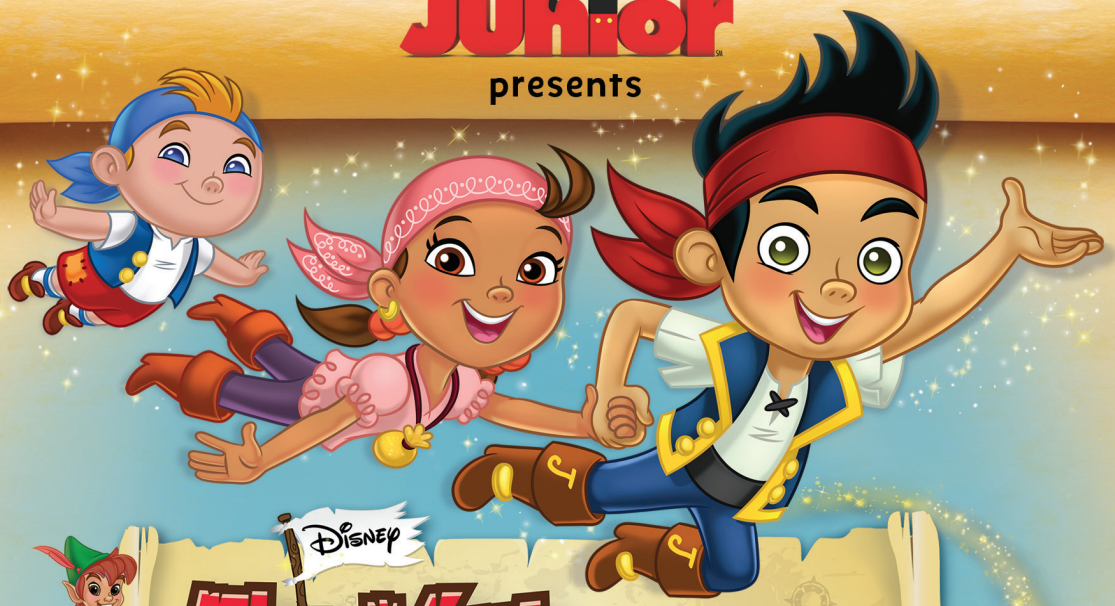
Disney Junior presents



Jake and the Never Land Pirates

Never Land Rescue

Outdoor Adventure!

Go on a Hike & Seek adventure in your own backyard!

TO LEARN MORE, VISIT WWW.HIKEANDSEEK.ORG

National Wildlife Federation® hike & seek™

DisneyJunior.com/NeverLandRescue

Leaf Identification

Trees and plants are key components of the ecosystem – the foundational aspect for which both humans and wildlife depend. Children who participate in this activity will learn:

- How to identify 3-5 trees by their leaves and/or bark
- About different parts of a tree
- How to measure a tree to determine its age

AHOY! HERE'S WHAT YOU NEED!

TIME:
5-10 minutes

MATERIALS:
Leaves, bark and sticks
Crayons
Copy paper
Wax paper
Optional: 3-ring binder, tape and hole punch

Activities

Take a few moments to discuss what a tree is and why a tree is important. Point out some of the different kinds of trees that are around them. Discuss what the parts of the trees are: by using a tree, point to the crown, touch the bark, look for the roots, etc. Talk about how trees help us and what we depend on trees for, including food that comes from trees. Explain that trees can be identified by the different leaves and different bark that each has.

ACTIVITY 1

Use two sheets of waxed paper, place a leaf between the sheets like a sandwich. Then adults only using an iron (on low), with a dish cloth between the wax paper and iron, iron the leaf. It will become sealed between the sheets of wax paper. Then you can add a piece of tape to identify the leaf (the type of tree and time of year) and then hole punch the paper to place in a binder to create an identification book of leaves and bark drawings.

ACTIVITY 2

Have the child select a crayon. Place a sheet of copy paper on the tree bark and using the side of the crayon make a rubbing of the bark. Talk with the children about what is under the bark and what the bark does for the tree. Next, have the child move to a table or other hard surface and make a leaf rubbing. Place the paper on top of the leaf and rub the crayon sideways over the leaf.

- Talk about what the purpose of a leaf is and what is distinctive about the different leaf shapes and textures. Also talk with the child about the two types of trees (deciduous and conifer).
- Wrap up the activity by pointing out a few of the different types of trees and see if they can identify a deciduous from a conifer.

