ScienceCompanion®
CHICAGO SCIENCE GROUP

www.sciencecompanion.com

Dear Families,

Our class is beginning the Science Companion® study of *Diversity in Habitats*.

During this topic, the children will:

- Identify a habitat as the place where an organism can satisfy its survival needs.
- Explore the ways that different organisms survive in their habitats.
- Discover the diversity of life in different habitats.
- Experiment with pea seeds to test how much light and water they need to survive.
- Model relationships between plants and animals.

In addition to the work your child will do in class, you and your child can explore this rich topic together at home by:

- Occasionally reading a **science book** together that your child checks out from the class Science Center.
- Visiting the web site at *www.ScienceCompanion.com* to find a list of recommended web sites about habitats.

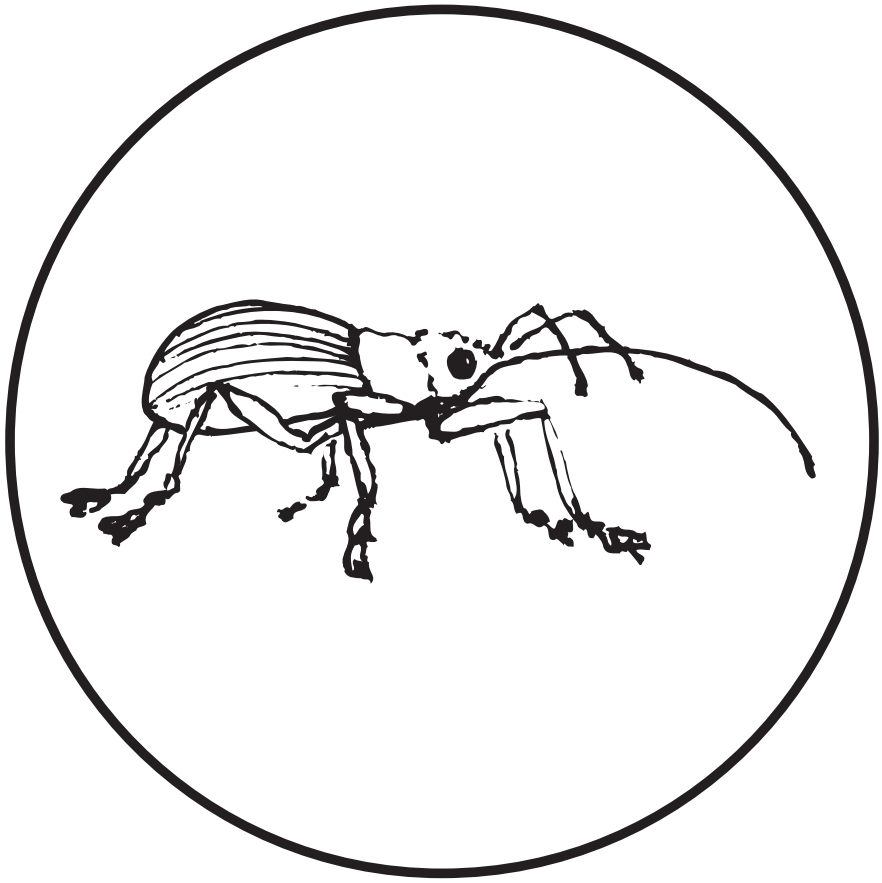
The *Diversity in Habitats* topic encourages students to observe the amazing diversity of life around us and think about the relationships between the organisms found within them. We hope the children will bring their discoveries and enthusiasm home, and share their adventures in science.

