Rechenka's Eggs

Book by Patricia Polacco Unit study by Ami Brainerd

SOCIAL STUDIES

Geography: Russia

Russia is the largest country in the world. It is almost twice as big as the United States. It has eleven time zones! Russia spans across two continents – Europe and Asia. Russia extends from the Arctic Ocean in the north to the Black Sea in the south, and from the Pacific Ocean in the east to the Baltic Sea in the west. It is divided by the Ural Mountains into a European region in the west, and an Asian region in the east.

Let your student do the following mapping activities.

Locate and color: Arctic Ocean, Black Sea, Pacific Ocean, and the Baltic Sea. Mark and label the following cities:

- 1. Moscow, the capital (star)
- 2. St. Petersburg, the second largest city (draw a small circle)

Czars once ruled Russia. The Russian Revolution took place in 1917 and a temporary government was set up. Vladimir Lenin, who was a communist, set up the USSR (Union of Soviet Socialist Republics) in 1922. People were forced to hand over their land to the governments. If you did not like what was going on and spoke out against the communist government, you were in trouble. Communism fell in 1991 and is now the government is a federation.

Landscape/Climate:

Russia has the Caucasus Mountains in the south near the black sea. It also has the Ural Mountains, which separates the European Russia from the Asian Russia. Moscow is located in the European portion of Russia.

The tundra is land in the far north, bordering the Arctic Circle. The climate here is very harsh. The tundra is cold and flat. It has long, cold winters and the soil is always frozen.

The taiga is a large forested area south of the tundra. It extends across central Russia. The land in the taiga is frozen throughout winter but in summer the top layer melts, forming pools and marshes.

Finally, we have flat grasslands called the Steppes. The winter in this area has cold winds, snow and very long dark nights. The summer is hot with dry winds. In the fall the soil of the steppes is turned in the seas of mud from the cold rains. The Steppes are located south of the taiga

Complete the Russia lapbook/notebook printables including:

Russia Landscapes Accordion

Flag of Russia

Russia Map Shutterfold

Matryoshka Dolls Mini Book

Onion Dome Simple Fold Book use as desired to learn more about onion domes

Just for Fun: Play the Russia Bingo game!

LANGUAGE ARTS

Imaginary vs. Real

Most authors include elements from the imaginary realm as well as the real world when writing their stories. This tactic gives the reader some reality to hang on to while at the same time allowing them to escape their own world.

Babushka is a charming character. She notices "miracles" (or unexplainable events) that someone else might take for granted. Some are imaginary and some are real, but Babushka responds to all of these events with wonder. Examine and discuss the miracles throughout the book and you're your child decide if they are real or imaginary. Discuss other miracles (real-life miracles) with your child, too.

Complete: Miracles Mini Book

Vocabulary and Verbs

You can teach the following words as vocabulary, or you can introduce your child to the concept of using vivid verbs in writing, or you can do both. Patricia Polacco uses great verbs throughout this story. If your child is old enough, point out the difference between saying, "She ate the candy." vs. "She *savored* the candy." Why is one better? Why is *hobble* a better word choice than *walked*? Why is *faltered*? You can act all these actions out with your children to show them what the words mean. You can even play a game of pantomime once they learn them –see if you can guess which word they are acting out.

Quiver— to shake with a slight and rapid movement Savor—to taste or smell with pleasure; to appreciate, enjoy, or relish Hobble-to walk or move along with difficulty or limp Falter —to stumble

Are there other action words that Patricia Polacco uses in her story that can be acted out?

Go-along book about verbs: Kites Sail High by Ruth Heller

Lapbook component: Vocabulary Eggs

Language: Russian

Babushka—old woman/grandmother dacha—a small house Kulich—a sweet Easter Bread Pashka—a spread of cheese

Math: Geometry – Patterns

In the story, it says that Babushka uses "shapes of stars, flowers, triangles, and circles..." You can make manipulatives for your younger child (maybe cut out triangles, circles, and stars) and put them in a pattern. Ask her to replicate your pattern. For your older child, you can draw a pattern on paper. Ask him to finish

the pattern. You can even use different colors and see if he can complete the pattern as you have. You could also use number patterns (2,4,6,8 or 1,2,4,5,7,8 or 1,2,4,8,16). The possibilities are endless.

Lapbook Components: Math Patterns Colors Math Patterns Numbers

Math: A Dozen

"Every morning for twelve mornings there was another egg..."

You can use this phrase to teach your child the concept of a dozen (12 eggs, 12 cookies, etc.) Ask your child: If there was one egg every day for 12 days, then how many eggs? If your child doesn't understand cut out some pretend eggs or use plastic or even real ones. Tell them that twelve eggs is a dozen. In fact, twelve of anything is considered one dozen. Do you have a dozen Legos? Help them as needed, but have them find dozens all over the house. If your child is older, you can show them that 1 dozen is 12; 2 dozen is 24; 3 dozen is 36, etc.

SCIENCE

Oviparous Animals

Talk with your student about eggs. Who lays eggs? You can read the poem ("Eggs") to your student if you wish. If not, just mention that birds, fish, reptiles (lizards, alligators, dinosaurs, snakes), amphibians (such as frogs), and insects all lay eggs. If you think your student would enjoy it, get some colored plastic Easter eggs and "hide" pictures of animals who lay eggs in each egg. Let your student "hatch" the eggs and make a chart of the animals who lay eggs. Once your student opens all the eggs, talk about some animals who don't lay eggs and add them to your chart, too.

Eggs

Eggs! Eggs! Who lays eggs? Hens lay eggs. That I knew Only hens? All birds do! Only birds? Not true! Fish lay eggs and quite a few! Birds and fish and insects too! And reptiles and Amphibians do! Who's in an egg? Someone new! Time to hatch Open, you Eggs! Eggs! Eggs!

