

## REVIEW

## 2

## CHAPTER 2

**Mixed Review**

1. **Understanding Systems** Compare and contrast elements and compounds.

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2. **Creative Thinking** What are some accurate methods you could use to determine the identity of a sample of a white solid?

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3. **Understanding Systems** Distillation is a method that depends on differences in the boiling points of liquids to separate the components of a liquid mixture. Explain why you would separate a homogeneous mixture of two miscible liquids in this way but not a mixture of two immiscible liquids.

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4. **Creative Thinking** Use the kinetic theory of matter to describe why the fragrance of a bar of soap is more apparent to you on a warm day than it is on a cool day.

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5. **Understanding Systems** Are there changes in the physical and chemical properties of a substance when it undergoes a physical change? Is the same true for chemical changes? Explain.

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**Chapter 2 Mixed Review, continued**

**6. Applying Knowledge** Find the density of a substance that has a mass of 31 g and a volume of 68 cm<sup>3</sup>.

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**7. Solving Problems** Determine how many grams of tin would be required to fill a 5.52 L container. The density of tin is 7.265 g/cm<sup>3</sup> (**Hint:** 1 cm<sup>3</sup> = 1 mL).

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**8. Solving Problems** What is the volume of a container needed to hold 25.3 kg of water? (**Hint:** The density of water is 1.00 g/cm<sup>3</sup>.)

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**9. Concept Mapping** Complete the concept map below by writing the correct word or phrase in the lettered boxes.

