TORK **APBOOK**







Stork Research & Lessons

Library List:

Wheel on the Chimney by Margaret Wise Brown Wheel on the School by Meindert DeJong Birds Do the Strangest Things by Leonora and Arthur Hornblow (Step-Up Book) All About Animal Migrations by John Sanders (not specifically about storks) Aesop's The Farmer and the Stork Aesop's The Fox and the Stork Aesop's The Frogs Asking for a King The Storks by Hans Christian Anderson (1838)

As you read through books about storks, your child can record them in Stork Book Fan.

<u>Science –</u>

Classification:

Birds are grouped into different orders, families, and species according to the characteristics of their bills, feet and wings. Storks are classified in the following way:

Kingdom: Animal Phylum: Chordata (having backbones) Class: Aves (meaning bird) Order: *Ciconiiformes* (long –necked, long-legged waders including herons, bitterns, ibises, spoonbills, flamingoes) Family: *Ciconiidae* (storks) Genus: *Ciconia* (white stork, black stork, wood stork, etc.)

Have child copy classifications into Stork Classification Graduated Book, and also list other animals in those classifications.

Literature Connection: Read Aesop's *The Farmer and the Stork* mini book. In what ways did the Stork say he was different than the Cranes? Compare and Contrast a Stork and a Crane in Venn Book.

Stork Plumage:

Birds have feathers that are designed for different functions. To keep a stork warm and

protect it from the elements, it has Downy feathers that are against the bird's body, Coverts, which are the small feathers overlying the bases of tail and flight feathers, and Scapulars, which protect the shoulder regions. The stork also has lightweight, strong and flexible feathers designed for flight, the Primaries, which are the principle flight feathers, and the Secondaries, which extend to the wing tips. A stork also has tail feathers, which help it to slow down, steer, and balance itself. Label the different feathers of a bird and describe their functions in Stork Plumage Simple Fold.

- a. Primary Feathers
- b. Secondary Feathers
- c. Coverts
- d. Scapulars
- e. Tail Feathers

Stork Bills and Feet:

The bill of the stork is longer than its head, and is straight, pointed, and strong. It is designed so that a stork can wade in water, reaching his bill down to hunt for food. A stork's feet are partly webbed, to aid him in wading in shallow waters. Storks are not swimmers, just waders.

How else does a stork benefit from having a long bill? Read Aesop's *The Fox and the Stork* mini book to see!

Stork Diets:

Storks are predatory carnivorous animals, meaning they eat meat, and will pretty much eat anything they can get in their bills. They will move their open bill around in water until it feels its prey, and then will snap their bill shut quickly. They will consume a wide variety of prey items including insects, frogs, toads, tadpoles, turtles, fish, rodents, small alligators, snakes, lizards, earthworms, mollusks, crustaceans, and, on occasion, the chicks or eggs of ground-nesting birds. Complete Stork Diet Wheel.

Literature Connection: Read Aesop's *The Frogs Asking for a King* mini book. What did the storks eat in this story?

Stork Habitats:

A habitat is the place that plants and animals live, with everything they need to function and survive. A habitat will include food, water, and shelter. There are many different habitats throughout the world, including desert, prairie, rainforest, woodlands, pond, etc. What kind of habitat do storks need? If you are reading *Wheel on the School* this week, the story gives you many details as to what a stork's habitat should look like. They need trees, to perch from and for materials to build nests. They need water, especially swampy or marshy water, where they can find all the little critters that make up their diet. They need a warm climate. They need a safe, inviting place to nest. Do storks live in your area? Why or why not? Is your habitat inviting to storks? While your habitat includes everything you need to survive, it may not be wonderful for storks. That is one of the reasons God has created so many different animals to fill all the different habitats throughout the world.

Complete Habitat Bi-Fold.

Kinds of Storks:

There are over 18 varieties of storks around the world. The most popular are the white storks, black storks, and wood storks.

Black Stork –	
Size:	40" tall with 60" wingspan
Coloring of adult storks:	All black except for a white belly, and red bill and legs.
Migrate?	Yes
Where do they live?	Live in central and eastern Europe from approx. April until September, migrating to Africa or Israel for the winter months.
Special Facts:	Black Storks will make their own nests out of sticks high up in trees. They are shyer than the White Storks. They will inhabit marshy wetlands or woodlands, hills or mountains with creeks.
White stork –	
Size:	44" tall with 60" wingspan
Coloring of young storks and a black bill.	: White with a small bare patch of black skin around their eyes,
Coloring of adult storks:	White with black tail and wing feathers, tinted with purple and green, and a red bill and legs.
Migrate?	Yes
Where do they live?	Live in Europe from approx. April until September, migrating to Africa for the winter months.
Special Facts:	White Storks have been building their nests on man-made structures in Europe since the Middle Ages.
Wood stork –	
Size:	40" tall with 60" wingspan
Coloring of young storks	: White with black tail and wing feathers, a gray/black feathered head, and a yellow bill.
Coloring of adult storks: black bill.	White with black tail and wing feathers, a bald head, and

Where do they live?	They are found along the coasts where they look for meals in the marshes, ponds, and wetlands. In the United States, you can find one group of Wood Storks lives in Florida, South Carolina, and Georgia. The other larger group lives in the west, making their nests in California, Texas, Arkansas, Arizona, and Louisiana
Special Facts:	The wood stork is the only stork that takes up residence in North America. They are called Wood Storks because they love to roost and nest high up in the safety of tree branches. They are found along the coasts where they look for meals in the marshes, ponds, and wetlands. They have been on the Endangered Species List since 1984.

