



## Tree Bark Investigation

### Explore the Arnold Arboretum and investigate trees with distinctive bark.

Share the information below with the children as you explore the Arboretum. Encourage them to use their sense of touch (no picking or peeling bark off the trees!) and sight to gain as much information as they can about the qualities of the bark. Ask questions and encourage children to support their answers with evidence based on their observations and background knowledge.

*Print copies of the double-sided worksheet for children to use during their visit.*

## Teacher Background Information

### Why do trees have bark?

- Bark protects from temperature extremes and intense sunlight.
- Like a scab on a wound, bark protects against organisms that can cause disease.
- Bark is somewhat porous, so it allows the tree to take in and let out gases.
- Bark prevents the loss of water.
- Bark protects the delicate cambium layer (the inside layer made up of live cells) from bumps and cuts.

### What are some uses for bark?

- Chemicals can be extracted to tan leather or used as dyes.
- Some bark (depending on the tree) has medicinal values when steeped into a tea or ground.
- Inner bark can be used to make rope, weave baskets, or cane chair bottoms. Also used to make canoes, cloth, and as surface for paintings and map making.
- Some bark is flammable and used to start fires.
- Bark can be used as shingles and wall coverings.

### What living things are found on or in bark?

- Lichen and moss, climbing vines and sometimes ferns
- Spiders and webs
- Ants, beetles, larval stage of insects and egg sacs
- Fungi, especially on dead wood
- Sometimes bats can overwinter under furrowed or peeling bark plates.



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### Free Exploration

- Encourage children to touch the trunks of trees and describe the textures and patterns in the bark.
- What does the bark remind them of? The rind of a cantaloupe, some string cheese or camouflage clothing perhaps? Make a game of comparing bark to everyday objects.
- Look to see if there are pieces of bark on the ground. How is the outer bark different from the inner bark? Can you pretend to put the bark back on the tree as a puzzle?

### Guided Exploration

- Use the Tree Bark sheet to introduce bark descriptors and challenge children to find examples in the landscape.
- Can they find different tree species with similar type of bark?
- How many living things can they find in or on the bark?

### Concluding Activities

- If you brought crayons, show children how to put paper on the trunk and make a tree bark rubbing. Be sure to write the name of the tree species next to each rubbing.
- Take turns sharing a favorite tree bark type and its descriptors, then explain why it is your favorite.

## TREE BARK

Can you find these basic bark types?



Smooth



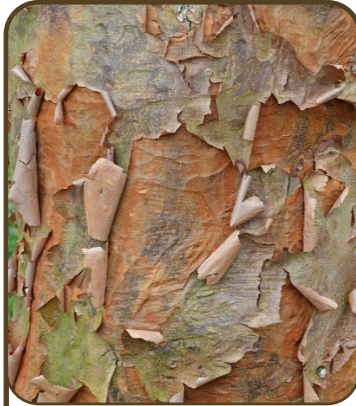
Scales



Plates



Shaggy

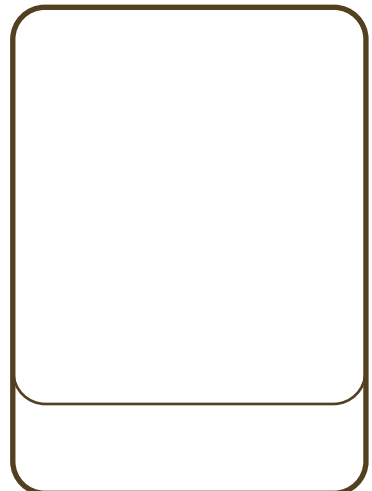
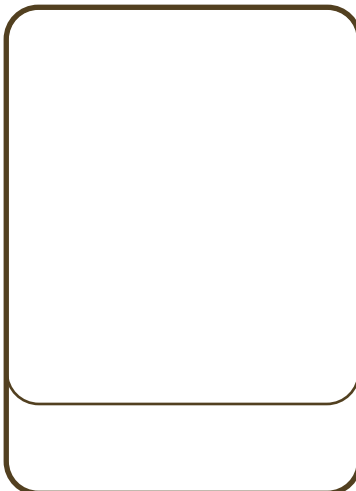
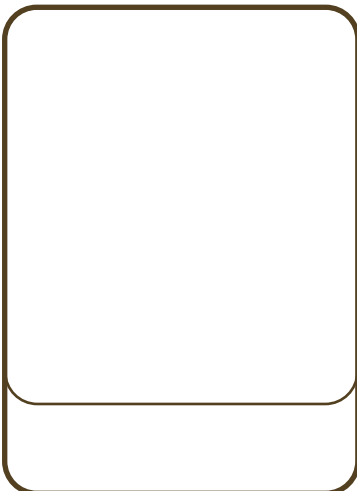


Papery



Furrowed

Did you find any new bark types? Draw them and name them like the images above.



What living things did you find on the bark? Draw and label some of them:

