Fall Science: The Deciduous Cycle

Learning objective: To identify and label the biological changes in deciduous trees during the fall season.

Use the drawing space provided to create a detailed scientific diagram of a deciduous tree during fall. Use the word bank to label the specific parts of the tree and explain the process of leaf abscission.

Draw: Draw a large, detailed deciduous tree in a scientific style. Show some leaves still attached to the branches, some turning vibrant fall colors, and some scattered on the ground. Include a 'magnified' circular inset drawing showing the base of a leaf stem (the abscission zone) where it connects to the twig. Ensure the drawing is clear enough to add labels from the word bank.

Label words: Chlorophyll · Deciduous · Abscission zone · Nutrient reabsorption · Dormancy · Photosynthesis · Carotenoids

Steps:

1. Label the area where the leaf stem meets the branch. What is the scientific name for the process where the tree sheds its leaves?
2. Explain why leaves change color from green to yellow, orange, or red during the fall months.
3. Why do deciduous trees enter a state of dormancy during the winter?
4. Identify one difference between a deciduous tree and an evergreen tree.

5. If a tree loses 150 leaves per day for 4 weeks, how many leaves will it have lost in total?