You could also read the book, *Chickens Aren't the Only Ones: World of Nature Series* by Ruth Heller.

Lapbook Components: Oviparous Fan Booklet Eggs Poem (younger) Eggs Copywork Book (older student can copy the poem and other poems on the lined pages)

Egg Dissection

You could hard boil an egg with your student. As you crack it, note the outer shell, inner shell (membrane—the thin white layer that comes off with the shell), the yolk, and the albumen (egg white). You may or may not want to mention to your student that the eggs we eat are *not* fertilized (do not have a baby chick growing inside).

Lapbook Component: Egg Anatomy Shape Book

Chemistry: Making a Soft Egg

Tell your child that calcium is what makes their bones and teeth strong (hard). Then, ask them what they think makes an egg strong enough for Babushka to paint on it? It's calcium! In this experiment, they will learn that vinegar can remove the calcium from the egg and make it soft.

You will need: 2 Raw Chicken Eggs Vinegar Plastic Spoons (2) Clear Plastic Cups (2) Allow your child to put an egg in a clear plastic cup. Cover it with water. Write water on the outside of the cup with a permanent marker. Allow your child to put another egg in a clear plastic cup. Cover it (completely) with vinegar and label the cup. Discuss that you are going to watch the eggs over the next few days to see if the hard shell (hard because of the high calcium content) can withstand the water or the vinegar. Compare the two eggs every day. After the shell on the vinegar-ed egg has been eaten away, talk about why. Just for fun, allow the child to pick the egg up with a plastic spoon—be very careful (outside may be best!). Have her drop her egg (about 4-5 inches). What happens? How many times can she drop it before it breaks? Also mention to your child that some animals (some reptiles) have "soft" eggs like this one without the shell.

Egg Experiment

Supplies Needed: a chicken egg jar (mouth of the jar slightly smaller than the egg) saucepan water hot pads or mitts

- 1. Put water in saucepan. Place egg in saucepan. hard boil egg on stove. Allow egg to cool.
- 2. Once egg has cooled, remove shell.
- 3. Turn on the hot water faucet and let it run until the water gets hot. (Water must be very hot.)
- 4. Fill the jar with hot water, carefully. Let the water sit in the jar for 3 4 minutes.
- 5. Pour out the hot water -- in order to avoid the wrath of the Parent Wizard -- pour water into the sink.
- 6. Place the egg on top of the jar. (Chant: Big bop, big drop; Big bop, big slop!)
- 7. Watch. The egg will quickly be sucked into the jar.

Hot air takes up more space than cool air. The air inside the jar was hot. When the egg was placed on top of the jug it kept any outside air from getting into the jug. As the air inside the jug cooled, it took up less space. The pressure dropped. There

was greater air pressure pushing down on the egg than pushing against it. The outside air forced the egg to be sucked into the jar.

ART

Painting Eggs

Painting Eggs is called *Pysanky* and is a very important part of the Easter celebration in the Ukraine. Let your child know that different people in different parts of the world celebrate holidays differently. We do color Easter eggs here in the U.S., but we don't really paint them—not in the way that Babushka does. You may want to look up more about the history/culture of *Pysanky* if your child is interested.

There are many different ways you can paint eggs with your child. If you have a younger child, you may want to consider picking up some wooden eggs and acrylic paints at a craft shop. You may want to have your child paint the egg one color (allow it to dry) and then use a toothpick to add details. For a really young child, you could even get a plastic egg and allow them to add stickers. You could also wash an egg, poke holes on the top and bottom and blow it out (like Babushka did!). You may want a few of these for backup in case it breaks as your child is working on it. You would probably want for them to paint this with a good set of watercolor paints. If you are feeling really artsy, have your child(ren) create an egg tree.

For your older child, you may consider the following egg painting technique.

Materials:

Raw Egg Yellow, Blue, Red food dye No. 2 Pencil White Wax crayon Small plastic margarine tub filled with crumbled white tissue paper Fine felt tip marker Acrylic Spray, if desired

Directions:

1. Draw a design on paper...repeat lines and symbols to make patterns and create symbols

2. Dye each egg yellow

3. As the dry egg rests in the nest of tissue paper, the student copies his design onto the egg with pencil

4. The white crayon is then used to cover any part of the egg that will remain yellow

5. After three layers of white crayon, the egg is then dyed with the second color (either red or blue)

6. Two holes are then poked in the ends of the egg and then contents are blown out

7. Place the blown egg into the microwave for 7 to 10 seconds until the crayon wax begins to melt.

8. Wipe the softened wax away with paper towels

9. The student uses a fine tip marker to outline the shapes and add details10. If you want to make the egg more durable, spray it with clear acrylic spray in a well-ventilated area

Watch a video of women painting eggs!



Design and Patterns

Look through the book again with your child noting the different patterns Polacco has used. Try to reproduce one of her illustrations. With your younger child, the snow page (where the caribou first come) would be easy to replicate. Use a piece of blue construction paper or paint a piece of paper blue and give your child a foam stamp (found at most crafty type stores) to dip in white paint and make a "pattern" illustration. For your older child, you may want to try one of the more complex pages Look for the page that starts with, "the festival was bright and exciting"—You may want to trace (or have your child trace) the figures and then allow your child to fill in with patterns like Polacco's or try some of her own.

Lapbook Component: Make designs and patterns on the blank eggs then stick them in the basket.