Complete General Stork Info Graduated Book for one of the stork species if desired.

Stork Nesting Habits:

Wood Storks nest in colonies, with multiple nests in a single tree. The nests can reach up to 48" in diameter. White Storks can be enticed to nest on the roofs of houses, if embellishments such as wooden wagon wheels are in place. You will also find nests on towers, chimneys, telephone poles, haystacks, trees, and cliff edges. Nests are huge and bulky, constructed of branches and sticks and lined with twigs, grasses, sod, rags, and paper. Particularly old nests have grown to over 6' in diameter. Some nests have been in use for hundreds of years. Both the male and female storks participate in nest construction with the male bringing most of the material.

Other Interesting Stork Facts:

White storks do not have a voice. To communicate with each other, they clatter their bills together and dance around, ruffling their feathers. Black Storks do have a rasping call, and rarely use the bill clattering technique that the White Storks use. All storks fly with his or her necks and legs outstretched. Because of their size and weight, once the storks reach an acceptable altitude, they stop flapping their wings and glide. If desired, complete Interesting Stork Fact Envelope Book.

Reproduction:

Note – the discussion of Stork reproduction and myths about them bringing babies may prompt your young children to ask, "Well, where do babies come from?" So you might want to be prepared for these questions, or avoid these lessons all together until you and your children are ready.

While storks don't really bring babies to expecting parents, they did get this reputation because of what good parents they are. Unlike many other animals, storks will meet their mate, and stay with them all through the making of the nest, fertilization and lying of the eggs, incubation period, and training sessions of young storks. They will stay together until migration, where they will sometimes, but not always, meet up again. Around April, Storks will lie between three and five eggs, larger than tennis balls, and will sit on them for an incubation period of 33-34 days. Both the male and female stork share in child rearing duties, feeding, cleaning up after, training, and guarding the little birds. Feeding keeps the parents very busy, as a stork family will eat close to 400 pounds of fish each season! In mid-July, the migrating storks will send their young ones off first, on their journey south, and then will leave themselves in August-September. This cycle will continue again, when the birds begin their return trip in January-February, and arrive in the north by April.

Many rabbit trails can be taken on the study of birds in general, including the parts of an egg, as well as bird reproductive, respiratory, skeletal, and circulatory systems. Check your library for general bird books as desired.

Literature Connection: Print out and read <u>*The Storks*</u> by Hans Christian Anderson (1838) about how a mother and father stork take care of their children, and store it the pocket provided.

Social Studies –

US Geography:

Referring to the information above about Wood Storks, on United States Shutterfold, color in all the states where you would find Wood Storks

Migration of Storks:

Every year, over 450,000 white storks travel from Europe to Africa and back again. When animals travel over distances of land it is called migration. Animals migrate for various reasons. They are sometimes moving to a more comfortable climate, while other times they are traveling in search of food. Sometimes they travel to a certain place for mating, and other times the reasons are just unbeknownst to us. Storks are large, heavy birds that have a hard time staying in the air over large bodies of water. They actually take a longer route than necessary, bypassing the Mediterranean Sea and going over the warm airs of the Middle East, or through Spain. Over land there are thermals, which are columns of warm air, which give the birds an easier ride. It actually requires the storks to work less going a longer distance by flying on these thermals. Storks run into many obstacles during their travels, such as aircraft, power lines, barbed wire, polluted water and pesticides.

Print out Stork Passport Cover and Pages. Trace route of storks on a big world map. Pick a starting point, one of the countries that White Storks reside in: Poland, Belgium, Netherlands (Holland), Denmark, France, Germany, Sweden or Switzerland. On *Leaving From* page, fill out country information and draw a picture or glue in a picture of a flag. Now your stork needs to get to Africa where it will stay for the winter. If your stork is leaving from Western Europe, it will be going to Mali or Nigeria. If your stork is leaving from Eastern Europe, it will be going to Sudan or Kenya. Pick a destination. Now, remember that storks can't fly over large bodies of water, so be sure to pick out the routes that take them over mostly land. Log in your passport any "layovers" (countries it passes through or rests in) your stork may have, and finally, its destination. Once you know your route, Country Flags can be downloaded from

http://www.wpclipart.com/flags/index.html

Language Arts –

Vocabulary:

These are some of the terms you may come across in your study of storks. Have your child use them in a sentence to demonstrate understanding, and record them in Vocabulary Flap Book.

