**Diatom Identification Key**

- **Round on a face**
  - Yes
    - Cyclotella
    - Stephanodiscus
    - Cyclostechnitis
  - No
    - Rod shaped
      - Yes
        - Cyclotella
      - No
        - Disk Shaped

- **Raphe in the middle of the valve**
  - Yes
    - Rod shaped
      - Yes
        - Cyclotella
      - No
        - Disk Shaped
          - Yes
            - Aulacoseira
          - No
            - Eurosolenia

- **Raphe present**
  - Yes
    - Rod shaped
      - Yes
        - Cyclotella
      - No
        - Disk Shaped
          - Yes
            - Aulacoseira
          - No
            - Eurosolenia

**Glossary**

- **Valve:** Diatom cells include an outer, siliceous cell wall which is composed of two parts, or valves. Many of the features used to classify diatoms are based on the morphology of the valves. Each valve has a face and a mantle.

- **Raphe:** A slit through the valve face of monoraphid and diraphid diatoms, usually situated along the apical axis. This is the structure which enables a diatom cell to move over substrates. Araphe is without araphe.

- **Frustule:** Siliceous portion of diatom cell, a consisting of two valves, an epi-valve and hypovalve and their associated cingulum elements.

- **Hetrovalvar:** Frustules in which one valve differs in morphology from the other. Used most to refer to the monoraphid diatoms, where one valve possesses a raphe and the other possesses a pseudoraphe.

- **Isovalvar:** Frustules in which both valves bear an equal and fully formed raphe.