Cooking

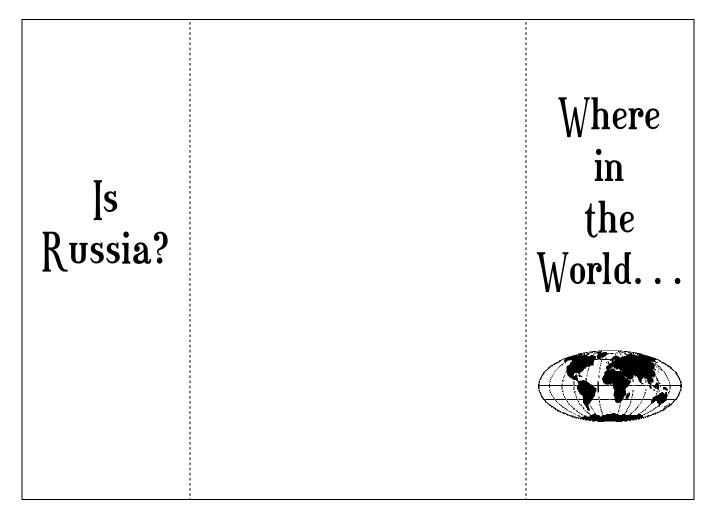
Check the internet for recipes for Kulich (sweet Easter bread) and Pashka.

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Russia
Flag of RUSSIA

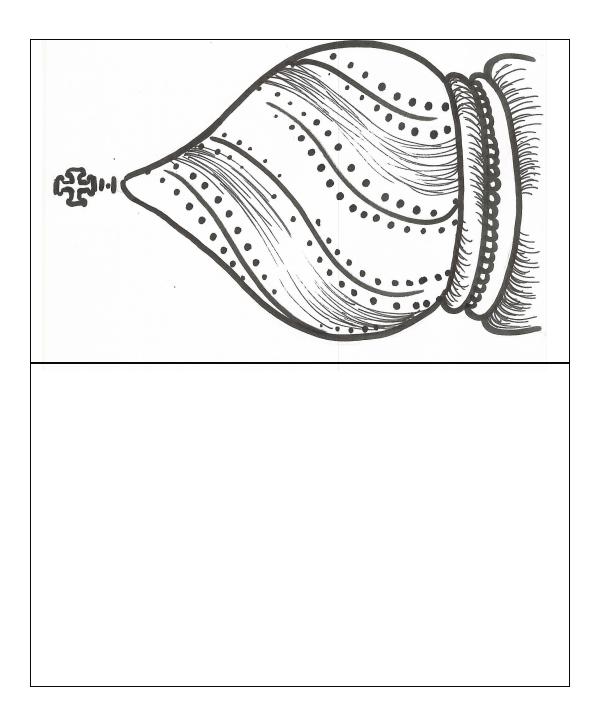
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Cut "Flag of _____" book out as one piece. Fold in half. Cut out flag. Color. Paste inside book. Older students may want to write a few flag facts in the book as well.



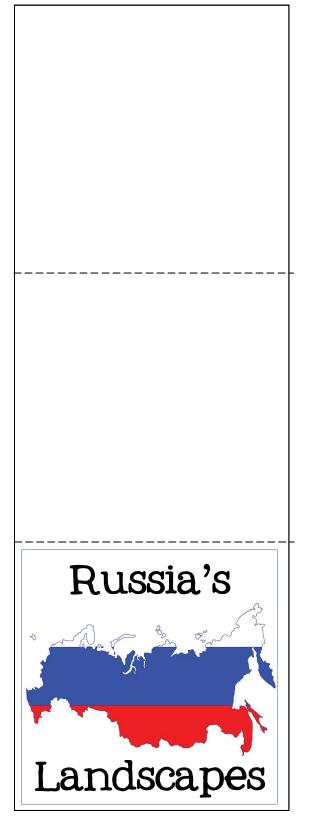


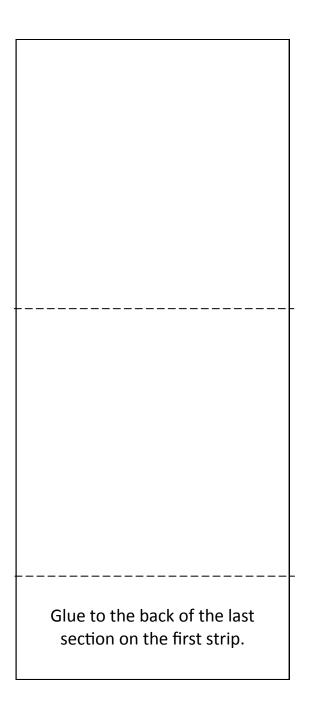
Cut out shutter book and map on solid lines. Fold shutter book on dotted lines so that words are on cover. Glue map into book under shutters.



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Cut book out as one piece. Fold in half.





Cut on solid lines. Glue together. Fold using dotted lines as your guide. Your mini book should look like an accordion when you finish. Glue the back of the book to your lapbook.

Write one landscape on each piece. Draw a coordinating illustration. Cut out book on this page as one piece. Fold in half. Set aside. Fold next two pages in half on dotted lines. Cut around the outside of each doll. The smallest doll does not need to have the extra folded paper. Cut the paper off or glue the two sides together. Take the largest doll (#1) and open it. Glue the back side of doll #2 inside doll #1. Take doll #3. Glue the back side of the doll #3 and glue it to the inside of doll #2. Take doll #4 (the smallest). Glue the back to the inside of doll #3. Glue the back of doll #3. Glue the back to the inside of doll #3. Glue the back of doll #3. Glue the back to the inside of doll #3. Glue the back of doll #3. Glue the back to the inside of doll #3. Glue the back of doll #3. Glue the back of doll #3. Glue the back of doll #4 (the smallest).





Matryoshka

A Matryoshka doll is also called a Russian nested doll. It is a set of wooden dolls within smaller dolls.









