Plums

1. **Use botanical image (on page 2) to study anatomy of stone fruit. Draw a plum and label the fruit's seven parts (stem end, shoulders, pit, cheek, flesh, suture, and tip). Define each part.**

    - **Stem End:** The end at which fruit was attached to the tree. The depression around the stem is called the stem cavity.
    - **Background Color:** The yellow color on the skin of peaches and nectarines; golden yellow in yellow varieties and creamy yellow in white varieties.
    - **Pit or Stone:** The pit supports the fruit as it hangs from the stem and provides the pathway for nutrients flowing from the tree as the fruit grows.
    - **Suture:** The line running from the stem to the blossom end of the fruit.
    - **Shoulders:** The bulge around the stem cavity at the top of the fruit; it becomes full and rounded as the fruit matures.
    - **Blush:** The red color on a peach or nectarine caused by exposure to sunlight. Depending on the variety, it may cover from 10% to 100% of the fruit's surface.
    - **Cheek:** The sides of the fruit on either side of the suture.
    - **Flesh:** The edible portion of a peach or nectarine.
    - **Blossom End or Tip:** The end opposite the stem.

2. **Plums are a type of stone fruit. Other stone fruits include peaches, apricots, and cherries. Study Nutrition Facts labels for at least three stone fruits. (Hint: Use comparable weight measurements.) Make a chart of the three fruits and list the top five nutrients found in each fruit. Which fruits have similar nutrients? Which variety contains the most vitamin C per serving? Which one contains the most fiber per serving? What is the function of each of these nutrients in your body?**

    - Plums top 5 nutrients: vitamins A, C, K, fiber, and potassium

- Peach top 5 nutrients: vitamins A, C, K, E, potassium, and niacin
- Apricots top 5 nutrients: vitamins A,C, K, E, potassium
- Cherries top 5 nutrients: vitamins A, C, K, manganese, and potassium
- One cup of sliced apricots has 26% DV for vitamin C and 12 % DV for fiber.

Vitamin C helps the body heal cuts and wounds and helps lower the risk of infection. Vitamin C also protects the body from bruising and helps build the tissue that holds muscles and bones together. It also helps the body absorb more iron found in food.

Fiber is the part of your food the body can not break down. High fiber foods tend to be low in calories and fat. Fiber can help fight heart disease by lowering cholesterol, protect against some forms of cancer, and help maintain a healthy digestive system by preventing constipation.

3. **Since the body is efficient in conserving iron supplies, iron deficiencies occur mainly in the growth period or during blood loss. What happens to the body when intake fails to meet the needs to replace depleted iron stores? What food choices are excellent sources of iron? How can cooking techniques impact iron levels in foods?**

   Iron is a trace mineral meaning your body needs small amounts. If your body does not get enough iron, this deficiency can lead to anemia accompanied by fatigue and infections. In the United States, iron deficiency is the most common dietary deficiency. Iron comes from both animal (heme iron) and plant (non-heme) sources. Iron is absorbed best from animal sources and when consumed with vitamin C plant sources of iron. Some examples of food sources of heme iron include: beef liver, beef, chicken, fortified cereals, soybean nuts. Examples of non-heme iron include: enriched rice, prunes and whole wheat bread. When cooking, iron skillets improve the iron content of food.

4. **Describe how the following factors can affect the absorption of iron: vitamin C, the form of iron, composition of a meal, fiber in diet, and tannins in tea.**

Factors that affect absorption of iron:

- **Vitamin C**: This vitamin improves non-heme iron absorption. It is especially important to include foods containing this vitamin in specific situations that include menstruation, pregnancy, and/or vegetarian diets.

- **Forms of Iron**: a) Heme iron is found in animal foods which include meats, fish, and poultry; b) non-heme iron is found in plant foods which include beans and lentils. Foods containing heme iron is better absorbed by the body compared to non-heme iron—which absorption could be influenced by other food components.

- **Composition of a meal**: It is important to eat a variety of plant and animal foods. Animal foods are rich in heme iron. Plant foods contain non-heme iron. Whole and enriched refined grain products provide sources of non-heme iron. There are some food sources that improve absorption of iron such as meat proteins and vitamin C. Food sources that can decrease absorption include tannins (tea), calcium, and phytates (legumes, whole grains)

- **Fiber in the diet:** Whole grain products can provide both dietary fiber and iron to the diet. Fiber can decrease absorption of iron.

- **Tannins in tea**: Tannins inhibit the absorption of iron in the diet.

- **Other**: When iron stores are low, iron absorption increases and vice versa when iron stores are high (to prevent iron toxicity).

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