

Answer Keys

Dress it Up

Doodle Bugs

- Circle: Saturated and trans fats
Box: 9 calories
Fill-in the blank: There are five more calories in one gram of fat than there are in one gram of protein.

SCIENTIFIC INQUIRY:

Reading Labels

Note: Answers based on Nutrition Facts labels will vary depending upon the brands.

- Ranch: 2 tablespoons; 110 calories; 11 grams total fat; 1.5 grams saturated fat; 0 grams trans fat
Light ranch: 2 tablespoons; 70 calories; 4.5 grams total fat; 0.5 gram saturated fat; 0 grams trans fat
Fat-Free ranch: 2 tablespoons; 50 calories; 0 grams total fat; 0 gram saturated fat; 0 grams trans fat

1. Ranch
2. Ranch
3. $9 \text{ calories/gram} \times 11 \text{ grams} = 99 \text{ calories}$
4. $9 \text{ calories/gram} \times 4.5 \text{ grams} = 40.5 \text{ calories}$
5. $9 \text{ calories/gram} \times 0 \text{ grams} = 0 \text{ calories}$
6. $110 \text{ calories} - 70 \text{ calories} = 40 \text{ calories}$
7. Answers will vary.
8. The fat-free ranch is healthiest because it has less fat and calories.
9. Yes. Salad dressings with healthy fats still have a lot of calories. Eating too much salad dressing can give you too many calories.

Emulsify This

Doodle Bugs

- Circle: Immiscible
Drawing: Before – the jar has two separate layers (oil and vinegar). After – the jar has just one layer (a mixture of oil and vinegar).

SCIENTIFIC INQUIRY:

Immiscible

1. The mixture in Jar A separated faster because it did not have an emulsifier.
2. The mustard and paprika are emulsifiers. They changed the mixture by allowing the vinegar and oil to stay mixed longer.
3. Jar B is an emulsion. It is a temporary emulsion.
4. Students should label the oil, interface and vinegar. Color should be used to represent the oil, paprika, and mustard.

Answer Keys (continued)

Mmmm Creamy

Doodle Bugs

Underline: **Mouth feel is simply how a food feels in your mouth.**
Circle: **Fat**
Fill-in the blank: **Companies want to make ice cream with less fat so that the ice cream will be healthier.**

SCIENTIFIC INQUIRY:

We All Scream for Ice Cream

Note: Answers based on Nutrition Facts labels will vary depending upon the brands.

Regular ice cream: **1/2 cup; 140 calories; 7 grams**
Reduced-Fat ice cream: **1/2 cup; 100 calories; 3.5 grams**
Fat-Free ice cream: **1/2 cup; 90 calories; 0 grams**

Star: **Fat-free ice cream**
Bar graph: **Regular = 7 grams; Reduced-fat = 3.5 grams; Fat-Free = 0 grams**

Regular ice cream: **Creamy and smooth; chocolaty and rich; tiny crystals**
Reduced-Fat ice cream: **Shiny and fairly smooth; chocolaty and a little watery as it melts; small crystals**
Fat-Free ice cream: **Shiny with small crystals; chocolaty but watery as it melts; bigger crystals**

Which ice cream had the best mouth feel? Why? **The regular ice cream had the best mouth feel because it has the most fat and the smallest ice crystals.**

Which ice cream had the biggest ice crystals? Why does it have bigger ice crystals? **The fat-free ice cream had the biggest ice crystals. The fat-free ice cream has less fat to separate the ice crystals so they grew bigger.**

Do you think you could eat reduced-fat or fat-free ice cream? **Answers will vary.**

Proficiency Questions (Workbook)

1. c 2. a 3. c 4. a 5. a 6. b

Proficiency Questions (Virtual CD)

1. a 2. c 3. d 4. d