Pinaceae, e.g. *Pinus*: needle-like leaves (2 per fascicle)

Cupressaceae, e.g. *Juniperus*: awl-like (may also have scale-like leaves)

Taxaceae, e.g. *Taxus*: linear leaves with short pedicels and a thick midrib

Cupressaceae, e.g. *Thuja*: scale-like (may also have awl-like leaves)

Pinophyta > three common families of conifers – leaf shape examples

Gymnosperm Families
Three common families of conifers – female cone examples

**Gymnosperm Families**

**Pinaceae**, e.g. *Pinus*: elongated woody cones greater than 2 cm long

**Cupressaceae**, e.g. *Juniperus*: berry-like cones

**Taxaceae**, e.g. *Taxus*: single seeded drupe-like cones

**Cupressaceae**, e.g. *Thuja*: cones less than 2 cm long & fewer than 20 scales
Key to Three Common Families of Conifers

1a. Leaves needle-like (acicular) or flat and narrow (linear), borne singly or with 2, 3, or 5 needles per fascicle; female cones woody, elongated, mostly over 2 cm wide with over 20 spirally arranged scales .................. Pinaceae

1b. Female cones or leaves not as above ........................................................................................................ 2

2a. Leaves linear, tapered to bases, attached by short petioles, midribs prominent; female cones drupe-like and less than 1 cm wide, one seeded, scale becoming a fleshy red aril that nearly surrounds the seed ............. Taxaceae

2b. Leaves mostly scale-like and overlapping, flat against twig or with apex awl-like, bases usually covering twig or rarely needle-like (e.g. common juniper) or linear (dawn redwood, bald cypress); female cones woody or berry-like, mostly rounded and less than 2 cm wide with fewer than 20 scales (exceptions include China fir, redwood) ............ Cupressaceae

Use this key to identify the following unknown families of conifers
Conifer family unknown #1

Gymnosperm Families

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Conifer family unknown #2

Gymnosperm Families
Conifer family unknown #3

Gymnosperm Families
Conifer family unknown #4
Gymnosperm Families

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Conifer family unknown #5
Gymnosperm Families

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Conifer family unknown #6

Gymnosperm Families
1) Cupressaceae
2) Pinaceae
3) Taxaceae
4) Pinaceae
5) Cupressaceae
6) Taxaceae

Use the KPU Plant Database to search for additional conifer examples.

Answer key to three family unknowns
F.Y.I.: Pinophyta > Araucariaceae > *Araucaria araucana* (monkey puzzle tree)
**Ginkgophyta > Ginkgoaceae > Ginkgo biloba** (a leafy gymnosperm but not a conifer): fan shaped leaf blades with dichotomous venation, male cones of *Ginkgo* are catkin/ pine-like. The female reproductive structure is more drupe-like and stinks when mature.