Classification – the process of grouping animals based on similarities and differences. Plumage – a bird's feathers

Wade-walk through water.

Predator – an animal that hunts his food

Prey - an animal that is victim to a predator

Habitat – the self-sustaining environment that plants and animals are found.

Incubation – the amount of time eggs are kept warm until they hatch

Migrate – to move from one region or climate to another.

Carnivore – meat eating animal

Thermal – warm pockets of air found over land

Myth –a traditional story that often explains a naturally happening occurrence Endangered – animals that are in danger of becoming extinct.

Stork Myths and Folktales Around the World:

A myth is a traditional story that often explains a naturally happening occurrence. One of the most popular myths about storks is the age-old image of a stork carrying a bundled up baby. This originated with a Greek myth in which a stork was actually stealing and carrying away a baby. The beautiful Queen of the Pygmies, Gerana, angered a goddess named Hera so she changed her into a stork. As a stork, Gerana tried to steal her own child, Mopsus, whom she loved, but was constantly chased away by her former kin.

In Hebrew the word for stork meant "kind mother", and their care for their young made the storks a widespread symbol of parental care.

In northern Europe, the storks arrive in Poland and Germany nine months after midsummer. If they landed and nested on the roofs of people's homes, they were thought to bring fertility and prosperity, thus earning the reputation of "bringing babies".

Because storks are thought to have just one life long mate, in Norse mythology and other folklore, the stork represents a life-long commitment to family values and fidelity. This symbolism carried over to Early Christians up until the 17th century.

There is an old Polish folktale that tells us that reptiles and amphibians became so numerous and caused so many problems that God put them all in a sack to get rid of them. He gave the sack to a human, with instructions to empty the sack into the sea. The man was overcome with curiosity so he opened the sack to see what was inside. All of the animals escaped and hid, so God changed the man into a stork to hunt them all down and clean up the mess.

In Bulgaria, there is a special holiday celebrated on March 1st called "*Baba Marta*", or Grandmother March. Everyone exchanges *martenitsi*, or "little Marches", which are little objects made of red and white thread. They range from just tassels or bracelets, to shapes of hearts, dolls, and other characters, and are to be pinned on to clothes. The martenitsi are not to be removed from the clothing until a stork is spotted, which could be well into April, or it is said that you will not have a healthy year.

Record some of the myths about what storks are said to bring in Storks Bring What?! T-Book.

Stork Spelling:

Stork is spelled with a special letter team, "or". When the letters "or" come at the end of a word, or if "or" is followed by another consonant, the "r" changes the "o" to a long sound. How many "or" words can your child thing of? Examples include or, for, fork, cork,

corn, pork, storm, etc. Use "OR" Letter Tiles to spell out "or" words, and then store them in lapbook using pocket.

Stork Acrostic Poem:

Have your child write an acrostic poem about storks.

An acrostic poem is when the first letter in each line of the poem starts with a letter in the word the poem is about. The lines can rhyme, but the don't need to.

For example: **R**olling thunder over the hills **A**nimals all running for cover It pounds against the rooftop **N**eeded and welcomed by the dry earth.

Record Stork Acrostic Poem in Flap Book.

Math/Physical Education -

Stork PE:

While doing this unit, your child may enjoy doing the "Stork Stand". Standing with his feet shoulder width apart, balance on one foot with his arms tucked in like a stork's feathers. Have child practice this several times and see how long he can hold this stand for. Now have child spin in circles until you yell out "Stork!" and the child quickly gets into the stork stand. How long could he balance now? Now, have child spin in circles again and when he hears you yell out "Stork!" he closes his eyes and try to stand in the stork stand position. How long can he balance this time? Record child's times using tally marks in Stork Stand Flap Book.

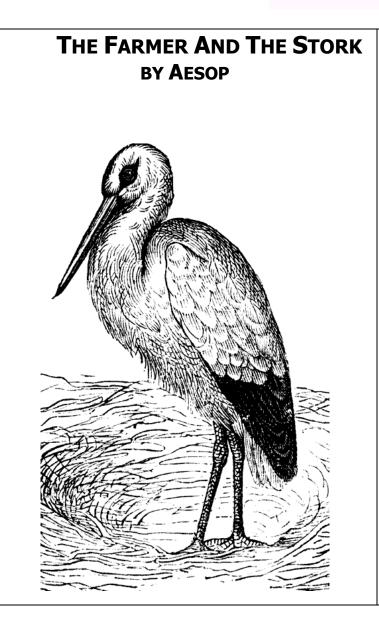
This product may be used for your own classroom or personal use. It may not be shared as a pdf file, on the web, or in any other way. © www.homeschoolshare.com Cut out all fan blades. Stack with cover on top. Hole punch on left side and insert brad or tie off with yarn.

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Books About	

Cut out all pages on solid lines. Stack with cover on top and staple on left.