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DID YOU KNOW?

- Trees, like all living things, grow, reproduce and respond to their environment and the conditions they are living in.
- Trees, like all plants, create their food through photosynthesis – taking in light from the sun and changing it into food.
- Trees have a single stem and are perennials – they live for many years.
- Trees have different parts:

  - ***Crown*** of the tree is made up of the leaves and branches.
  - ***Leaves*** provide trees with all their food because they turn sunlight into food/energy.
  - ***Trunk*** of the tree supports the crown and serves as a highway for food made in the leaves to travel to the roots and for water and nutrients from the roots to travel to the leaves.

  - ***Bark*** layer protects the tree from insects and disease, excessive heat and cold, and other injuries.
  - ***Heartwood*** of the tree develops as the tree gets older. It is old sapwood that no longer carries sap, and gives the trunk support and stiffness.

  - ***Roots*** of the tree support the trunk and crown, and also anchor the tree in the soil. They serve as a storage facility during the winter for the food produced by the leaves during the growing season. The roots also absorb water and nutrients from the soil for use by the tree.
- Some of the ways that trees help people and the planet:
  - Produce oxygen which animals and humans need for breathing
  - Clean the air – take pollution out of the air
  - Clean the water – by filtering water and also keeping the soil in place
  - Provide homes – for us and wildlife
  - Provide food for wildlife – nuts, berries, and fruit, like:

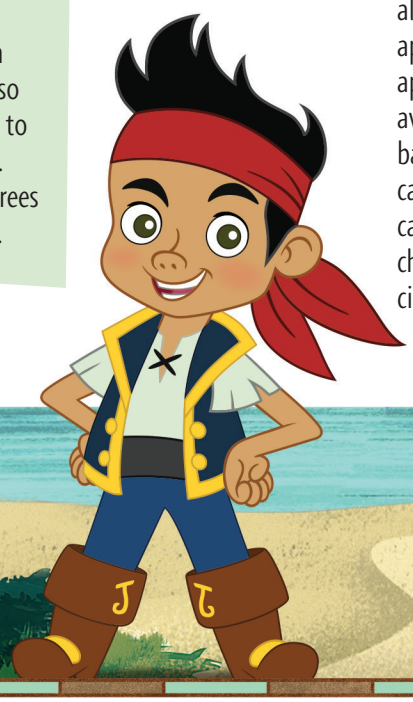
allspice
almonds
apples
apricots
avocados
bananas
cacao (cocoa)
cashews
cherries
cinnamon

cloves
coconuts
dates
figs
grapefruit
lemons
limes
mangos
maple syrup
nectarines

nutmeg
olives
oranges
papaya
peaches
pecans
persimmons
pistachio
plums
walnuts

There are two types of TREES:

- ***Coniferous*** trees keep their leaves throughout the year, shedding only the oldest leaves. Usually these leaves are lower down on the tree and do not receive as much sunlight as newly developed leaves higher up. Some of the best-known members of the conifer family are pines, spruces, firs, and hemlocks. The cones of the conifers are its flowers.
- ***Deciduous*** trees are also known as broadleaf trees because the leaves are generally larger and wider than those of conifers. The larger leaf size means a greater surface area for photosynthesis, but it also means the leaf is too fragile to withstand winter conditions. Therefore, most deciduous trees drop their leaves in autumn.



Insects - Banana Mash

To understand what an insect is and its role. This will help children appreciate the smallest of wildlife in our ecosystem. Insects are often misunderstood and children can be fearful of them. Children who participate in this activity will learn:

- What an insect is
- What the purpose of insects is
- Where insects can be found
- Roles of insects in the ecosystem

AHOY! HERE'S WHAT YOU NEED!

TIME:
5-10 minutes

MATERIALS:
Banana Mash
(Prep time: make the mash two days ahead of time, as the longer it sits, the better it will work.)
Paint brush
Magnifying glass
Insect pictures

Activity

INSECTS AROUND US!

