

# BABY Loves Holidays with Science

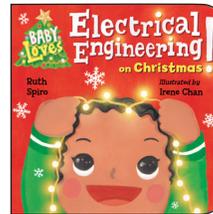
## ACTIVITY GUIDE

### Table of Contents

Hanukkah	2
Christmas	3
Chinese New Year	4
St. Patrick's Day	5



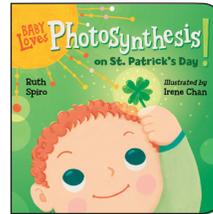
978-1-62354-190-3



978-1-62354-191-0



978-1-62354-306-8



978-1-62354-307-5

Celebrate with family,  
friends, and physics!

### Praise for Baby Loves Science

"... makes science accessible, relatable, and fun for little ones ..."

– *Brightly*

"... a great way to foster a love of science and a curiosity about the world!"

– *A Mighty Girl*



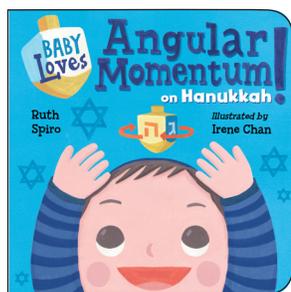
### About the Author

Ruth Spiro is the author of the Baby Loves Science series; *Lester Fizz*, *Bubble-Gum Artist*; and *Made By Maxine*. She holds a BS in communications from the University of Illinois and an MBA from Loyola University of Chicago. She lives in Chicago.



### About the Illustrator

Born and raised in Hong Kong, Irene Chan came to the US to study when she was eighteen. She received her BFA in graphic design from the Savannah College of Art and Design. Irene lives with her family in Atlanta.



## Baby Loves Angular Momentum on Hanukkah!

### About Hanukkah

Hanukkah is a Jewish holiday celebrating a miracle that happened long ago. Jewish people celebrate the eight nights of Hanukkah by gathering with loved ones, lighting the menorah, eating fried foods, exchanging small gifts, and playing traditional games. The dates of Hanukkah change every year but usually fall between the end of November and the middle of December.

### About the Science

Babies are natural scientists—they constantly experiment and learn about how the world around them works and how they can manipulate objects like spinning toys. Angular momentum is the physical property which explains how toys like tops and dreidels spin.

### Does it Spin?

Gather a variety of small toys or household items (such as balls, stuffed animals, blocks, plastic cups, etc.) and ask Baby which ones they think will spin. Try spinning them together and see if your guesses are correct.

### Friction Fun

Wearing your fuzziest socks, shuffle with baby along various surfaces—wood, tile, brick, carpet—and talk about how some surfaces have more friction than others. Spin around together and ask Baby if it's harder or easier to spin on each surface.

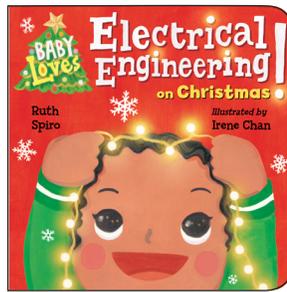
### Baby's Favorite Latkes

Delicious classic potato pancakes, traditionally served with applesauce and sour cream. Caution: this recipe uses hot oil. Makes 12 latkes.

#### You will need:

- 1 large baking potato, peeled
- 1 small onion, peeled
- 1/4 cup flour or potato starch
- 1 tsp salt
- 1 large egg
- oil for frying (choose a high smoke-point oil, like peanut or canola)
- cheesecloth

1. Coarsely grate potato and onion and wring as much moisture out of it as possible with the cheesecloth. Drier vegetables make a crispier latke.
2. In a large bowl, whisk together all other ingredients, then fold in the potato and onion mixture until evenly coated.
3. Heat two tablespoons of oil in a medium-size skillet over medium-high heat until shimmering. Drop packed tablespoons of latke batter into the oil and flatten with the back of a spoon. Fry about a minute and a half, until the edges are golden, then flip and fry another minute until golden on the bottom.
4. Drain latkes on paper towels and keep warm in a low oven until ready to serve.



## Baby Loves Electrical Engineering on Christmas!

### About Christmas

Christmas is a Christian holiday that celebrates the birth of Jesus. Christians celebrate this holiday by going to a special church service, sharing a festive meal with loved ones, and exchanging gifts. Some people observe this holiday on Christmas Eve, the evening of December 24th, while others celebrate on Christmas Day, the morning of the 25th.

### About the Science

Babies live in a world full of electricity. Understanding the energy that heats their food, lights their home, and powers their toys will help Baby understand that it's not magic that does these things—it's science! Electrical safety is also an important skill as curious youngsters gain more mobility and independence.

### Like Repels Like

Use some magnets to talk about polarity and electricity! Baby will be amazed to see that the positive and negative ends stick to each other, while positive and positive ends repel each other.

### Is it Electric?

Go around the house with Baby and ask "Is it electric?" Some decorations and appliances are; some aren't. Talk together about how you know if something is electrical or not and review basic electrical safety.

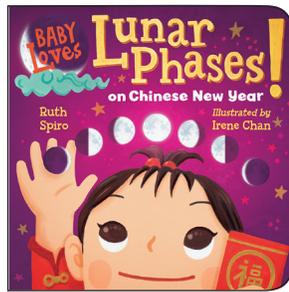
### Baby's Favorite Gingerbread

A sweet and spicy cookie best served cooled with a glass of milk! Caution: this recipe uses an oven. Makes 16 cookies.