Sincerely,

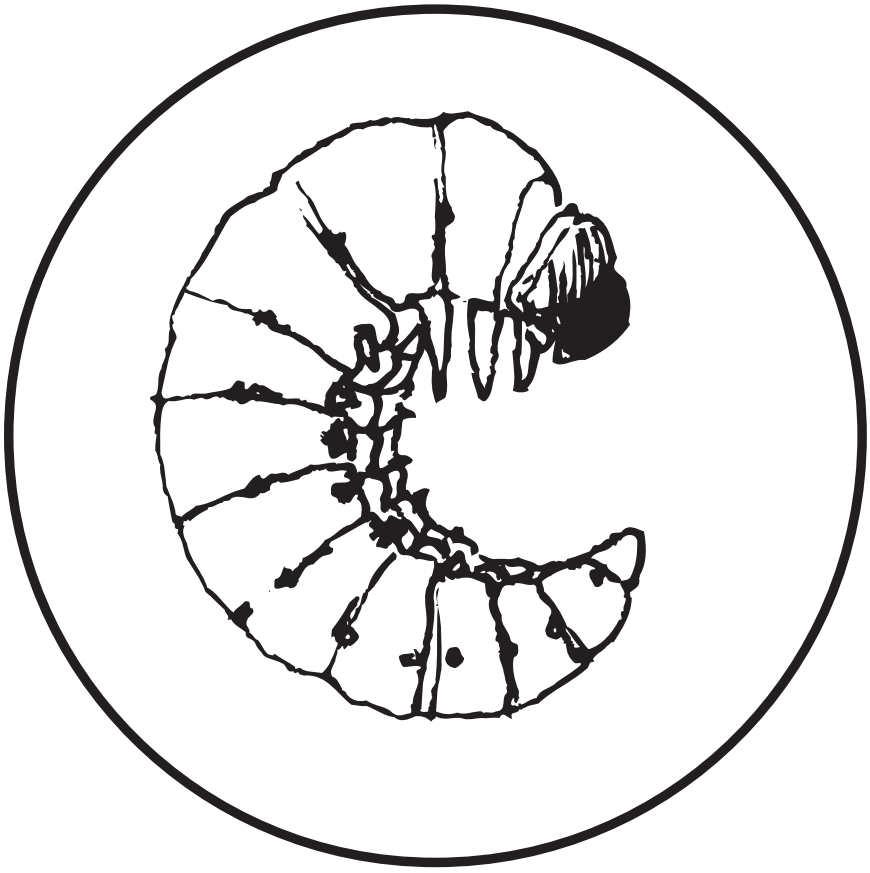
Useful Words About Habitats

behavioral characteristics	Ways an organism acts that help it survive in its habitat.
habitat	The place where an organism can get the things it needs to survive.
interact	To act together with others. Since different organisms may share habitats, they interact by relying on each other for food or shelter, or sharing available resources.
organism	Any living thing.
physical characteristics	An organism's structures (body parts).
survival characteristics	The physical characteristics and behaviors that help an organism survive in its habitat.
survive	To live with all of one's basic needs met. The basic needs for almost every living thing are food, water, air, protection, and space.

