

What is humidity?

Lesson Review

PART A Match each term in **Column B** with its description in **Column A**. Write the correct letter in the space provided.

Column A	Column B
_____ 1. filled to capacity	a. capacity
_____ 2. affects air's capacity for holding water	b. humidity
_____ 3. does not change with temperature or pressure	c. saturated
_____ 4. amount of material something can hold	d. specific humidity
_____ 5. amount of water vapor in the air	e. temperature

PART B Circle the phrase in each pair that describes the air that can hold more water vapor.

1. warm air, cold air 2. air at 18°C, air at 37°C 3. 12 kg of air, 20 kg of air

Skill Challenge

Skills: *calculating, hypothesizing*

Each cube stands for a volume of air. The dots in each cube stand for molecules of water vapor. Use the diagrams to answer the following questions.

- Which air is driest, A, B, or C? _____
- Which air is dampest, A, B, or C? _____
- Which air has the highest specific humidity? _____
- Which air has the lowest specific humidity? _____
- If each dot represents 1 gram of water vapor and each cube represents 1 kilogram of air, what is the specific humidity of the air shown in each diagram?

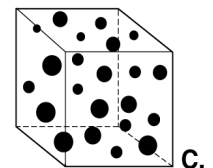
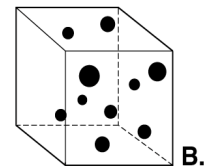
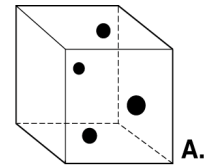


Figure A _____

Figure B _____

Figure C _____

6. In which sample of air is rain most likely to occur soon? Explain. _____

Answer Key

What is humidity?

Lesson Review

PART A

1. c 2. e 3. d 4. a 5. b

PART B

1. warm air 2. air at 37°C 3. 20 kg of air

Skill Challenge

1. A 2. C 3. C 4. A 5. Figure A: 4 g of water vapor/kg of air Figure B: 10 g of water vapor/kg of air Figure C: 22 g of water vapor/kg of air 6. C. The air is closer to saturation. Saturated air is more likely to produce precipitation.