BANANA MASH LIST

- 1 ripe banana
- Bowl and spoon
- Molasses or honey
- Apple cider vinegar
- Old paintbrush

1. Two days before the activity, create "Banana Mash" to paint on trees to attract insects. To make the mash, place all ingredients in a bowl and mash with a spoon. Use the paintbrush to paint the tree or trees with the mash.
2. Talk with children about what an insect is. Show pictures of various insects and discuss the different parts. Talk about what each part of an insect is for – how do they see, how do they feel, how do they move.
3. Using pictures of insects and non-insects, see if the children can guess which are insects.
4. Have the children take a magnifying glass and see if they can find any insects in the yard, including on the tree or trees where you painted the banana mash.
5. Have the children look at the different parts of the insects.
6. Have the children see if they can identify various insects from pictures you hold up.
7. Wrap up the activity by discussing why insects are important.

DID YOU KNOW?

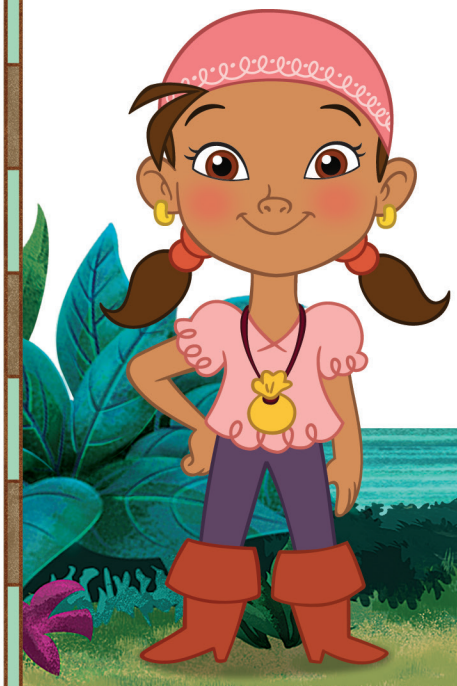
- A class of living creatures within the ***arthropods*** that have a ***exoskeleton***, a three-part body (***head***, ***thorax***, and ***abdomen***), three pairs of jointed ***legs***, ***compound eyes***, and two ***antennae***.
- They are among the most diverse groups of ***animals*** on the planet and include more than one million ***species*** and represent more than half of all known living organisms.

- Insects can have either simple or compound eyes.
- Insects all start out as eggs and then go through 2-4 stages of life.
- Insects can both crawl and fly.

- Insects can be found everywhere in the world.
- Insects help us by aerating the soil, pollinating plants, decomposing materials, controlling other insect populations, carrying seeds, providing fertilizer and many other things.

Some types of INSECTS include:

Ants	Dragonflies	Moths
Bees	Flies	Praying Mantis
Beetles	Grasshoppers	Walking Stick
Butterflies	Mosquitoes	Wasps



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Getting To Know Trees

- Identify products that come from trees
- Learn the tree structures
- Identify trees by shape
- Understand the diversity of trees and tree structures

AHOY!

HERE'S WHAT YOU NEED!

TIME:

About two hours for a nature walk and activities.

Additional time to observe and care for an avocado plant.

MATERIALS:

Card stock
Pencils & Scissors
Shape sheet
Books with pictures of different types of trees
Avocado seed
Toothpicks
Glass & Water

Activity

1. Using the shape sheet on page 8, copy page on to card stock. Identify each shape.
2. As you continue on your walk, find other objects with those shapes in nature – leaves, seeds, fruit, etc.
3. Because different trees grow in different places, use a field guide or the Internet to look at photographs and illustrations to see types of trees not found in your neighborhood. You can try to match the shapes to those trees as well. Use this time to discuss different kinds of trees.
4. Avocado experiment: Remove flesh of avocado from the seed. Peel off the brown covering and stick three toothpicks around the center of the avocado seed. Place the seed in a glass of water with the toothpicks holding the seed so the larger end is submerged in the water. In the weeks to come, the children will enjoy watching the seed split and the stem and root form. Plant the seed in soil when the stem and roots are several inches long.

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DID YOU KNOW?

The basic structures that all trees have in common are: roots, trunk, branches, leaves, stems, flowers, and fruits. Leaves have many variations: some leaves are simple with smooth edges, while some have intricate textures, patterns, and colorations. Many fruits, such as peaches, pears, cherries, pomegranates, lemons and other citrus fruits, plums, nectarines, and mangos, come from trees.