#### You will need:

- 3 cups flour
- 1/4 tsp baking powder
- 2 tsp ground ginger
- 2 tsp ground cinnamon
- 1/4 tsp ground cloves
- 1/2 tsp salt
- 1/2 cup butter (1 stick) at room temperature
- 1/2 cup dark brown sugar
- 1 large egg
- 1/2 cup unsulfured molasses

1. Whisk together flour, spices, and salt in a medium bowl and set aside.
2. Beat together butter and brown sugar until fluffy. Mix in eggs and molasses. Stir in flour mixture until just combined.
3. Wrap dough in plastic and refrigerate until cold and firm, about one hour.
4. Roll out chilled dough to 1/4-inch thickness on a lightly floured surface and cut into desired shapes. Set on baking sheets and refrigerate until cookies firm up again, about 15 minutes.
5. Bake at 350°F until crisp but not dark, 12 to 14 minutes. Let cool on wire racks and decorate as desired with icing and sprinkles.



## Baby Loves Lunar Phases on Chinese New Year!

### About Chinese New Year

Chinese New Year is a holiday that marks the end of winter and the beginning of spring. People in China and in Chinese diaspora communities around the world celebrate with parades, fireworks, special foods and clothing, gifts of money, and religious observances in honor of gods or ancestors. It is celebrated on the first day of the first month of the Chinese lunisolar calendar, which usually falls between January 21st and February 20th.

### About the Science

As babies explore the world, they come to understand that we organize our lives in patterns and cycles: the daily routine, the days of the week, etc. The lunar cycle is an excellent baby-friendly way to connect topics like shapes, nature, and the passage of time.

### Stargazing

On a clear night, take Baby outdoors and show them the moon. Is it full? Is it new? Is it a crescent? If possible, repeat this activity a few times over the course of a month and encourage Baby to see how the moon waxes and wanes.

### What Day Is it?

As part of the morning routine, ask aloud, "What day is it?" Indicate the day on a large calendar and make a special occasion of the turnover from one month to another. Babies will especially love the cyclical repetition of the weekdays and come to recognize weekly routines.

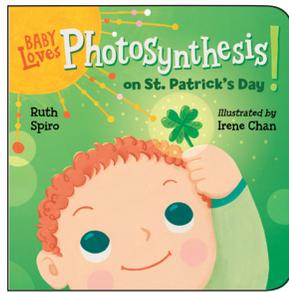
### Baby's Favorite Almond Cookies

These nutty, buttery sweets, shaped like golden coins, are a delicious wish for prosperity in the new year! Caution: this recipe requires an oven. Makes 16 cookies.

#### You will need:

- 1 cup flour
- 1/3 cup almond flour
- 1/2 tsp baking soda
- 1/4 tsp salt
- 1/2 cup butter (1 stick) at room temperature
- 1/4 cup granulated sugar
- 1/4 tsp almond extract
- 2 large egg yolks at room temperature
- 1 tbsp water
- (optional) blanched whole almonds for decorating

1. Sift the flour, almond flour, baking soda, and salt into a medium bowl.
2. Beat the butter and sugar until light and fluffy. Beat in almond extract and egg yolk. Add in the flour mixture and mix until just combined.
3. Cover and refrigerate for 1 hour.
4. Whisk the remaining egg yolk with 1 tbsp of water in a small bowl. Set aside.
5. To form each cookie, roll a tablespoon of chilled dough into a ball and press into a 2-inch flat round. Gently press a blanched almond into the center and brush with the egg wash.
4. Bake at 350°F until the edges are golden brown, 16 to 18 minutes. Let cool about 5 minutes on the sheet before transferring to a wire rack to cool completely.



## Baby Loves Photosynthesis on St. Patrick's Day!

### About St. Patrick's Day

St. Patrick's Day is a Catholic feast day celebrating St. Patrick, the patron saint of Ireland. People in Irish diaspora communities around the world celebrate with parades, traditional music and dances, special church services, green clothing, and special foods. It falls on March 17th, though it's often observed on the nearest weekend.

### About the Science

An essential part of early childhood is developing schemata, a framework for understanding the world. Plants occupy an unusual space in this framework: they appear static, like objects, but are living things with survival needs, like humans and animals. Learning that plants "eat" light through photosynthesis helps youngsters to understand plants' place in the world.

### I Love Green!

Whenever you go out, make a special game of identifying green things. Encourage Baby to make generalizations—plants are usually green, traffic lights are often green, etc.

### Where Do Plants Live?

Plants have specific needs; they don't live just anywhere. Talk with Baby about where plants usually grow and ask what those places have in common. If you have houseplants, encourage Baby to help you water them and move them to sunny spots so they have everything they need to grow.

### Baby's Favorite Soda Bread

This classic Irish treat is best served warm with a pat of butter. Caution: this recipe uses an oven.

#### You will need:

- 4 cups flour
- 1 tablespoon sugar
- 1 tsp salt
- 1 tsp baking soda
- 4 tbsp butter, cold
- 1 cup currants or raisins
- (optional) 1 tsp caraway seeds and/or 1 tsp orange zest
- 1 large egg, lightly beaten
- 1 3/4 cups buttermilk

1. Whisk together the dry ingredients in a large bowl.
2. Work the butter into the flour with your fingers until it resembles crumbs. Then add in the dried fruit, caraway, and zest (if using).
3. Stir the beaten egg and the buttermilk into the flour with a wooden spoon until the mixture is too thick to stir.
4. Gently knead dough with floured hands until just cohesive enough to form a rough ball. Shape into a round loaf, transfer to a large lightly greased cast-iron skillet or baking sheet, and score the top of the dough about an inch and a half deep in an X shape.
5. Bake at 425°F until golden and the bottom sounds hollow when tapped, about 35 to 45 minutes.