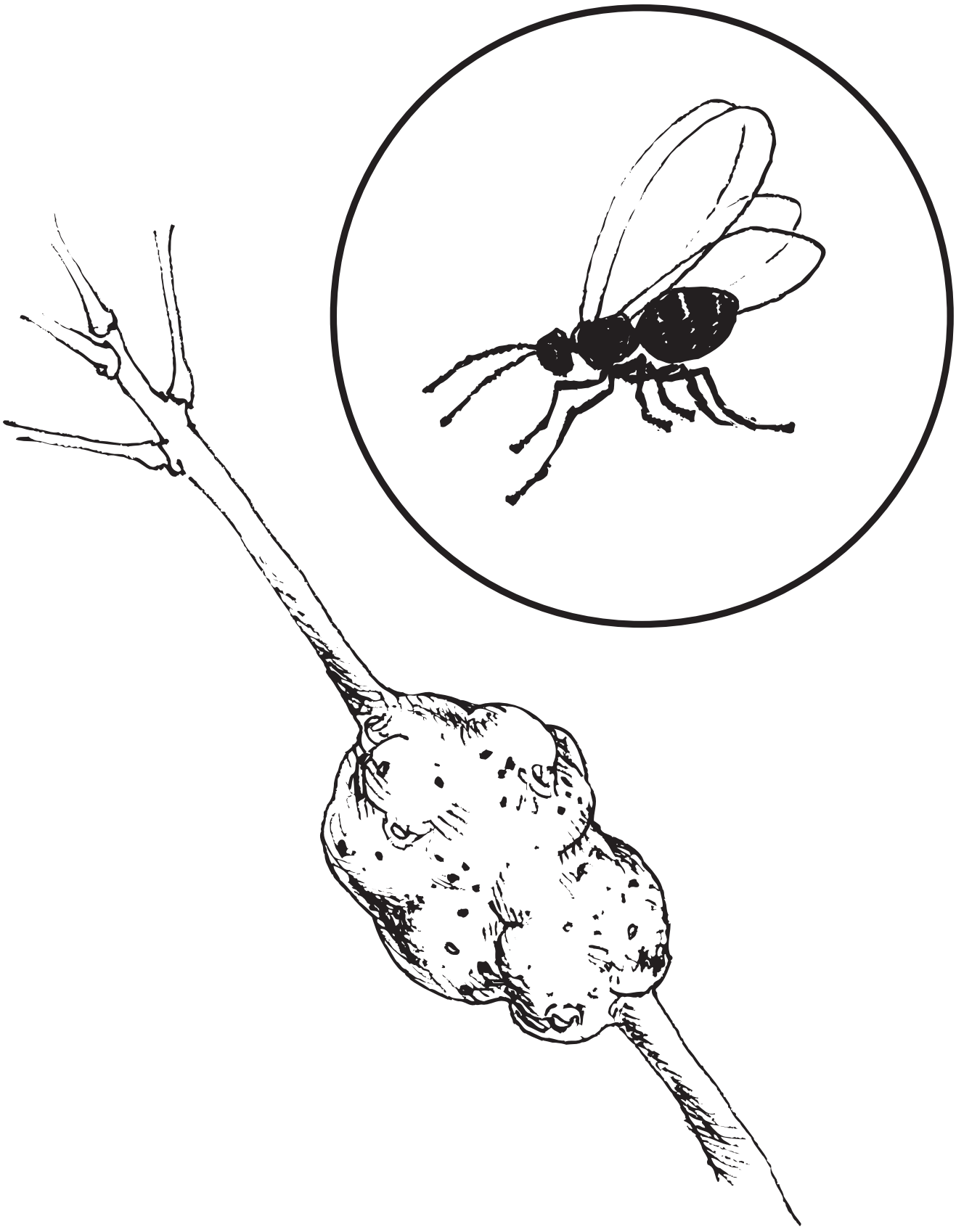
Acorn Weevil



Beetle Grub



Gall Wasp and Oak Gall



Hairy Woodpecker, Flying

Hairy Woodpecker, Perching

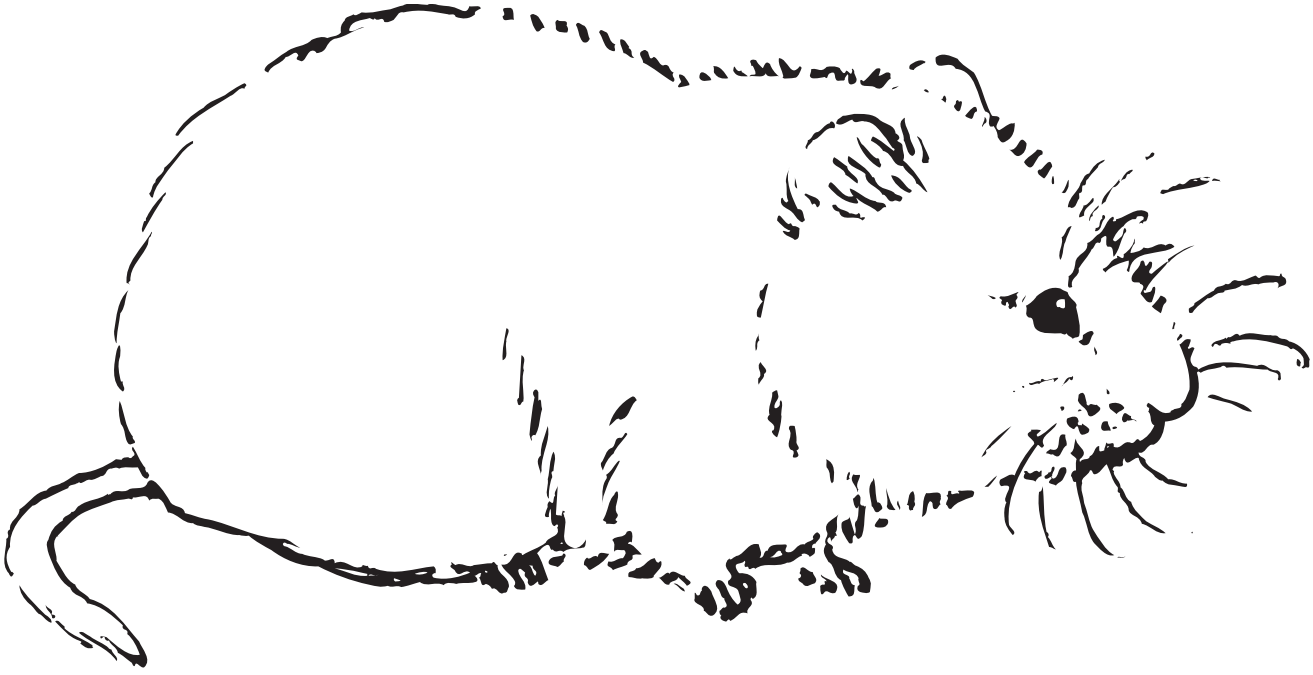
Mouse

Screech Owl, Flying

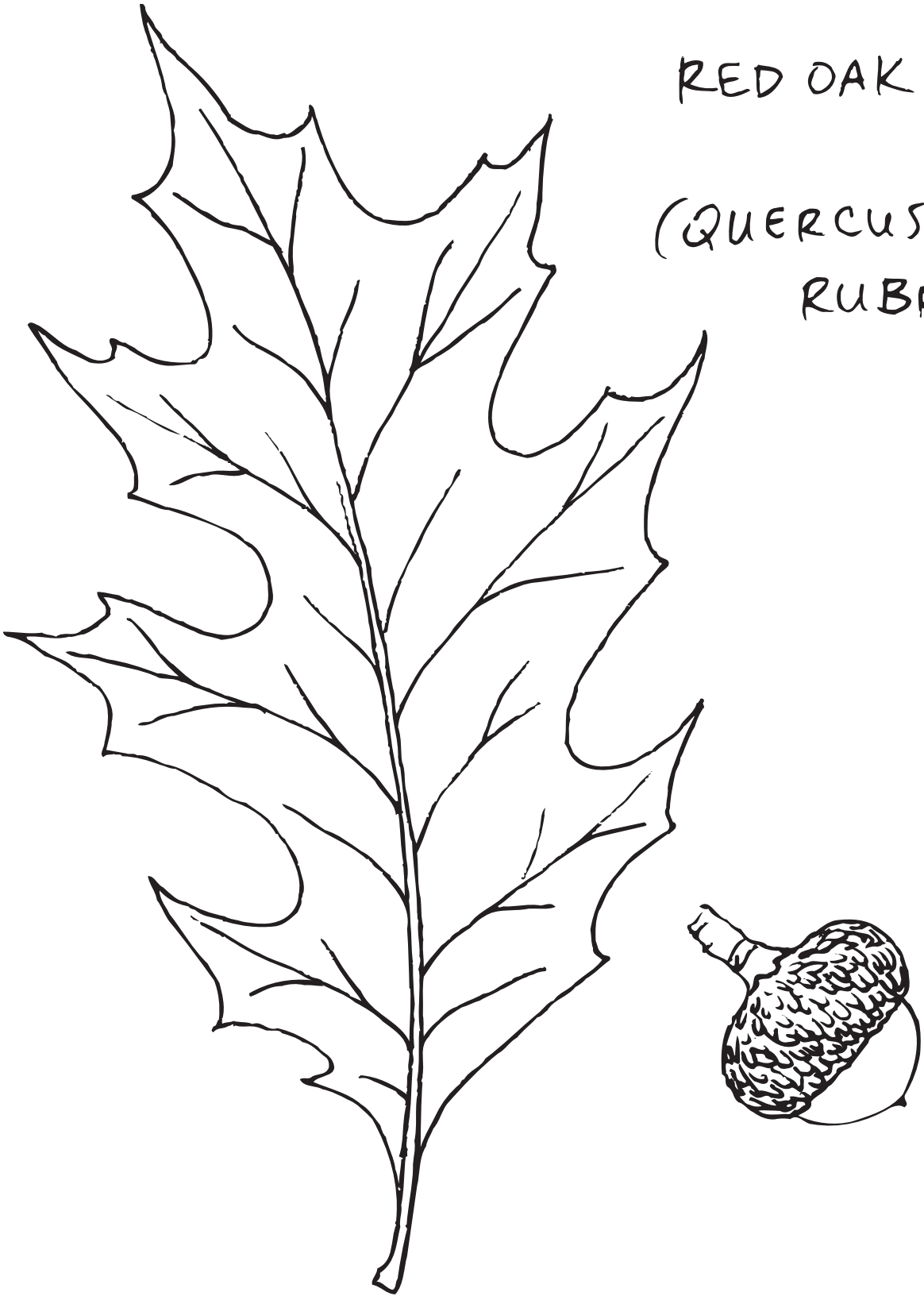
