Chapter 8: Desserts and Baked Goods

8.1 Bakeshop Basics
Baker’s Ingredients

- Strengtheners
- Shortenings/fats
- Sweeteners
- Leaveners
- Thickeners
- Flavorings
- Liquids
Baker’s Ingredients

- **Strengtheners**
  - Provide stability and ensure that the baked item doesn’t collapse once it is removed from the oven
  
- **Flour and eggs**

- **Variety of flours** (see pg. 505)
  - **Wheat flours** produces *gluten* (see nutrition pg. 507)
    - AP (all purpose)
    - Bread
    - Cake
    - Durum
    - Pastry
    - Semolina
Baker’s Ingredients

- **Shortenings/fats**
  - Make baked goods moist, add flavor, and keep the baked item fresh longer

- **Butter and oils**

- More thoroughly mixed fat, the more it will affect its texture
  - Rubbed or rolled into: Large layers, create flakiness
  - Creamed: Smooth, soft, cake-like
Baker’s Ingredients

- **Sweeteners**
  - Sugars & syrups
  - Adds flavor and color to baked goods
  - Help shortening blend with other ingredients to make soft & tender
  - **Caramelization:**
    - When baked, heat causes sugar to turn a light brown color

- Refined sugars
- Sugar syrups
- Molasses
- Brown sugar

- Corn syrup
- Honey
- Malt syrup
  - usually used in yeast breads
Baker’s Ingredients

- Leaveners:
  - Allow the dough or batter to rise
  - Measure carefully: Small changes can produce major defects
  - 3 categories:
    - Chemical:
      - Baking powder & baking soda
    - Organic:
      - Yeast
        - Microscopic fungus mixes with carbohydrates (sugar or flour) & ferments to produce CO\(_2\)
    - Physical:
      - Creaming method: Beat fat & sugar together
      - Foaming method: Beat eggs (may be egg white, yolk, or combination at different stages)
Thickeners

Combined with the stirring process, determine the consistency of the finished product

- Example:
  - Custard cooked over direct heat and stirred constantly = SAUCE
  - Custard cooked in a bain-marie (water-bath) = FIRM CUSTARD
Flavorings

- Affect a baked item’s taste and color

- Cocoa is the basis of all chocolate desserts

- Spices often used in baking:
  - Cinnamon, nutmeg, mace, cloves, ginger, caraway, cardomom, allspice, anice, poppy seeds

Extracts:

- Flavorful oils taken from foods such as vanilla, almond, & lemon (only a few drops needed)

Use flavorings so that flavor of spice or extract does not overwhelm the flavor of the finished product
Baker’s Ingredients

- **Liquids**
  - Provides moisture to the product and to help gluten form properly
  - Most common: **Water**
  - Milk products:
    - Whole milk, buttermilk, cream, dried milk
  - Also used as **liquid AND flavor**:
    - Molasses
    - Honey
    - Eggs
    - Butter
Baker’s Measurements

- Standardized recipes for bakery products are called formulas.

- Proportions of each ingredient are given in the form of percentages
Flour always has a proportion of 100%, and the percentages of all other ingredients are calculated in relation to the flour.

The formula for **baker’s percentages** is:

$\text{Weight of ingredient} \div (\text{Weight of flour} \times 100 \text{ percent}) = \text{percent of ingredient}$

See pg. 508 for example using baker’s percentage
Baker’s Measurements

- Understanding baker’s % makes it easy to calculate the weight of any ingredient or to convert the formula to a new **yield**:  
  - how much of something is produced.
Process of Using Baker’s Percentages

To calculate the weight using the baker’s percentage:

1. Change the ingredient % to decimal form by moving the decimal point TWO places to the left.
   • Example for Sugar 20% = .20

2. Multiply the weight of the flour by this decimal to get the weight of the ingredient.
   • Example: 10 lb flour x .20 =
     2 lb sugar
Baker’s Measurements

- **Sifting** adds air to flour, cocoa, and confectioner’s sugar; removes lumps; and filters out any impurities.

  - Check recipes carefully to see whether ingredients are to be scaled before or after sifting.
Section 8.1 Summary

- There are seven main categories of ingredients used in baking:
  - Strengtheners
  - Shortening
  - Sweeteners
  - Leaveners
  - Thickeners
  - Flavorings
  - Liquids

- Proportions for each ingredient are given in the form of percentages.

- In baking, flour always has a proportion of 100 percent, and the percentages of all other ingredients are given in relation to the flour.
Assignment

- 8.1 Bakeshop Basics Worksheet