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Watch how the apple tree changes throughout the seasons as you count, tap, pat, rub, touch, shake, jiggle, or wiggle and turn the page.

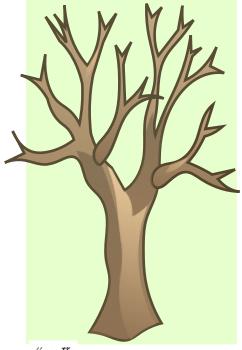
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ATOS Level: n/a

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Early Math Project

Tap The Magic Tree

How does an apple tree change throughout the year?

What is STEAM? Learning through Science, Technology, Engineering, the Arts, and Mathematics. Through STEAM, children problem solve, innovate, create, and collaborate.

STEAM Topics in this Book: changes over time, counting, nature, seasons, plants, life science

Activities To Do Together: Tap the Magic Tree invites children to notice how living things change over time.

Before you read the book with your child:

- Ask your child to tell you how they've changed as they've gotten older or tell them about changes you've noticed.
 Maybe your child has grown a new tooth or gotten taller.
- Notice the different branches on the cover of the book.
 How are they alike? How are they different? Ask your child why they think the branches look so different.

While reading the book with your child:

- Have fun together following the directions in the book and predicting how the tree will look on the next page.
- Count leaves, bees, buds, apples, and birds.

When you have finished reading the story:

- Go outside and look at trees together. Talk about how the trees look compared to the trees in the story.
- Some trees lose their leaves when the hours of daylight get shorter and the temperature becomes colder.
 Deciduous trees lose their leaves. Evergreen trees have leaves all year long. Encourage your child to collect twigs and fallen leaves to create a mural or sculpture of deciduous trees in winter, spring, summer, and fall.
- Take a walk and collect different types of leaves. Notice the shapes of the leaves. Sort the leaves by size, shape, or color. Place a leaf underneath a white piece of paper and rub the side of a crayon over the paper. Notice the vein patterns of the leaves together and ask your child to describe what they see.

Conversations During Daily Routine with Toddlers:

- 1. Outside Time Look at leaves together. Notice the similarities and differences in the leaves you find.
- 2. Snack Time Serve a snack that grew on a tree, apples, oranges, pears, etc. Cut the snack into slices. Count the slices together before you eat them.
- 3. Art Time Collect leaves together. Sort the leaves into groups of big, medium, and small leaves. Glue the leaves onto a pre-drawn outline of a tree. Talk about where the leaves are placed on the tree. For example: Small leaves at the top. What leaves are in the middle and bottom?
- Discovery Time Encourage your child to touch the bark of different types of trees. Talk about how the bark feels. Look for signs of animals and insects living on or near the trees.

Questions for STEAM Thinking:

- 1. How did the tree in the story change throughout the year?
- 2. What type of tree is this story about? Why do you think so?
- 3. What animals did you notice in the story? How do you think the tree is important to these animals?
- 4. What season are we in right now? How do deciduous trees look at this time of year?
- 5. Apples grew on the trees in this story. What else have you noticed that grows on trees?
- 6. The tree on the last page of the story has a nest, two birds, and three leaves. What do you think is going to happen next. Why?
- 7. What you can tell from looking at a deciduous tree?

Early Math Project Resources:

Visit <u>Tap The Magic Tree Activities</u> (www.earlymathca.org/tap-the-magic-tree)

Vocabulary

STEAM words found in the story: again,
breeze, bud, four, leaves,
little, more, once, one,
petals, snow, ten, three,
tree, trunk, two

Related STEAM

words: angiosperm, deciduous, evergreen, fall, gymnosperm, precipitation, seasons, spring, summer, temperature, weather, winter

Words to build reading comprehension: bare, gentle, jiggle, patient, wait, whooshing, wiggle

Related Books: A House for Hermit Crab by Eric Carle; Plant the Tiny Seed by Christie Matheson; Press Here by Hervé Tullet

Click this link to the World Catalog or enter bit.ly/47DDRxC in your browser, to find *Tap the Magic Tree* in the public library.





STEAM EXPLORERS: BOOK GUIDE

Age Level	Related Foundations and Standards: Infant Toddler Foundations Preschool Learning Foundation, Mathematics Preschool Learning Foundations, Science California Common Core State Standards Mathematics Next Generation Science Standards (NGSS)
Infant/Toddler	Memory the developing ability to restore and and later retrieve information about past experiences. Number Sense the developing understanding of number and quantity. Cause-and-Effect The developing understanding that one event brings about another. Classification The developing ability to group, sort, categorize, connect, and have expectations of objects and people according to their attributes.
Preschool/TK	Math: Number Sense 1.0 Children expand their understanding of numbers and quantities in their everyday environment. Algebra and Functions 1.0 Children begin to sort and classify objects in their everyday environment. 2.0 Children begin to recognize simple, repeating patterns. Science: Observation and Investigation 1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment. 1.2 Observe objects and events in the environment and describe them. 1.4 Compare and contrast objects and events and begin to describe similarities and differences. 1.6 Make inferences and form generalizations based on evidence. Earth Sciences 2.2 Notice and describe changes in weather.
Kindergarten	Math: Counting and Cardinality K.CC.4 Count to tell the number of objects. K.CC.5 Count to answer "how many?". Measurement and Data K.MD.3 Classify objects and count the number of objects in each category. NGSS Performance Expectations: Earth and Space Science K-ESS2-1 NGSS Science and Engineering Practices: Asking questions and defining problems; Analyzing and interpreting data
Grade 1	NGSS Performance Expectations: Earth and Space Science 1-ESS1-2 NGSS Science and Engineering Practices: Asking questions and defining problems; Analyzing and interpreting data