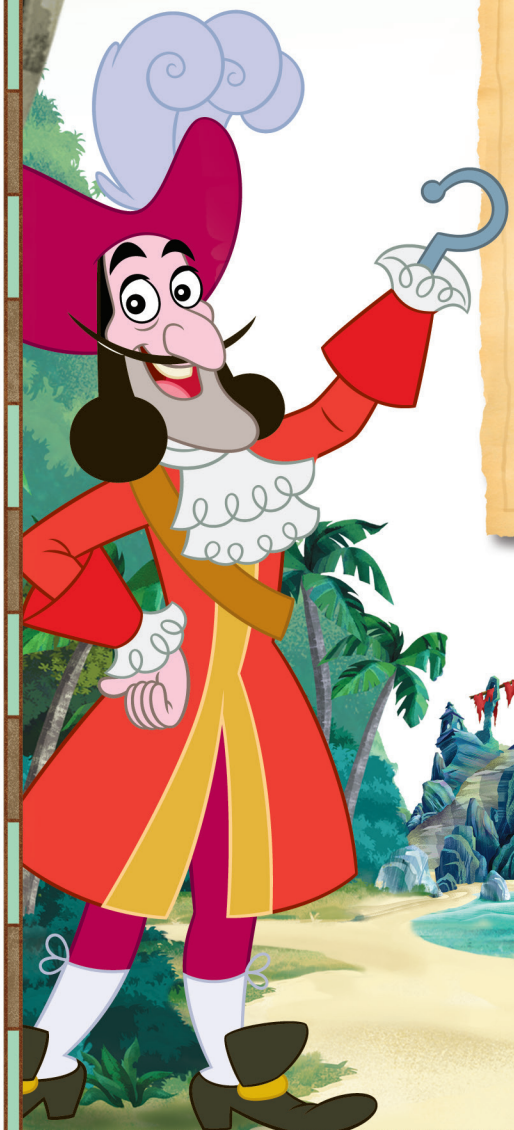
Create a list of how many items come from trees. Ask:

- What kinds of things do you have at home that come from trees? (wooden furniture, books, paper, etc.)
- Look around where we are now – what comes from trees?
- What kinds of fruit grow on trees?
- Who has seen fruit still on a tree? Did you get to pick it?

Extension Activities

- Read a book about trees, such as *The Giving Tree* by Shel Silverstein, *The Tree: A First Discovery Book* by Christian Broutin, or *The Lorax* by Dr. Seuss.
- Create sculpture displays from sawdust. Sawdust can be obtained from many lumber companies at low or no cost. Combine two cups of sawdust, three cups of flour, and one cup of salt. Add water as needed to make a pliable dough that can be sculpted into trees, birds, and other objects of nature. Add water in small amounts as you want the dough to be thick in order for it to hold shape while it dries.
- Search NWF's Activity Finder for nature activities kids and parents can do together: http://www.nwf.org/Kids/Family-Fun/Family-Fun-Search.aspx

Visit BeOutThere.org for all sorts of great tips and resources that make it easy to get your kids in the great outdoors!



GREAT LINKS
to products that come from trees:

http://sftrc.cas.psu.edu/LessonPlans/Forestry/PDFs/FromTheForest_gp_08.pdf

http://www.idahoforests.org/wood_you.htm

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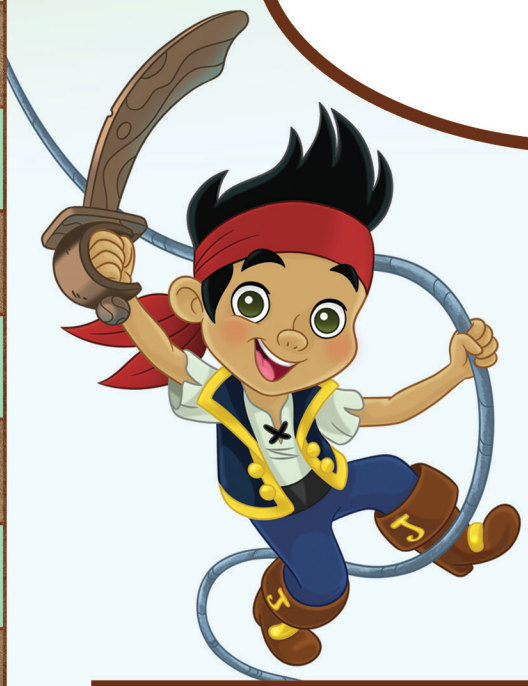
Activity

Match these shapes to the trees you see!