Screech Owl, Perching

Squirrel

Vole



Oak Leaves and Acorns



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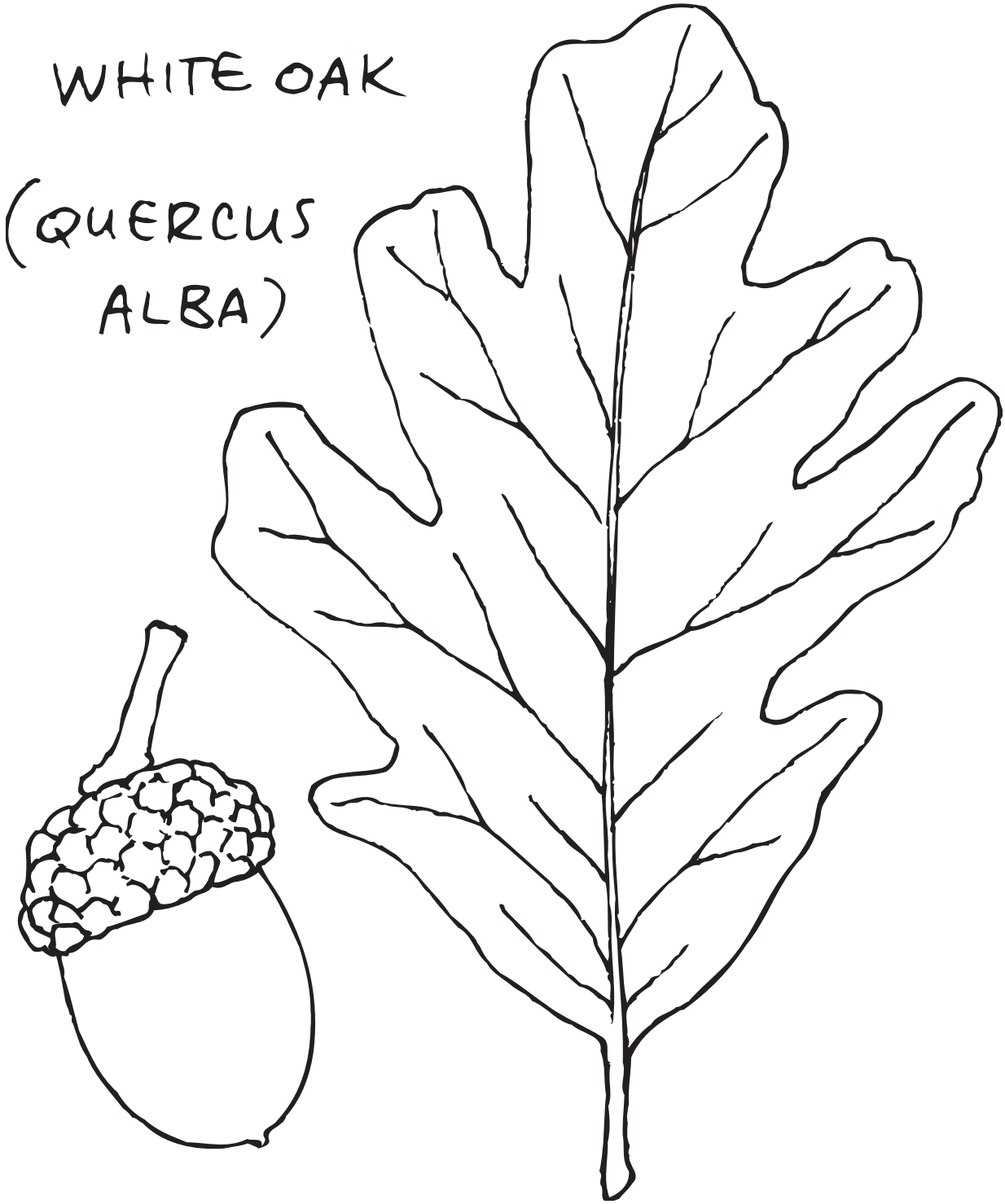


Name: _____ **Date:** _____

Family Link with Science

Owl Pellets

As part of our study of habitats, our class will soon dissect owl pellets. This exciting activity gives children the chance to collect valuable evidence about what an owl eats. Their discoveries give them clues about the diversity of an owl's habitat.