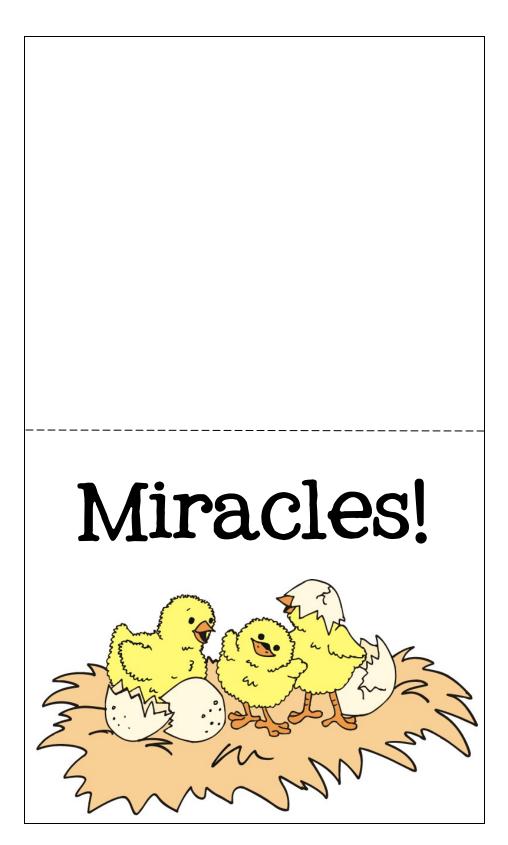


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RUSSIA BINGO

Pysanky Eggs	Ballet	Samovar	Nesting Dolls	Flag of Russia
Ice Hockey	Lake Baikal	Borscht (beet soup)	Brown Bears	Onion Dome
Moscow (capital city)	Nerpa (Baikal Seal)	Caviar (tiny fish eggs)	Piroshki (small pastry)	Ruble (unit of money)
FREE SPACE	Peter & the Wolf	Peter Tchaikovsky	Yuri Gagarin	St. Basil's Cathedral
Czar (ruler)	Grandfather Frost	Tagai (cold forest)	Chess	Red Square

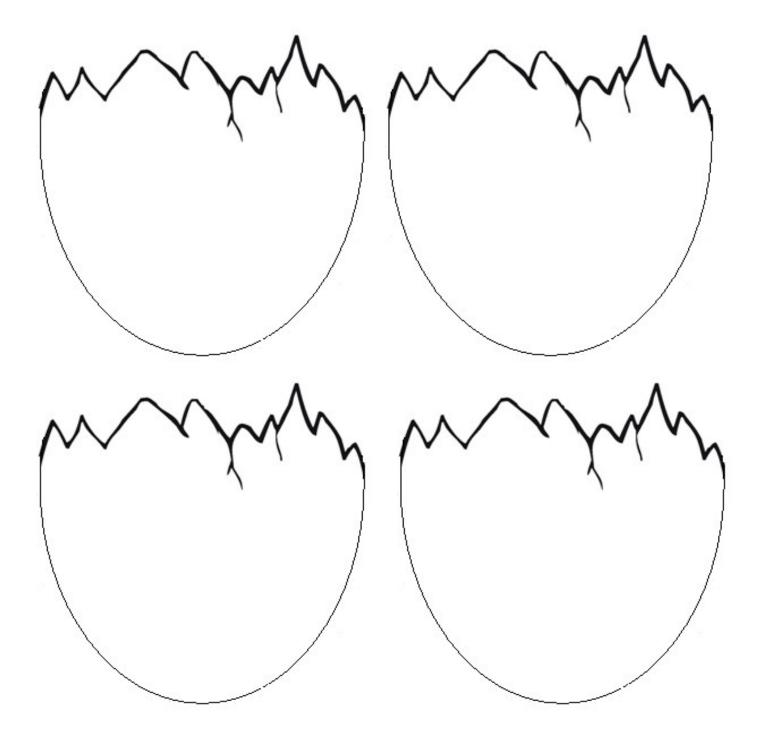
printed on cardstock. Play as you would play regular bingo. Cut out pieces and glue them on to the previous page to make a unique bingo board. Previous page best



Use the pieces on the page to record Babushka's miracles and your miracles! Cut them out and paste them inside this cover piece to make your book.

