Beeswax

Task

1. **Get to know beeswax; what can you see, smell, feel...and describe it. Observe the honeycomb.**
2. **Measure the melting temperature of beeswax.**
3. **Measure the density of beeswax.**

Figure 1: The bee produces wax with wax glands to build honeycombs.

Measurements and results:

1. Describe the perceptions:
   * color, smell
   * changes in texture (pressing, slipping) of the wax that warms in the hand
2. Measuring the melting point of beeswax
   a. Heat the pot with the water in which the bee wax is floating.
   b. Read the melting temperature. $T_{melt} =$ _____

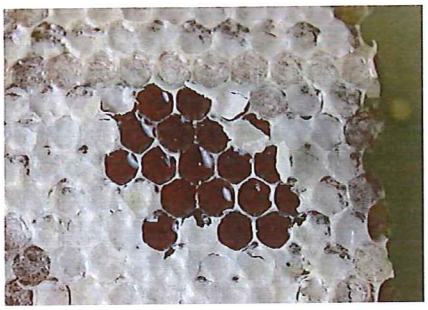

Figure 2: Honey in the comb

3. Measurement of the density of beeswax
   a. Weigh a piece of beeswax.
   b. Put it in a measuring container with water and calculate the volume change.
   c. Density calculation:

$$\rho = \frac{mass}{volume} = \text{\_\_\_\_\_} = \frac{g}{cm^3} = \frac{kg}{m^3}$$

Figure 3: The oldest jaw with a wax seal found in a small cave near Loka near Koper (6500 years)

Questions

1. Assess the density measurement error.

Figure 4: Bee wax is used in many areas: the cosmetic, pharmaceutical,

2. How do bees produce wax? Describe its importance for the bee family.
3. What were the uses of beeswax in the past? How do we use beeswax today?