All types of owls produce pellets, but the owl pellets we will dissect are from barn owls. Barn owls are birds of prey that eat rodents, and occasionally, a small bird. Barn owls swallow their prey whole. Consequently, barn owls eat a lot of fur and bones. The barn owl digests most of the soft parts of the prey, but because its stomach is unable to digest the bones, fur, teeth and feathers, it coughs up, or regurgitates, these parts in a compact oval shape called a pellet. The pellet is hard and dry, and contains nearly complete skeletons of the organisms the barn owl ate. A barn owl typically produces one or two pellets a day.

If your child has animal fur allergies, they may still participate in the exploration by observing the dissection. If you want your child to only observe the dissection, please sign the form below and return it to class.

The children can bring home their owl pellet after our lesson. The owl pellets we use in class are heat-treated so they are sterile and safe to handle with bare hands. But, because they contain many small bones, teeth, and fur, they can be a choking hazard, especially for small children and pets.

If your child has permission to bring home a dissected owl pellet, sign the form below and return it to class. In addition, **send a jar or sturdy container for transporting the owl pellet home.**

You do not need to return this form if your child will be doing the dissection but not bringing home an owl pellet.

Keep this sheet to read and refer to.

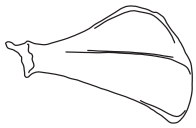
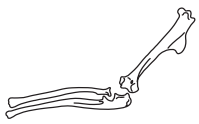
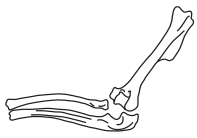
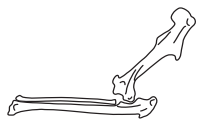
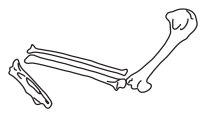
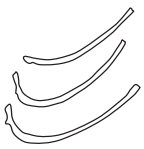
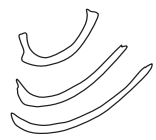
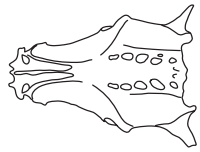
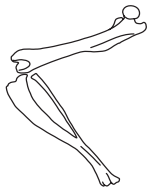
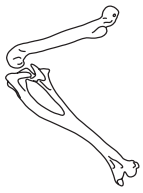
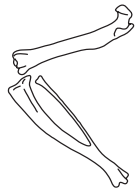
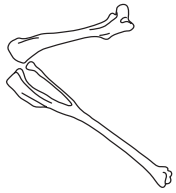
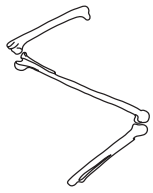
_____ My child has permission to bring his or her owl pellet home.

_____ My child will only observe the owl pellet dissection because he/she has animal fur allergies.

_____ _____

Name Date

Bone Identification Chart

	Vole	Mole	Rat	Shrew	Bird
Skull					
Jaw					
Shoulder					
Front leg					
Ribs					
Vertebrae					
Pelvic bone					
Back leg					