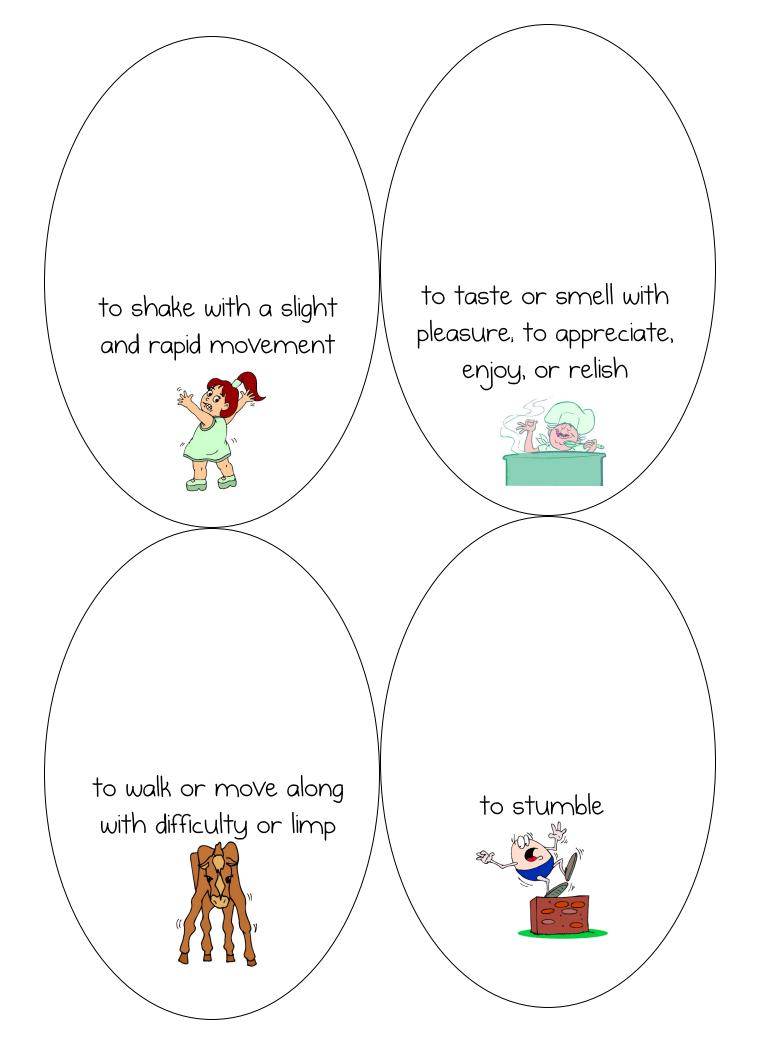
Babushka's Miracles	Real	Not Real

My Miracles

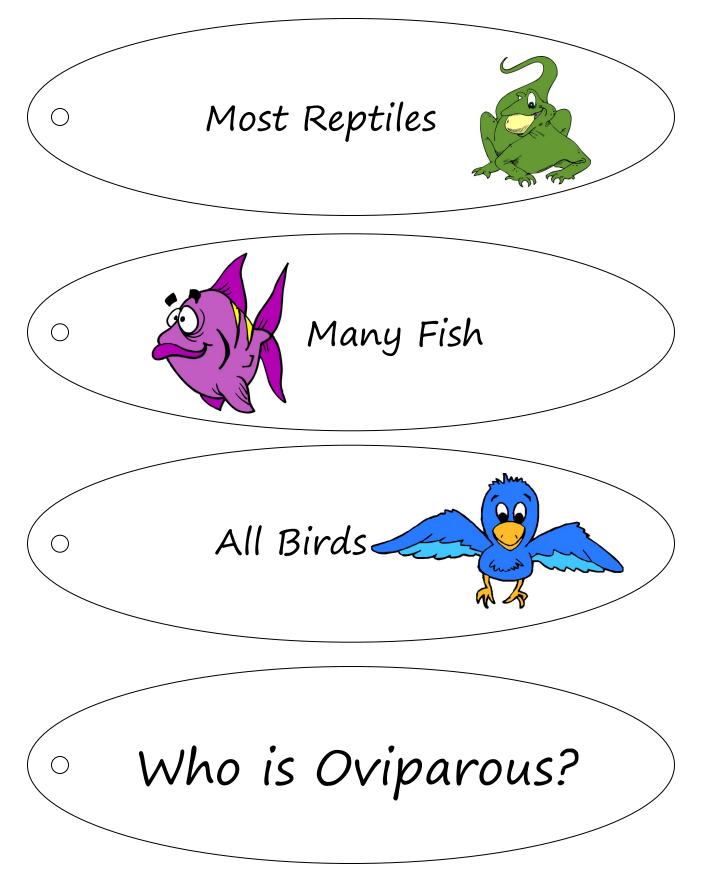


Cut out the four eggs and the four cracked shapes. Place a cracked egg on top of a whole egg. Attach the two together with a brass fastener at the bottom of the egg. Repeat with each egg. Let your student write the appropriate vocabulary word at the top of each egg (above the cracked area). When she moves the cracked portion, she will be able to see the definition and picture.

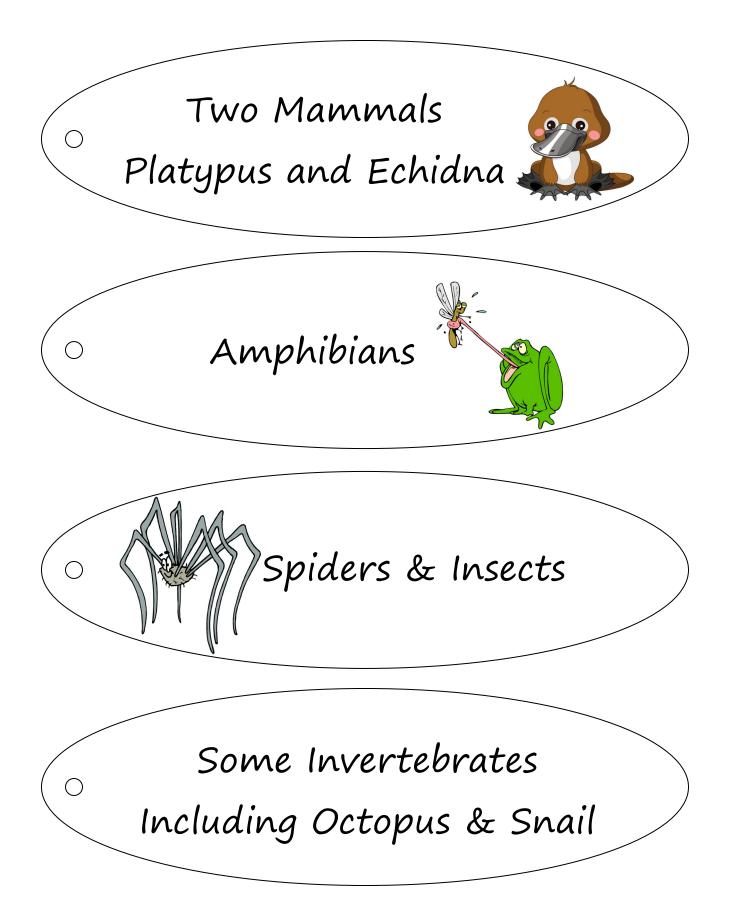
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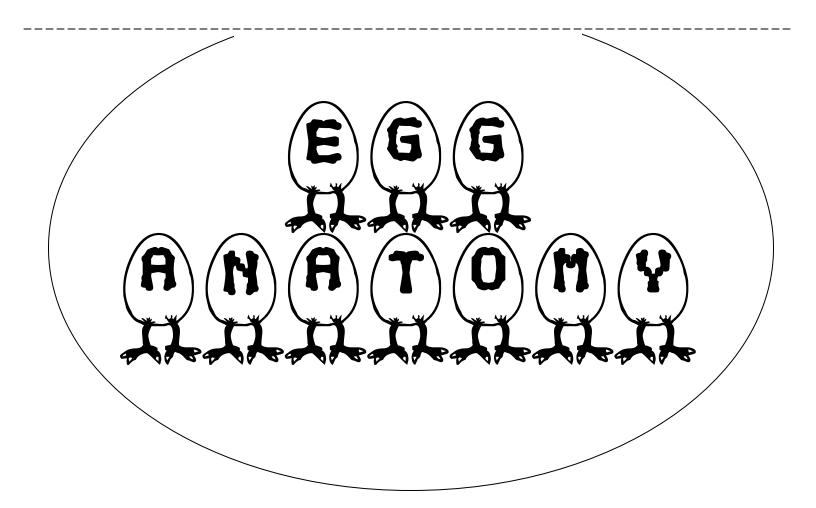