Go outside on a nature walk. Using the shape sheet, compare the overall shape of the trees you pass with the shapes on the sheet. (Remember all tree shapes should be similar – not exactly alike to triangles, circles, ovals, etc.)



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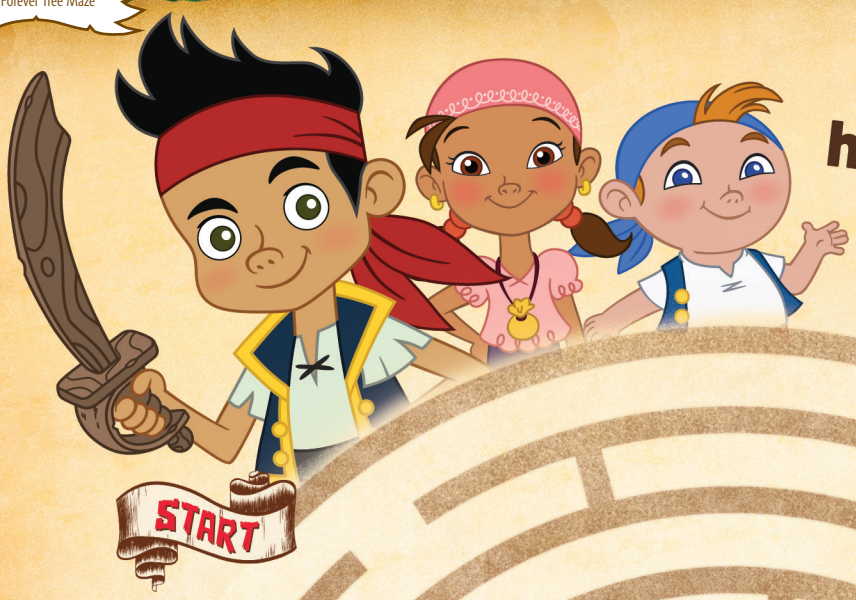
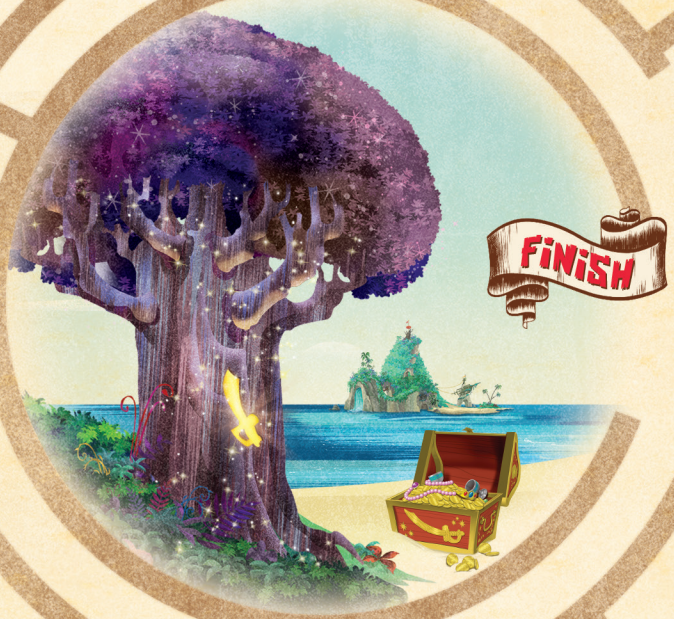
Forever Tree Maze

Help JAKE and his friends find the FOREVER TREE



START



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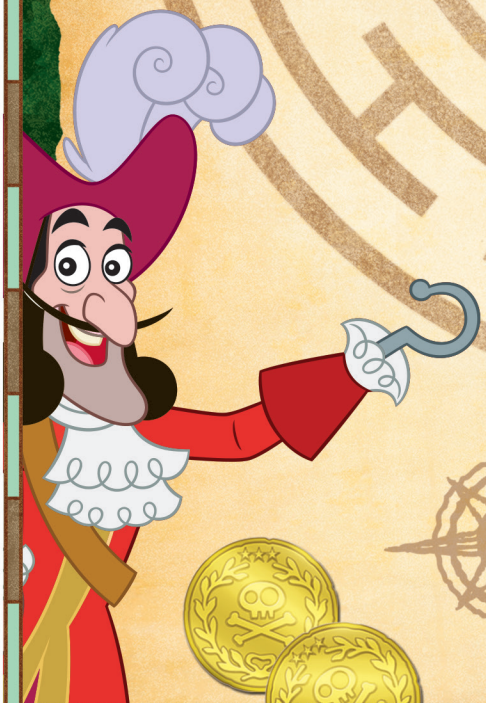

