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| **Living Leaf Mysteries**  A taxonomic key is a series of paired statements about the physical characteristics of organisms. It is used to identify organisms. In this activity, you will create a taxonomic key.  **Procedure**  **1. 268_3rd list** Your teacher will show you f pictures of different leaves.  **2.** Use the hand lens to examine each of the leaves. Look for characteristics like those in the table. Make a list of ﬁve or more characteristics for each leaf in your ISN..  **Materials**  Pictures of 5 different types of leaves  metric ruler   |  |  | | --- | --- | | **Leaf Characteristics to Consider** | | | **Characteristics** | **Observations** | | Overall Shape | Is the leaf needlelike and narrow or is it flat? If it is a flat leaf, is it rounded, oblong, heart-shaped, or some other shape? | | Simple vs. Compound | Is the leaf a single unit, or is it made up of individual leaflets? If it is made up of leaflets, how are they arranged on the leaf stalk? | | Pattern of Veins | Do the leaf’s veins run parallel from a central vein, or do they form a branching pattern? | | Leaf Edges | Are the edges of the leaf jagged or smooth? | | Leaf Texture | Is the leaf’s surface fuzzy, shiny, or another texture? |   **3.** Use your observations to create a taxonomic key for the leaves. Your taxonomic key should consist of paired statements, similar to the example shown above.  **4.** Exchange your leaves and taxonomic key with a partner. If your partner cannot match all of the leaves using your key, revise your key as necessary.  **Think It Over**  Do you think every single leaf of the same type would share the same taxonomic characteristics? Explain.  Why it is important that the paired statements be contrasting statements? |  |