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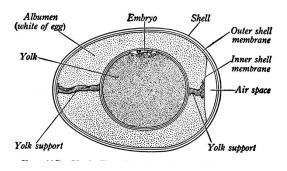


PRINT ON CARDSTOCK. Cut each piece out on the solid black lines. Attach with brass fastener where indicated.





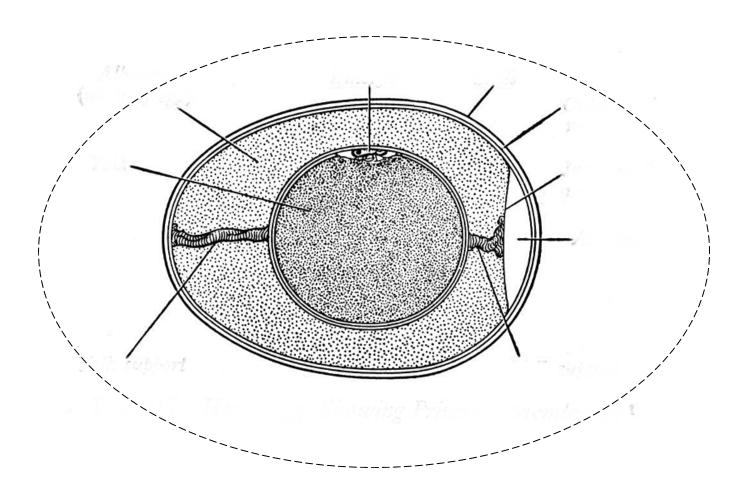
Answers:



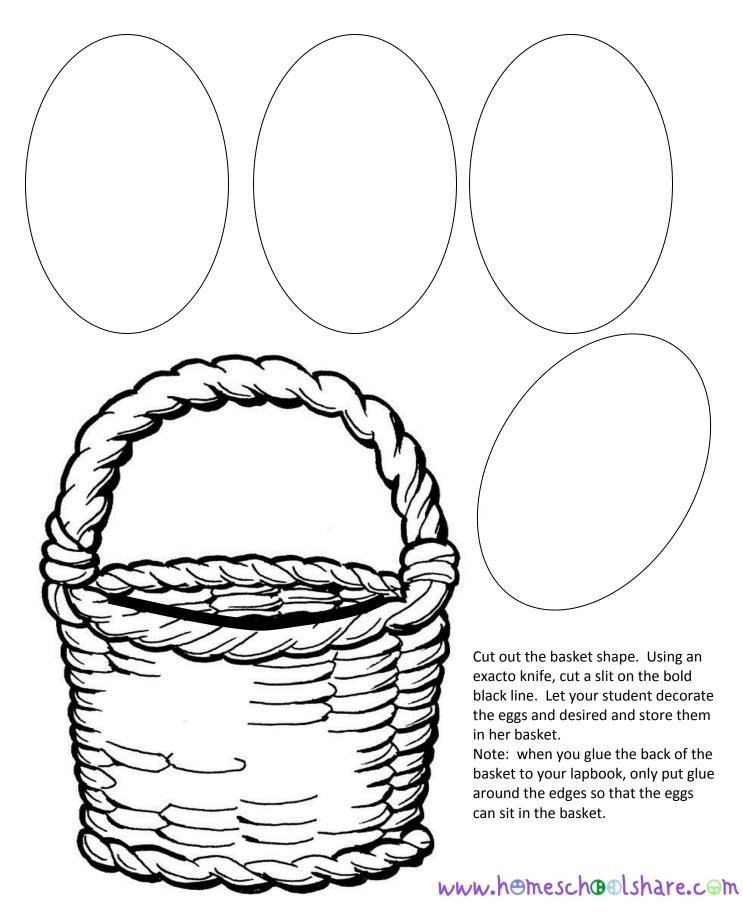
Fold previous page in half on the dotted line. Cut around egg shape.

Label egg on this page. Cut on the dotted lines and paste it inside your egg shaped book.

