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<p>Description: Students go on an unstructured exploratory walk in the habitat area while practicing their outdoor etiquette skills. Students use magnifiers to freely observe natural objects they encounter on the walk. This allows students to practice using magnifiers, and to familiarize themselves with the many interesting (and distracting) things in their habitat, prior to more formalized and focused activities.</p>	<p>Vocabulary Magnifier: <i>a lens that makes things appear larger</i> Characteristics: <i>a distinguishing trait or property</i></p>
<p>Objectives:</p> <ul style="list-style-type: none"> • Students familiarize themselves with the use of an important scientific tool. • Students use words to describe physical characteristics. • Students practice good outdoor etiquette while exploring a habitat area. 	<p>Washington State EALRs Science 1.1 Use properties to identify, describe, and categorize; and use characteristics to categorize living things. Seattle School District Standards 2.1, 2.2 We can learn about things around us by watching carefully or by doing something to things to see what happens. 1.1, 2.2 Magnifiers can let us see things that we don't expect and often give us more information than we can get with our senses alone. 1.2, 1.4 There are plants and animals living in almost every kind of environment. 1.4, 1.5 Animals eat plants or other animals for food, and may also use plants for shelter and nesting. 2.1, 2.4 A lot can be learned about plants and animals by watching them closely, but care must be taken not to mistreat them. Science Kit: Organisms</p>
<p>Print Materials:</p> <ul style="list-style-type: none"> • Image: 'Stinging Nettle' (to identify and mark if present in habitat area) <p>Kit Materials:</p> <ul style="list-style-type: none"> • Jeweler's loupes ('Private Eyes'), or other magnifiers: 1 per student <p>Teachers supplied:</p> <ul style="list-style-type: none"> • Journals • (optional) Feathers, cones, skeletonized leaf, or other natural found objects that students are less likely to find while staying on the trails. 	

<p>Activity</p> <ul style="list-style-type: none"> • Before going to the habitat area remind students of the 'Magic Glasses Story'. Discuss good outdoor etiquette. • Gather students at the entrance to habitat area. Tell students, "Today we are going to use an important scientific tool to learn about natural objects we discover in the habitat area." Pass out magnifiers to students, and demonstrate how to use them correctly in order to see things magnified and in focus. Ask students to experiment with their own hand. "What do you see that you don't normally see?" (fingerprint, veins, etc.). "How do you know it is in focus?" (sharp lines) • Encourage students to use these tools carefully by saying, "These are important tools for science. How should we handle and use them?" (don't drop, throw, scratch, use as toys). • Say, "Our goal today is to use magnifiers to see many different things in the habitat, that we don't normally notice, using magnifiers. When we look at a leaf using a magnifier we may see hairs, teeth, insects and many other things we don't normally notice. When we look at flower clusters with a magnifier we can see the parts of a flower that we may never have seen otherwise. When we look at a rock we may see colors and shapes we didn't notice before." Etc. • "While looking at these objects think of words to describe what you see. Some examples of words could be fuzzy, green, lots of lines, square, or bumpy. These are called characteristics and help us learn about what we are studying." • Provide some cautions: <ul style="list-style-type: none"> ○ Be careful of animals, don't touch or hold, instead move the magnifier over one and look closely. Why is this a good idea? (some insects have stingers; we might hurt them). Demonstrate how to observe animals without touching (find a slow moving insect). ○ Set boundaries for exploration (e.g. stay on, or 'one step' from, the trail; don't go past the big tree or bend in the trail, etc). ○ If you have nettle in your habitat area, show students the image: 'Stinging Nettle' and locate one to help students to avoid them. Flag or otherwise mark them, if possible. • Allow students to freely explore. While students are exploring share discoveries with them. Encourage the use of descriptive words. Ask questions about textures, colors, shapes, etc. • Student journals: Draw one object and include the details seen using a magnifier (Encourage; draw, look, draw, look). Ask questions such as, "How might that help the plant or animal?" and, "What does it remind you of?" (See <i>The Private Eye: Looking and Thinking By Analogy</i> by Kerry Ruef, for more extension ideas in using jeweler's loupes or magnifiers.