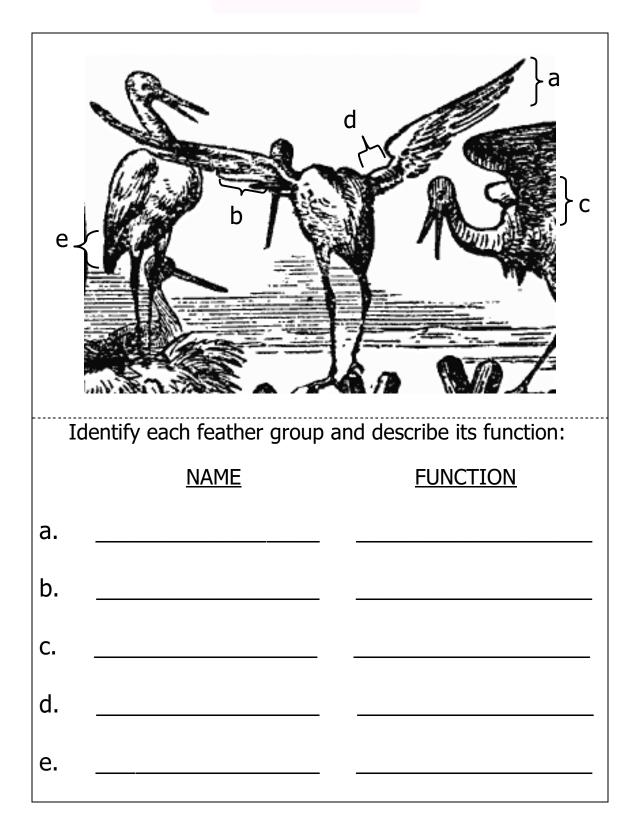
Stork Classification		1				
Others in this kingdom:	Kingdom		7			
Others in this phylum:		Phylum		7		
Others in this class:			Class		_	
Others in this order:				Order		
Others in this family:					Family	
Others in this genus:						Genus

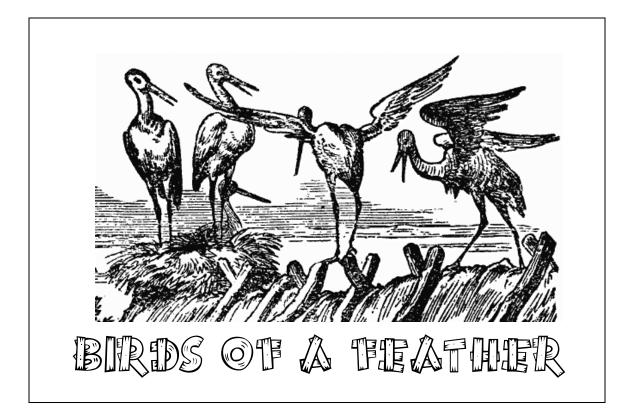


A FARMER placed nets on his newly sown plow lands and caught a number of Cranes, which came to pick up his seed. With them he trapped a Stork that had fractured his leg in the net and was earnestly beseeching the Farmer to spare his life. "Pray save me, Master," he said, "and let me go free this once. My broken limb should excite your pity. Besides, I am no Crane, I am a Stork, a bird of excellent character; and see how I love and slave for my father and mother. Look too, at my feathers-- they are not the least like those of a Crane." The Farmer laughed aloud and said, "It may be all as you say, I only know this: I have taken you with these robbers, the Cranes, and you must die in their company."

Birds of a feather flock together.

Cut out book on solid lines. Fold on dotted line so text is to the inside. Cut out cover graphic and glue to front.





Cut both pages on solid lines. Staple on left side.



At one time the Fox and the Stork were on visiting terms and seemed very good friends. So the Fox invited the Stork to dinner, and for a joke put nothing before her but some soup in a very shallow dish. This the Fox could easily lap up, but the Stork could only wet the end of her long bill in it, and left the meal as hungry as when she began. "I am sorry," said the Fox, "the soup is not to your liking."

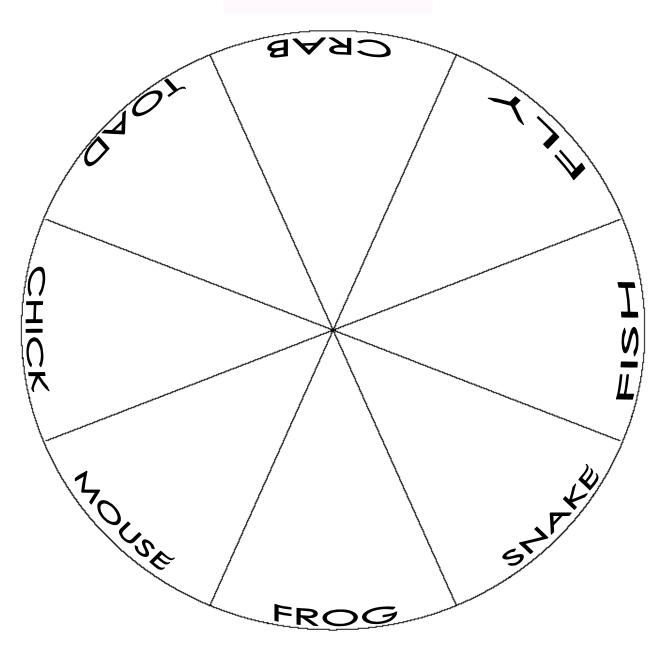
"Pray do not apologize," said the Stork. "I hope you will return this visit, and come and dine with me soon." So a day was appointed when the Fox should visit the Stork; but when they were seated at table all that was for their dinner was contained in a very long-necked jar with a narrow mouth, in which the Fox could not insert his snout, so all he could manage to do was to lick the outside of the jar.

