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.
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."
Vocabulary + Spelling — these words come from the main reading in the lesson:

Habit – a tendency to act in a certain way, an established custom or tradition
Tropical – hot and humid located in the tropics, near the equator
Roost – a place, perch, or branch where birds go to sleep
Pelagic – organisms living in or on the open sea
Pelagic zone – the open sea, away from shore
Continental shelf – the relatively shallow sea bed surrounding a continent
Benthic zone – relating to the bottom of the sea or lake
Benthos – organisms living at the bottom of the sea or lake
Predators – an animal that lives by capturing and eating other animals
Pluck – to remove quickly, a quick pull or tug
Incubation – sitting on eggs so as to hatch them with the warmth of the body
Inflate – to fill something with air or gas, making it expand

Spelling for younger students:

Bird  habit
Swoop  pluck
Roost  wing
Egg  fish
Sea  fly

* Bonus word: ocean
Spelling for K-1st practice:

bird  bird  bird  bird

swoop  swoop  swoop

roost  roost  roost

egg  egg  egg

sea  sea  sea

habit  habit  habit

pluck  pluck  pluck  pluck

wing  wing  wing

fish  fish  fish  fish

fly  fly  fly

ocean  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:

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.

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.
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.”

J is for Jellyfish – more pages by First School including Frigate coloring page:

ADVENTURESINCHILDREARING.COM
Magnificent Frigate-Bird
Jelly Fish

Jj Jj Jj Jj Jj

Jelly Fish
Ff is for Frigatebird

Be sure to sketch frigates in your nature journals if you keep them.
Tropical Oceans Word search:

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.