

# Pecan Fingerprints

## Background

The pecan is a kind of hickory nut native to the US. It originated in the Mississippi River Valley and was a valuable food to early settlers there. Pecans are high in polyunsaturated fat, the kind of fat that is not bad for you. They are also a good source of vitamins, calcium, phosphorus and iron.

Pecan trees like to grow together in clusters, or groves. They can grow from 70 to 100 feet tall, and their branches will spread from 50 to 100 feet wide. Their roots grow deep. Their leaves are dark green, with a lighter underside. They have very little color in the fall.

Pecan trees have two kinds of flowers. One of the flowers produces pollen, and the other one produces the nut. The nuts grow inside a thin, four-part husk. They ripen between October and December. The nuts fall to the ground when they are ripe. Pecan growers harvest their pecans by picking them up off the ground. Sometimes they knock the nuts down with long poles.

There are many different kinds of pecan trees. Some trees have very small nuts. These nuts are hard to crack but very tasty. Other trees have large nuts with thin shells that are easy to crack. These are called “paper shell” pecans. Their shells aren’t quite as thin as paper, but they are much easier to crack than the smaller pecans.

No two pecans have the same markings on their shells. Each one is as unique as a fingerprint.

## Science

1. Read and discuss background information, then let students examine the pecans to compare the patterns on the shells
2. Have students compare their own thumbs with those of their classmates.
  - Discuss the different ways fingerprints are used (to identify missing persons, in crime investigations, etc.)
  - Hand out the worksheets.
  - Make sure students’ fingers are free of cuts.
  - Students will make prints by rolling their thumbs over an ink pad, then rolling them onto the space provided on the worksheet. They may also cover their thumbs with graphite from the lead of a pencil, press the prints onto cellophane tape, carefully peel the tape from their thumbs and stick the prints onto the worksheets.
2. Have each student grasp a clean glass with one hand. Make sure the print

### P.A.S.S.

#### PRE-K

Science—1.1,2,3

#### KINDERGARTEN

Science Process—1.2

Physical Science—1.2

Reading—4.1

Visual Art—3.1a

Social/Personal Skills—  
2.3

#### GRADE 1

Science Process—4.2,3

Physical Science—1.1

Reading—4.3

Visual Art—3.2

Social Studies—2.4

#### GRADE 2

Science Process—4.2,3

Visual Art—3.2

Social Studies—2.4,5

doesn't get smudged. Sprinkle the print area with iron shavings. Place wide, transparent packing tape over the iron shavings. Lift carefully and stick the tape to a clean sheet of paper.

### Language Arts

1. Pecans grow in clusters. Divide students into groups and having the groups stand together in "clusters." Ask each group to come up with a group definition of the word "cluster" ("a number of similar things growing together").

### Visual Arts

1. Have students create fingerprint animals, using different colored ink pads and markers.

### Social and Personal Skills

1. Make fingerprint cards. Have each student write his/her full name, date of birth and the date the card is made. Print all fingers of both hands on the cards, if possible.

### Social Studies

1. Help students locate the Mississippi Valley on a map of the US to show where pecans originated.

### Materials

a handful of pecans

inkpad or pencils and tape

### Extra Reading

Aardema, Verna, and Joe Cepeda, *Koi and the Kola Nuts: A Tale from Liberia*, Aladdin, 2003.

D'Amico, Joan, and Karen E. Drummond, *The US History Cookbook: Delicious Recipes and Exciting Events from the Past*, Jossey-Bass, 2003.

Emberley, Ed, *Ed Emberley's Fingerprint Drawing Book*, LB Kids, 2005.

Goodman, Barbara, *The Missing Pecan*, AuthorHouse, 2004.

Pfeffer, Wendy, and Robin Brickman, *A Log's Life*, Aladdin, 2007. (Grades K-3)

Stewart, Edna, *The Call of the Christmas Pecan Tree*, Dorrance, 2008.

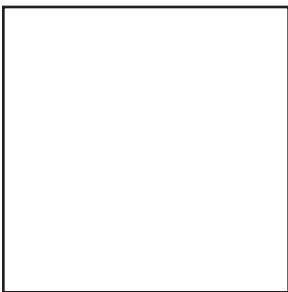
Name \_\_\_\_\_

# Pecan Fingerprints

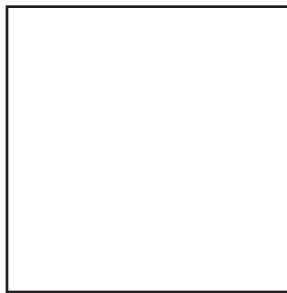
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unique—one of a kind, matchless. A person’s fingerprints are unique to that individual. The pattern on a pecan shell is also unique.

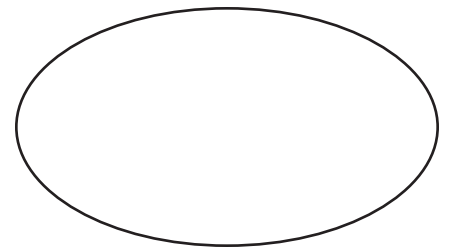
Make prints of both your thumbs on tape, and stick them here. Then design your own pattern on the pecan shell.



left thumb



right thumb



pecan print

Investigate. Write “yes” or “no” to answer these questions.

1. Can you see a pattern in the lines of your thumb print? \_\_\_\_\_

2. Are the two prints alike? \_\_\_\_\_

3. Could you redraw the pecan pattern and make it a perfect match? \_\_\_\_\_