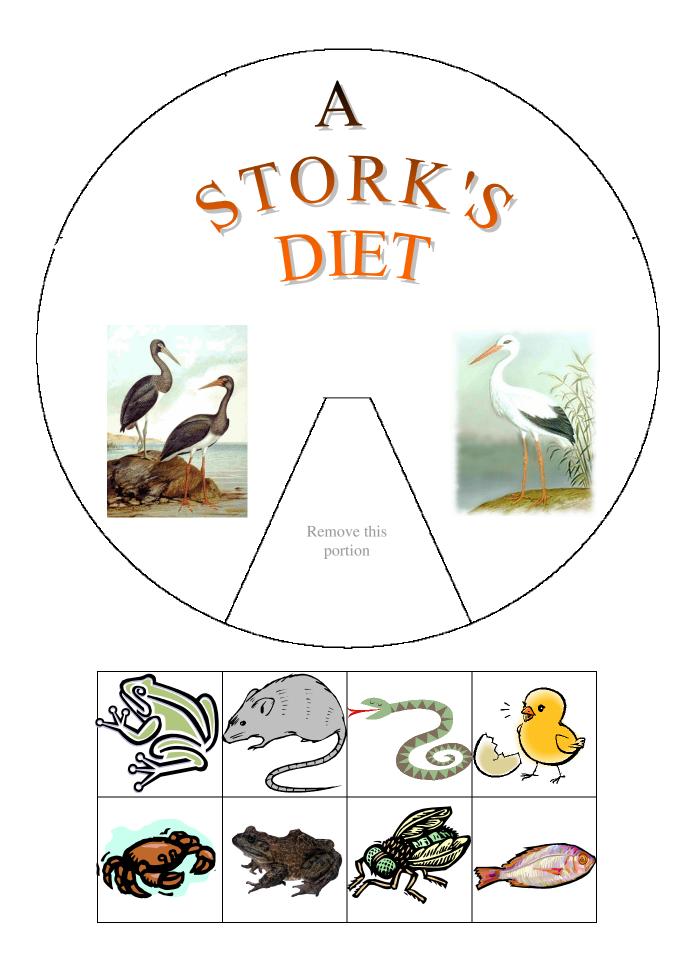
"I will not apologise for the dinner," said the Stork:

"One bad turn deserves another."

Print out wheels on cardstock. Cut out both wheels. Remove portion of cover wheel where indicated. Put cover over other wheel, and insert brad in center. You will turn the wheel to expose pictures of stork prey.

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THE FROGS ASKING FOR A KING BY **AESOP**

The frogs were discontented because no one ruled over them, so they asked Jupiter for a King. Jupiter, despising their folly, cast a log into their pool, and said that would be their King.

The Frogs were terrified by the splash, and jumped to the deepest parts of the pool; but when they saw the log remain motionless, they began to feel such contempt for it that they even took to sitting upon it.

Thinking that King was an insult to their dignity, they sent to Jupiter again, and begged him to take away the sluggish King and to give them another and a better one.

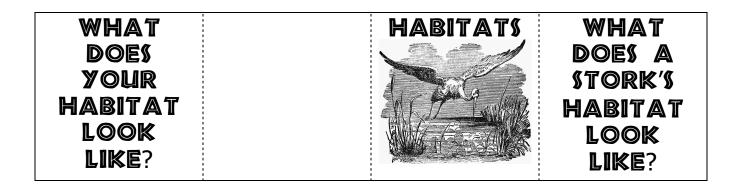
Jupiter sent a Stork to rule them, who arrived and began to catch and eat the frogs as fast as he could.

That governs best which governs least.

Cut on solid lines.

Fold both sides in on dotted lines, and then fold in half on dotted line so cover is on top.

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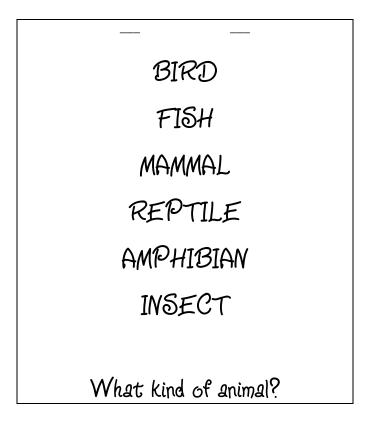
Where do they live?

What do they eat?

How do they protect themselves?

What kind of mouth?

What kind of body covering?