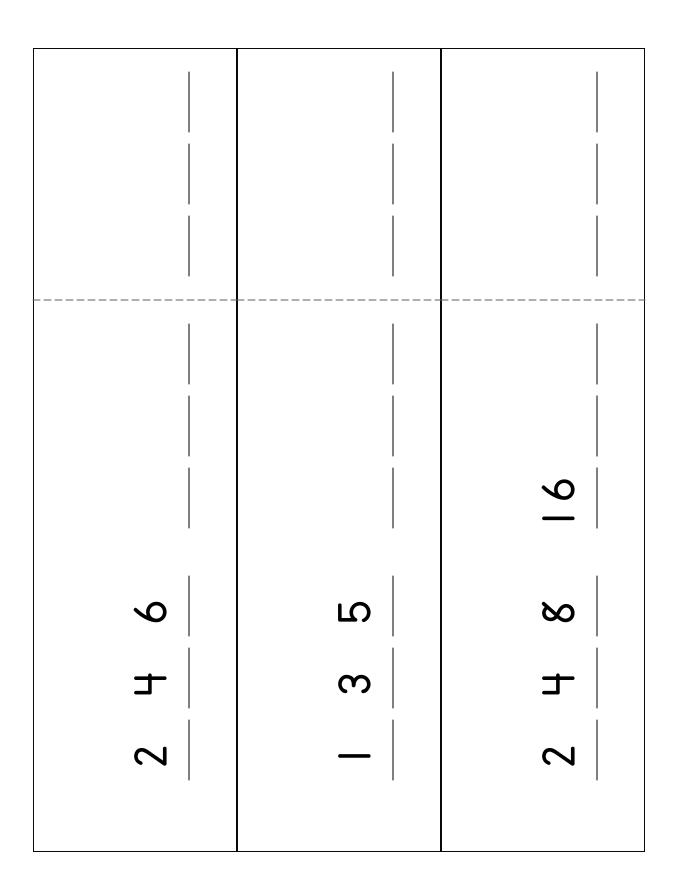
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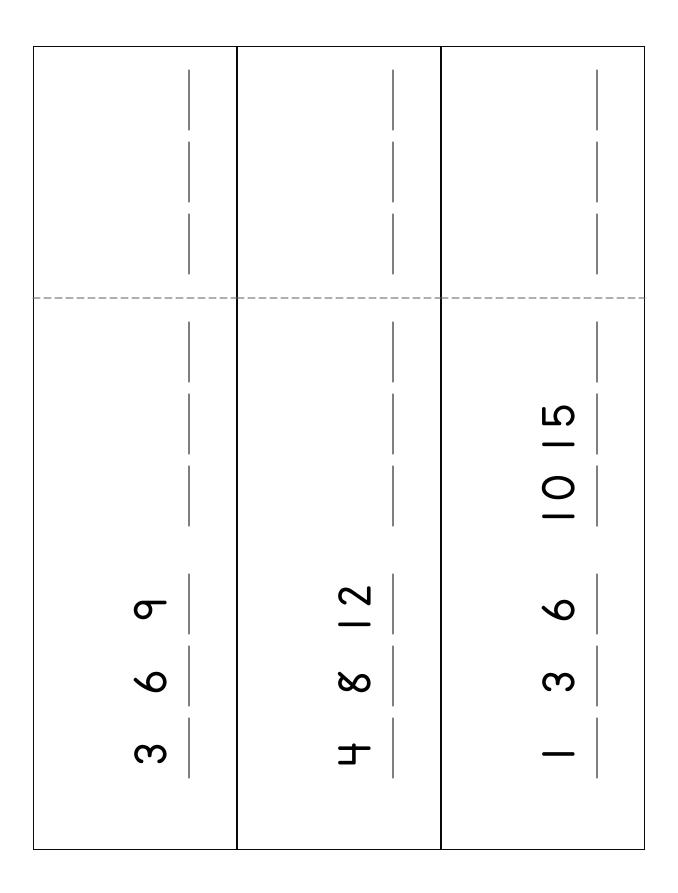
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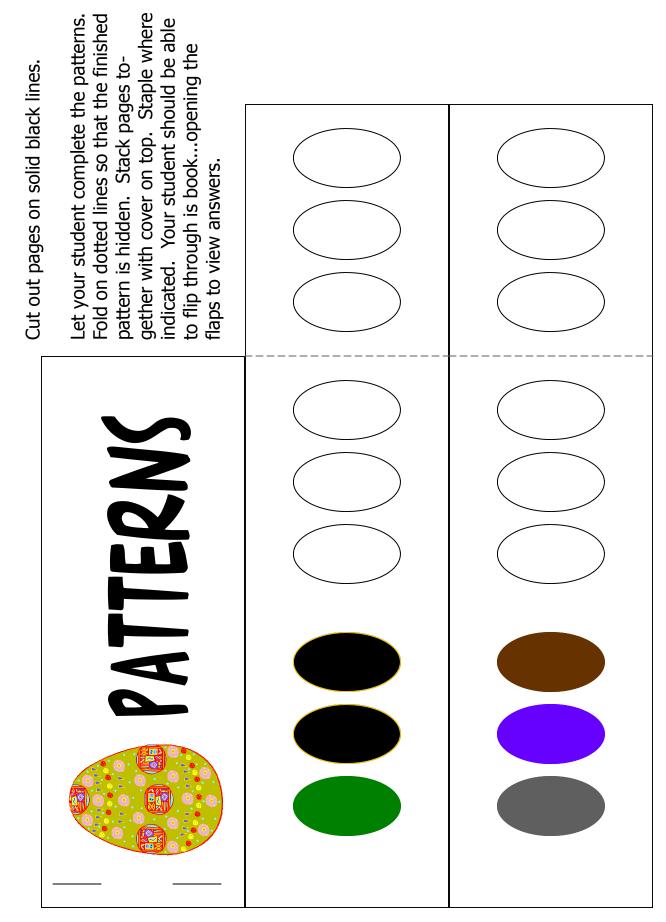


