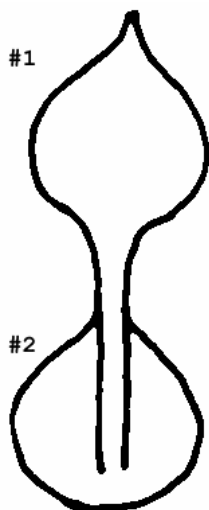


1 • Matter and Measurement

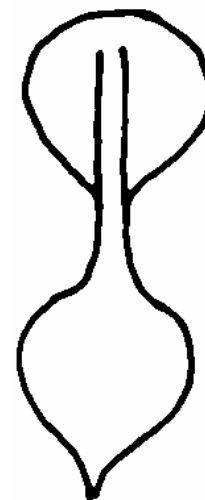
HANDBOILER DISTILLATION

Hand-boilers are very fragile!!



To Do:

1. Sketch liquid level in hand-boiler on left.
2. Warm bottom bulb (#2) with hand.
3. Is the liquid “boiling”?
4. Get all liquid in bottom bulb (#2).
5. Turn hand-boiler upside down.
6. *Carefully* surround lower bulb (#1) with ice.
7. Keep upper bulb (#2) warm with hands (Don’t push down.)



To Notice:

1. Your hands feel _____ (warm / cool).
Energy is _____ (entering / leaving) your hands.
2. The energy is changing the liquid to _____?
What do we call this physical change? _____
3. What appears in the cooled bulb (#1)? _____
What do we call this physical change?
4. The original colored liquid is a _____
(pure substance / mixture).
5. What physical property are we exploiting to separate the two components of this mixture? _____
6. Sketch the result of this labette on the hand-boiler on the right.