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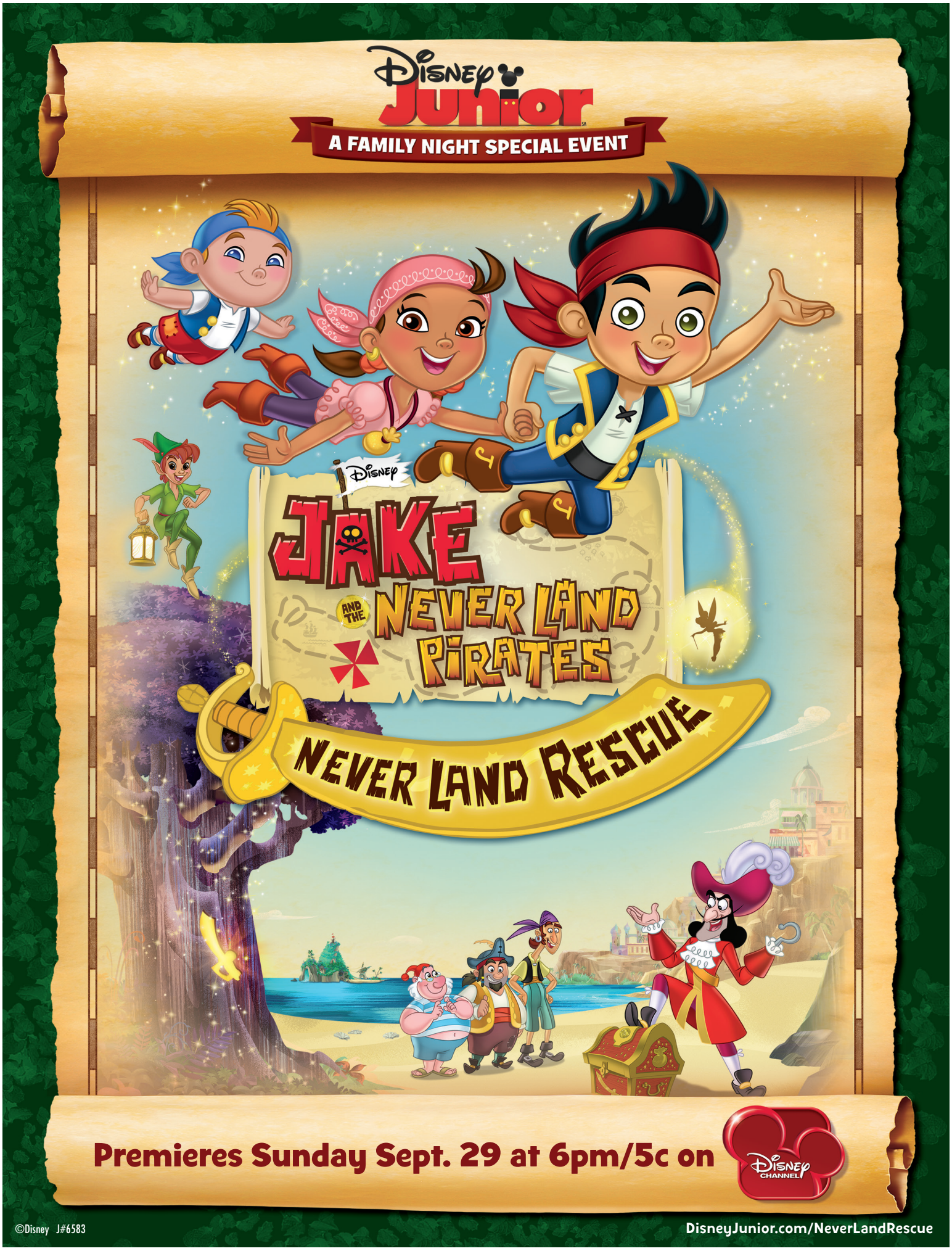
Disney Junior
A FAMILY NIGHT SPECIAL EVENT
Disney
JAKE AND THE NEVER LAND PIRATES
NEVER LAND RESCUE
Premieres Sunday Sept. 29 at 6pm/5c on
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