		Cut out pages on solid black lines. Dis- card any pages that are too easy/ advanced for your student.	Let your student complete the patterns. Fold on dotted lines so that the finished pattern is hidden. Stack pages together with cover on top. Staple where indi- cated. Your student should be able to	flip through is bookopening the flaps to view answers.
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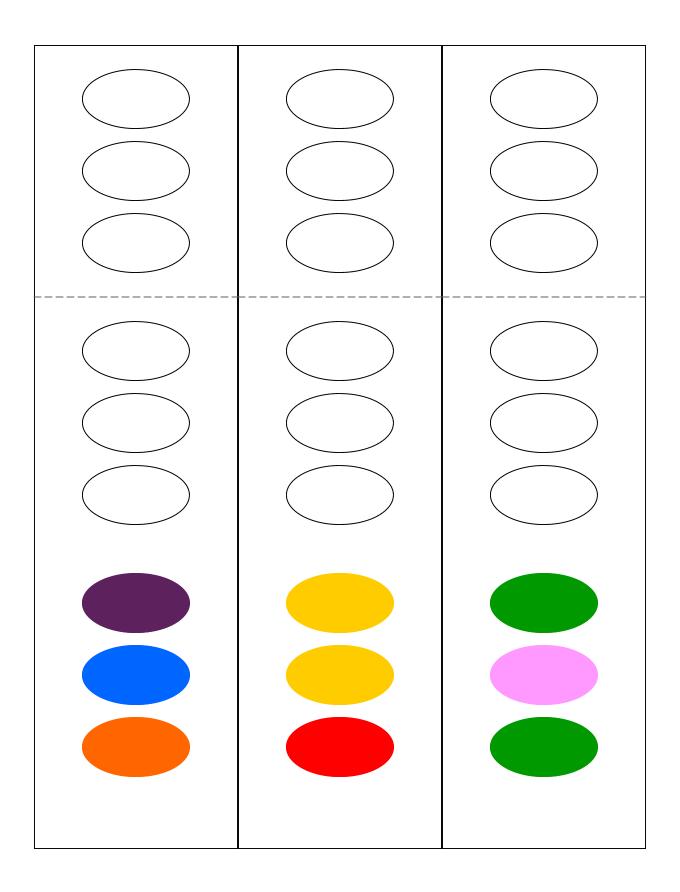


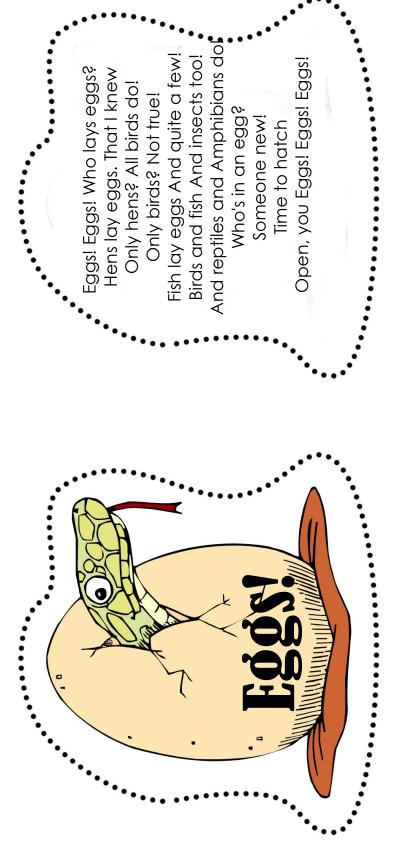
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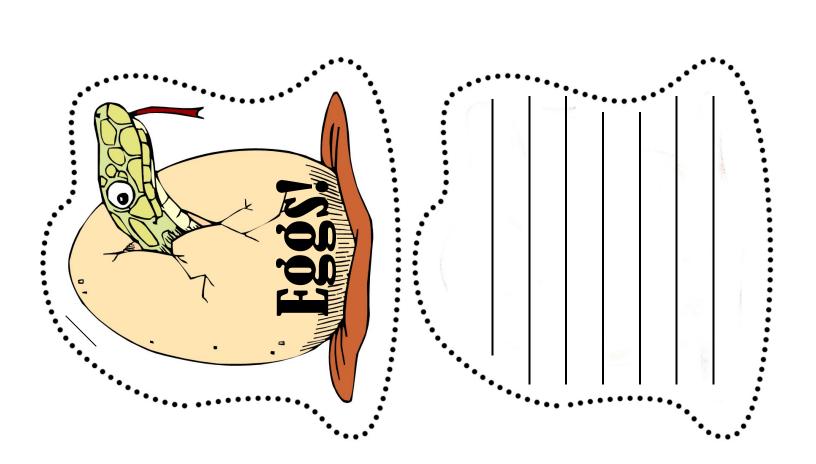
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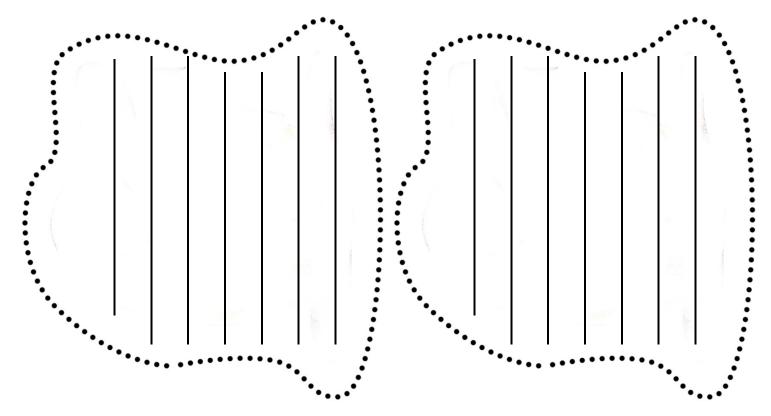




Cut out both pieces. Attach with a brass fastener or staple.

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Cut pieces. Let your student copy the poem about eggs on to the pages; alternatively, he could write egg facts or other information learned during this unit. When finished, stack together and staple on front cover where indicated.

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