Macro Observations

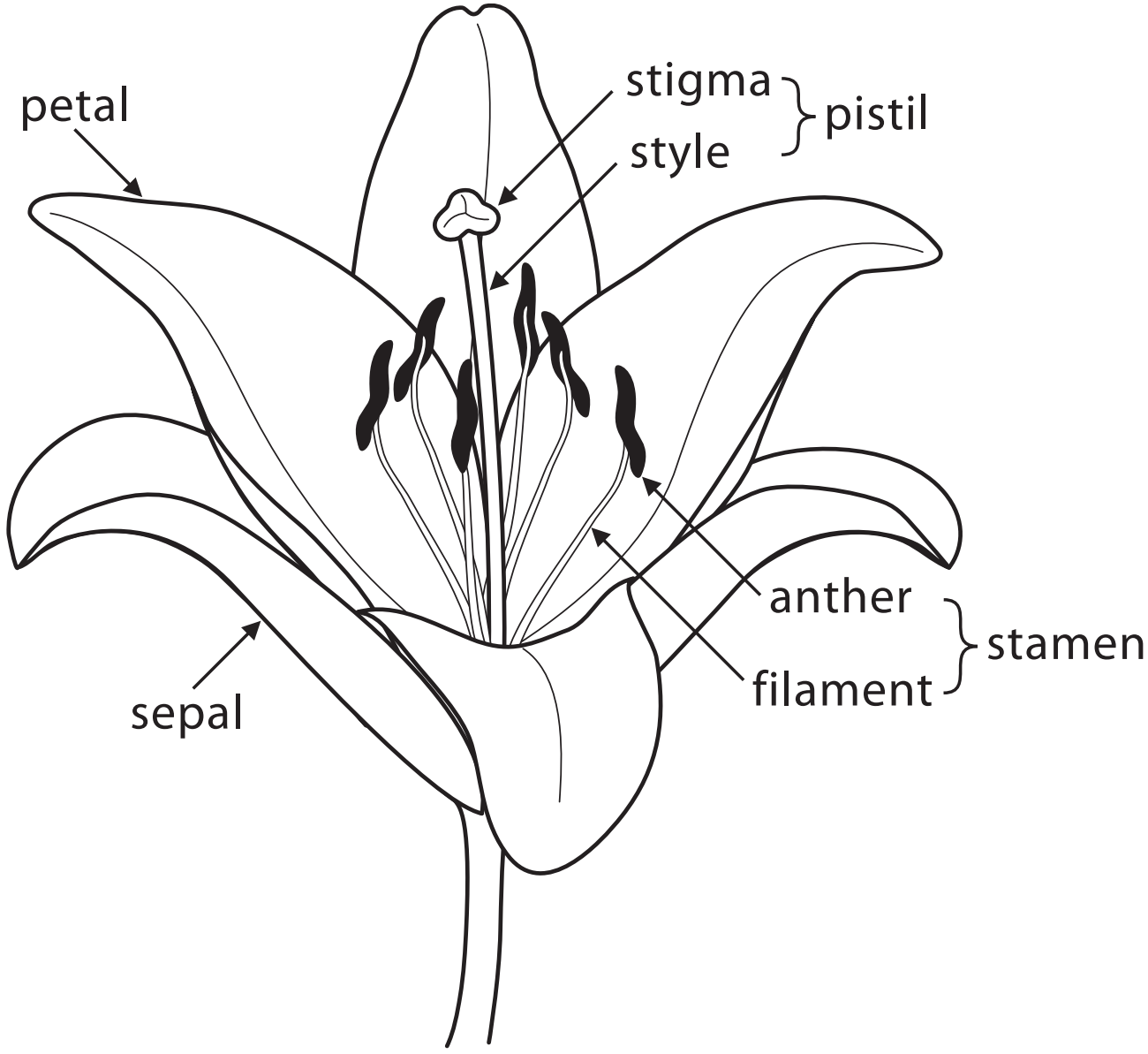
Organism Type	Number Found

Data Collection Table

Experimental Plant: No light

Date	Height (cm)	Observations
	An example of what is measured could be the number of leaves, the size of leaves, etc.	This could include qualitative data such as color of leaves, perkiness of leaves, whether the leaves are curled or flat, etc.

