

Science: Plants

Name_____

Leaf Collection Lab

1% each

#_____

Block_____

1. Tree Leaf Collection (woody): 5+%

Use the *Tree Leaf Identification with a Dichotomous Key* packet.

a) Collect at least 5 leaves that are pictured in the *Tree Leaf* packet.

b) **Requirement:** Collect at least one of each of the following.

☐ 1) Needle leaf

☐ 2) Scale leaf

☐ 3) Compound Leaf

☐ 4) Leaf with palmate veins.

☐ 5) Leaf with pinnate veins.

c) Use only 1 or 2 strips of clear tape to tape them on plain white paper.

Use a 2 or 4 part paper. Tape no more than 4 leaves to one paper.

d) For each, write your choices from the *Dichotomous Key*.

e) Write the **Tree Name** and the **Requirement Met**. **Have Checked**

2. Herbaceous Leaf Collection: 5+%

a) Collect at least 5 leaves that are from herbaceous plants.

b) **Requirement:** Collect at least one of each of the following

☐ 1) Linear leaf

☐ 2) Leaf with a dentate margin.

☐ 3) Compound leaf

☐ 4) Leaf with parallel veins.

c) Use only 1 or 2 strips of clear tape to them on 4-part plain white paper.

d) Write the **Requirement Met** and any **Identification** you have. **Checked**

3. Extra: Finish the identification of the leaves in the Tree ID Packet
Add to your collection.

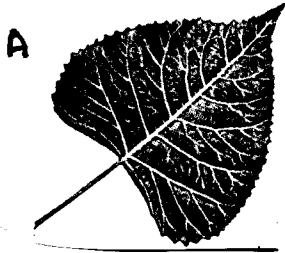
Tree Leaf Identification with a Dichotomous Key

Use the following Dichotomous Key to identify tree leaves. ^{Reference:} (see page 4 of this packet)
 For each leaf, start at number 1 and choose 1a or 1b. Then go to the number at the end of the line.

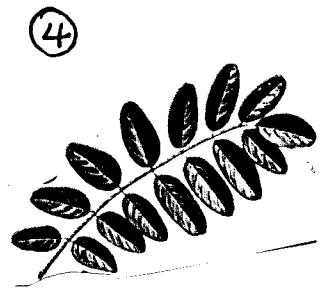
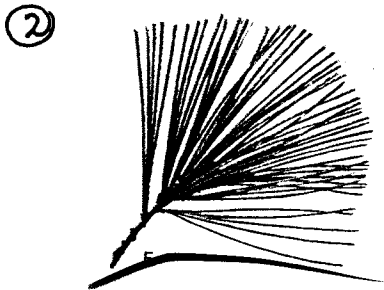
- 1a Leaves needle like or scale like.....2
- 1b Leaves flat with veins.....7
- 2a Scale like.....3
- 2b Needles.....4
- 3a Scales, usually scratchy.....JUNIPER
- 3b Scales, not scratchy.....CEDAR ARBORVITAE
- 4a Needles single5
- 4b Needles in groups of 2 or more.....6
- 5a Stiff prickly needlesSPRUCE
- 5b Soft pliable needles.....FIR
- 6a Needles in bundles of 2 to 5PINE
- 6b Needles in groups of 14 to 30 per clusterLARCH
- 7a LeafCompound.....20
- 7b Leaf simple.....8
- 8a Venation (veins) pinnate9
- 8b Veins palmate.....18
- 9a Leaf margin entire.....10
- 9b Leaf margin saw toothed or lobed11
- 10a Leaf shape lanceolate, silvery colored, especially under.....RUSSIAN OLIVE
- 10b Leaf shape elliptical.....WILLOW
- 11a Leaf margin saw-toothed.....12
- 11b Leaf margin lobed.....15
- 12a Leaf margin with singly toothed13
- 12b Leaf margin doubly saw toothed14
- 13a Leaf margin serrate16
- 13b Leaf margin crenate.....17
- 14a Leaf margin doubly serrate, shape ovate, leaf base unevenAMERICAN ELM
- 14b Leaf margin doubly serrate, shape ovate, leaf base evenPAPER BIRCH
- 15a Leaf margin cleft lobed.....BLACK OAK
- 15b Leaf margin round lobed.....WHITE OAK
- 16a Leaf shape lanceolate.....PEACH LEAF WILLOW
- 16b Leaf shape elliptical.....CHERRY
- 17a Leaf shape deltoidLOMBARDY POPLAR
- 17b Leaf shape ovate.....BLACK COTTONWOOD
- 18a Five veins, leaf margin cleft lobed19
- 18b Three veins, leaf margin cleft lobed.....SYCAMORE
- 19a Deeply lobed, silver color underneathSILVER MAPLE
- 19b Shallow lobed.....NORWAY MAPLE
- 20a Leaflets pinnate.....21
- 20b Leaflets palmateHORSE CHESTNUT
- 21a Leaflets ovate, serratedBLACK WALNUT
- 21b Leaflets, margin entire.....LOCUST