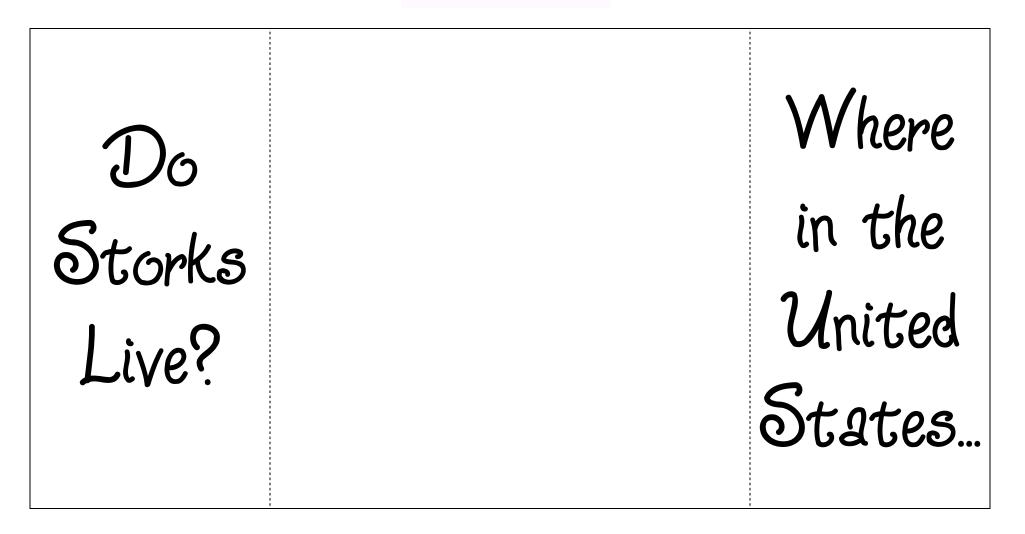


Print out all pages and cut on solid lines. Stack with smallest page on top and staple at top. Fill out info on each page. Glue back of last page into lap/notebook. Cut out on solid lines. Fold each corner on the dotted line so words are to outside. Fold in half on dotted line so that cover is on top. Have child write answers under each flap.

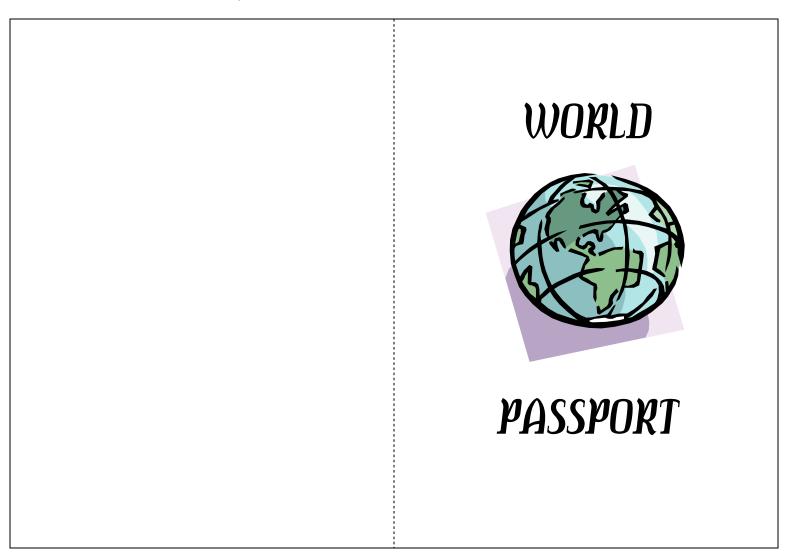
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Cut on solid lines and fold shutter-style on dotted lines. Glue US map under flaps. Color in the states that have Wood Storks.

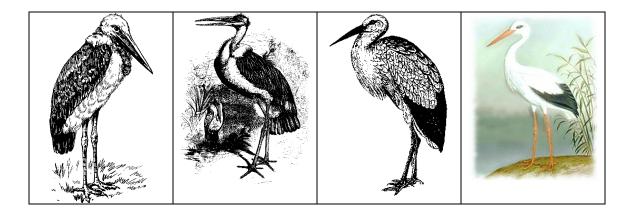






Cut Passport Cover out on solid lines, and fold on dotted line.

Pick you Stork and glue onto identification page of Passport. Pick country your Stork departs from and glue flag or draw picture on Departure Page.



Cut Pages of Passport on solid lines. Fold on dotted lines so text is to the outside. Stack all pages of Passport, with the identification page on top and destination page on bottom, and staple into cover being sure to catch all pages. After child traces route on map, have him record country info on page. Use flags, or child can draw a picture of something the Stork may have seen in the country.

