Stats:
- Tropical oceans are found between the Tropic of Cancer and the Tropic of Capricorn along the Equator.
- There are few true plants found in tropical oceans, the most common being seaweeds. Everything else is either coral, which are animals, or algae such as seaweeds and kelp.
- Many of the creatures that call tropical oceans their home are highly adapted to warm, especially those who live in densely populated reefs! Camouflage plays a big part of life in the reefs.
- The largest reef is the Great Barrier Reef off the coast of Australia. It is the largest structure made by living organisms (animals) and can be seen from space!

Word Search

L	S	F	D	T	U	T	G	O	J	F	R	J	S	K
A	H	K	P	R	N	C	L	N	E	J	A	K	L	R
H	A	L	D	D	O	L	P	H	I	N	C	E	P	C
L	R	E	E	A	E	A	R	R	N	I	G	P	E	U
E	K	L	H	N	K	M	H	A	D	N	T	I	J	T
O	M	S	N	R	E	F	A	M	R	E	U	W	T	T
N	T	N	R	E	E	F	O	G	U	H	R	H	K	L
L	A	K	I	S	L	S	U	O	I	S	T	U	A	E
T	O	U	U	G	B	M	T	O	U	A	L	E	I	F
O	A	C	O	R	A	L	N	W	E	O	E	R	I	
H	J	O	R	U	D	A	K	C	N	I	C	N	O	S
J	E	U	E	G	J	A	E	O	P	N	A	D	N	H
L	B	A	R	R	A	C	U	D	A	E	T	H	M	S
E	U	Q	N	I	E	D	E	A	N	J	D	E	N	L

Find the tropical ocean terms below in the word search. They can be horizontal or vertical.

1) TURTLE	5) DOLPHIN
2) CORAL	6) CUTLEFFISH
3) SHARK	7) CLAM
4) BARRACUDA	8) REEF

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Video – Cornell University:



Math

Place painters' tape or masking tape on tile or concrete in a strip about 9 feet long and, using a measuring tape and marker, have students measure and mark off 8 feet, 7 feet, and 6 feet, representing potential wingspans of the frigatebird. Then have students convert that to inches—and yards + feet + inches. Record data on your notebooking pages or in journal.

* Credits are listed throughout the unit study: the vocabulary is derived from Free Online Dictionary.com; Sibley Guide to Birds by National Audubon Society; and Wikipedia Online also provided scientific data.