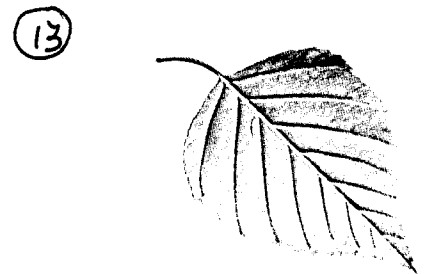
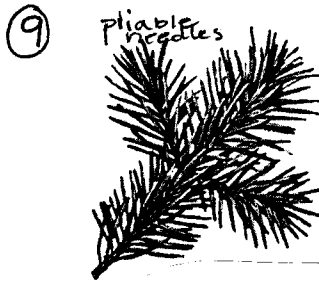
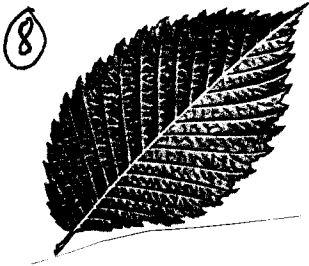
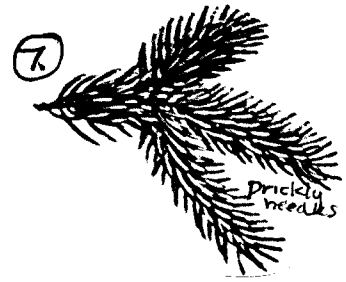
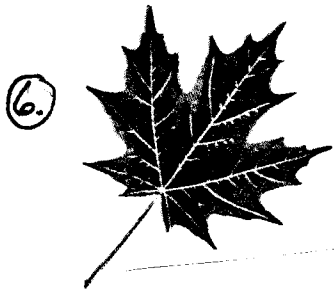
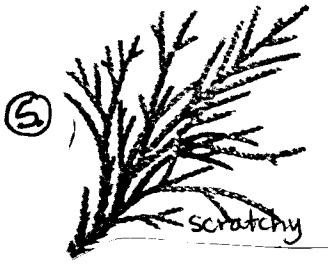
Identify the leaves below using the Yantis Park Tree Leaf Dichotomous Key.

1. Always start at 1a and 1b.
2. Write each choice with its number on this page by the leaf. (See sample.)
3. When you get to the tree name, WRITE IT AND CIRCLE IT. 1/2% each.

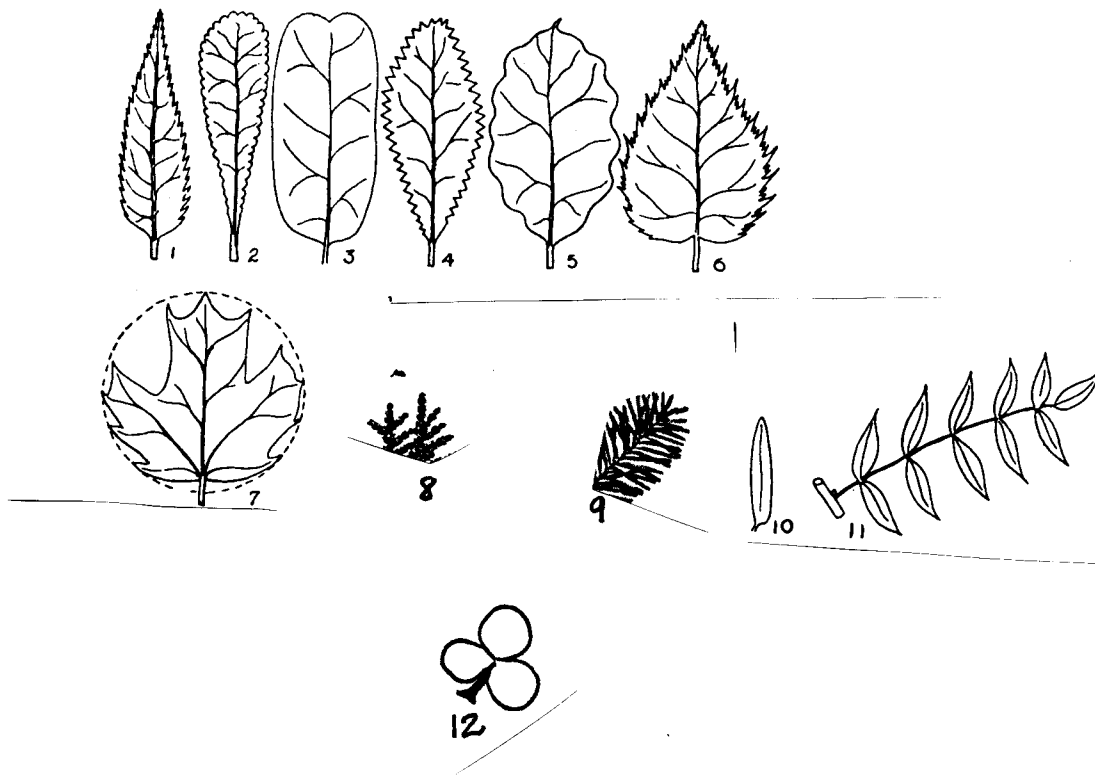


- 1b flat with veins..7
7b simple..8
8a venation pinnate..9
9b margin saw toothed..12
12a margin singly sawtoothed...13
13b margin crenate...17
17b shape ovate...Black Cottonwood





LEAF Characteristics:



Leaf Shapes

1-Lanceolate. 2-Oblanceolate. 3-Oblong. 4-Elliptic. 5-Oval.
6-Ovate. 7-Orbicular. 8-Scalelike. 9. Needle 10-Linear.

Leaf Margins

1-Serrate. 2-Crenate. 3-Entire. 4-Dentate. 5-Sinuate. 6-Doubly serrate. 7-Lobed.

Leaf Apices

1-Acuminate. 2-Rounded. 3-Emarginate. 4-Obtuse. 5-Mucronate.
6-Acute.

Leaf Bases

1-Obtuse. 2-Cuneate. 3-Rounded. 4-Acute. 5-Rounded. 6-Cor-
date. 7-Truncate.

Leaf Types

1 to 10-Simple leaves. 11-Pinnately compound leaf. 12. Palmately Compound Leaf