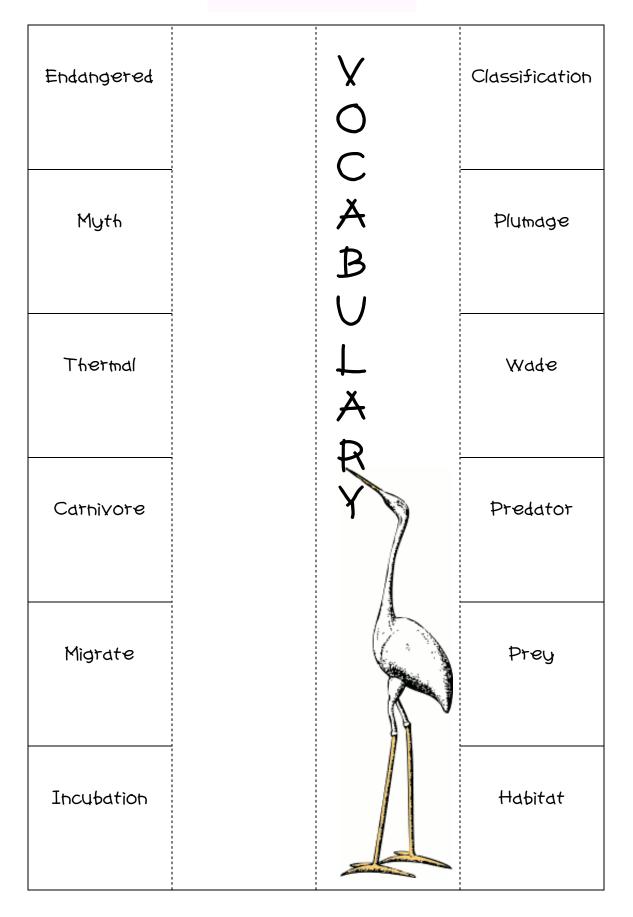
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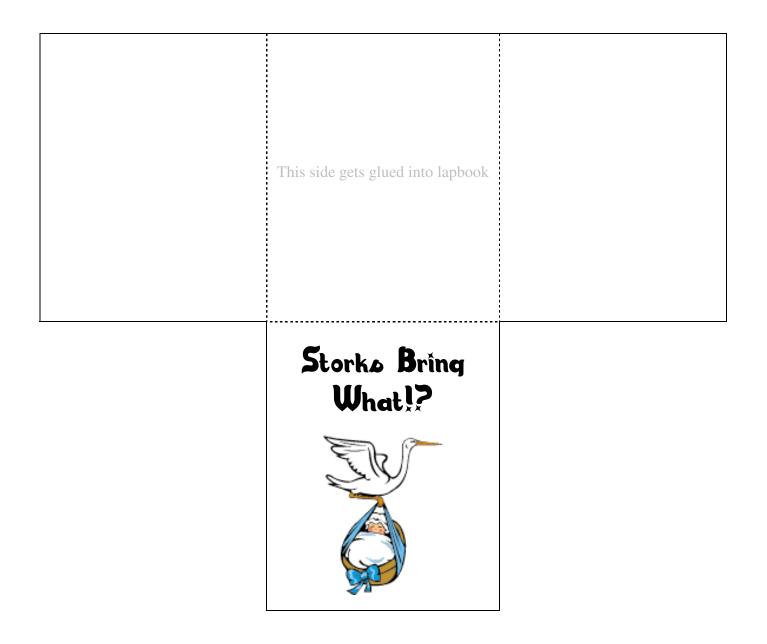
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Cut out on solid lines. Fold on dotted lines. Write definitions under flaps.

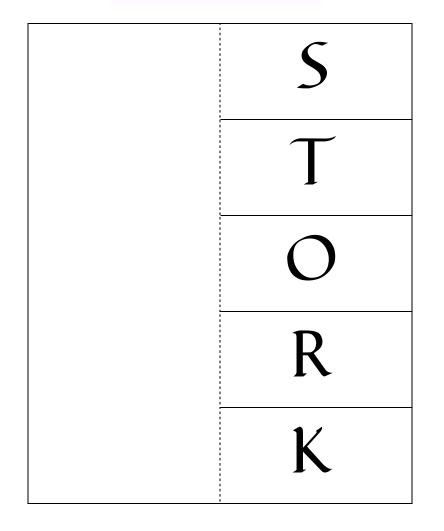
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Cut out book on solid lines and fold on dotted lines. Two side flaps will fold in towards center, and then cover fill fold down. Have child write about or draw pictures of things that storks are said to bring, i.e. babies, good luck, good health, prosperity, etc. Cut on solid lines and fold on dotted lines with text to the outside. Use to record an Acrostic Poem. Each line of the poem will begin with the letter on the flap.