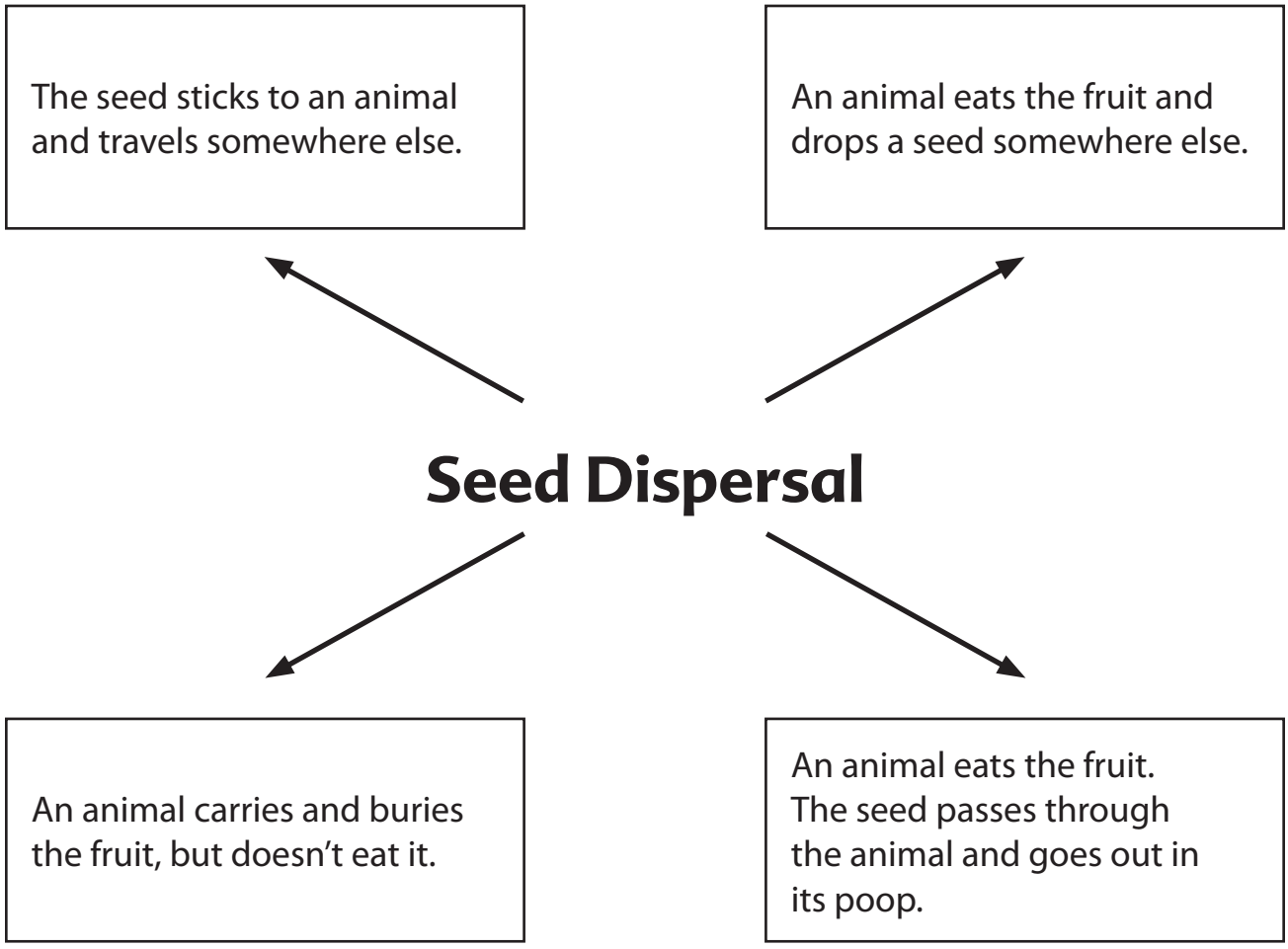
Flower Parts



Animals, Fruits, and Seeds

Animals Visual	Description	Seeds Visual	Description
Top left	Yellow-crested cockatoo eating fruit. Seeds go through digestive track and are deposited in a new location.	Top left	A sapless thistle. Seeds stick to animals or to people's clothes and then fall off in a new location.
Top right	Chipmunk foraging for dandelion buds. Seeds go through digestive tract and are deposited in a new location.	Top right	Dry agrimony plant. Seeds stick to animals or to people's clothes and then fall off in a new location.
Middle left	Monkey eating a mango in nature. Seed stays wherever the monkey leaves it after eating the fruit.	Middle left	Black and white sweetgum seed capsule. Seeds stick animals or to people's clothes and then fall off in a new location.
Middle right	Kitten sprinkled with dandelion seeds. Seeds fall off somewhere away from current location.	Middle right	The tiny barbs on this bootjack plant allow it to cling to animals or clothes and then fall off in a new location.
Bottom left	Caterpillar of a swallowtail butterfly eating a dill seed. Seeds go through digestive tract and are deposited in a new location	Bottom left	Rye seeds stick to animals or to people's clothes and then fall off in a new location.
Bottom right	A group of ants with a pepper seed. Seed may be left at some point and germinate into a new plant.	Bottom right	Horse chestnut seedpod sticks to animals and then falls off in a new location.

Concept Map


The seed sticks to an animal and travels somewhere else.
An animal eats the fruit and drops a seed somewhere else.
Seed Dispersal
An animal carries and buries the fruit, but doesn't eat it.
An animal eats the fruit. The seed passes through the animal and goes out in its poop.