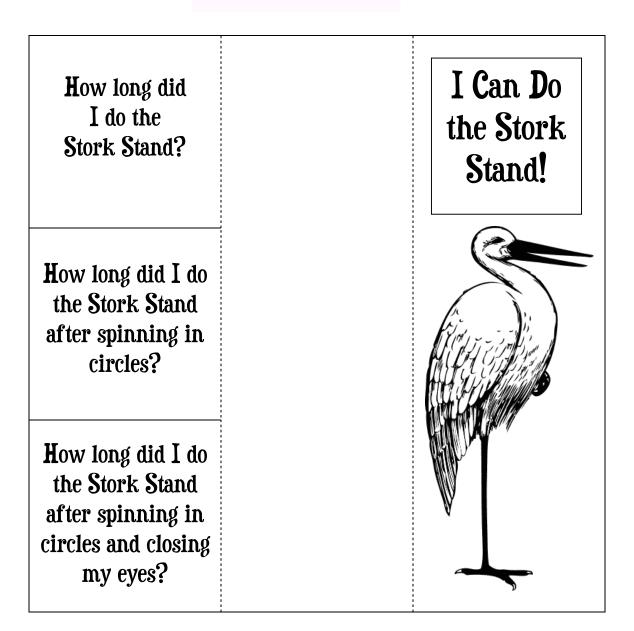
Acrostic poems sometimes rhyme, although they don't have to.



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Cut out on solid lines and fold on dotted lines. Under each flap have child record with tally marks the length of time he could do each stand.

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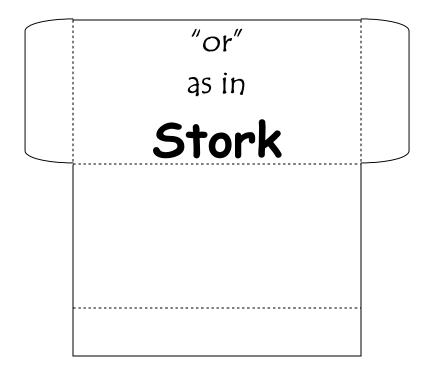


Cut out all the letter cards on solid lines. Form "or" words with cards. Store in pocket when not in use.

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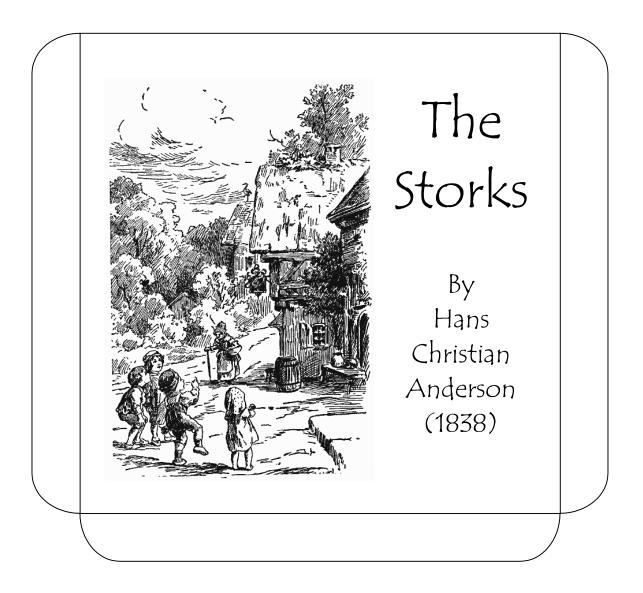
A	В	С	D	E	F
G	Η	Ι	J	Κ	L
M	Ν	0	Ρ	Q	R
S	Τ	U	V	W	У
S	S	Τ	Τ	Κ	Κ
Ο	R	0	R	0	R
Ο	R	0	R	0	R
S	T	S	Ρ	S	Τ

Cut pocket out on solid lines. Fold flaps and pocket back on dotted lines. Glue pocket into lapbook, leaving top flap free. Fold over flap to help keep cards in pocket.

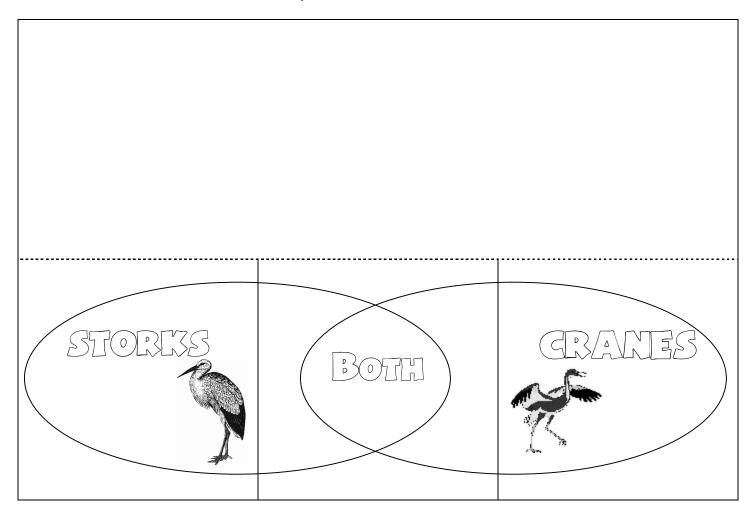


Cut on outside lines and fold under tabs. Glue tabs into lapbook. Use pocket to store printout of *The Storks* from <u>http://pinkmonkey.com/dl/library1/tale100.pdf</u>

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Cut out as one piece on solid lines. Fold on dotted line, so that text is on top. Cut flaps on solid lines. Have child compare and contrast Storks and Cranes.



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