

Pre-test Answers for "Every Breath You Take"

1. Children are more affected by air pollution because _____.

- A. children have a greater risk of exposure in school
- B. many indoor pollutants are released from electronic devices such as televisions and computers
- C. children have smaller airways that are more easily blocked when irritated by pollutants (Objective 1)**
- D. most school buses have diesel engines, which produce large volumes of outdoor pollutants
- E. children are more likely to complain about air pollution

2. Indoor air pollutants can increase over time because _____.

- A. new buildings and homes are more airtight (Objective 1)**
- B. builders are not aware of problems posed by indoor air pollutants
- C. more people spend more time outside and they bring pollutants inside with them on their clothes
- D. homes are less clean today than they were several years ago
- E. people are far more sensitive to them today than years ago

3. Which of the following does not contribute to indoor air pollution in new buildings?

- A. formaldehyde from insulation
- B. asbestos from insulation (Objective 1)**
- C. less fresh air coming in from the outside
- D. mold and bacteria growing in air ducts
- E. less stale air moving from inside the building to outside the building

4. You and your family spend a weekend in a 3-year-old rented beach house on Mustang Island on the Texas Coast. Your family is the first to rent this beach house this season, as it had been closed all winter. Shortly after arriving, members of your family begin to cough and sneeze. Everyone's eyes become very red and they tear constantly. Which of the following is the best explanation for the symptoms that you all are experiencing?

- A. a buildup of combustion products when the house was unoccupied for the winter
- B. growth of mold from the damp coastal weather (Objective 1)**
- C. ozone becoming trapped inside the house as a result of many rainstorms during the winter
- D. growth of viruses in the air-conditioning ducts
- E. build-up of carbon monoxide from the heater while the house was unoccupied for the winter

5. In general, outdoor air pollutants are measured in terms of _____ levels.

- A. formaldehyde
- B. chlorine
- C. ozone (Objective 2)**

- D. carbon monoxide
- E. particulate matter

6. Which of the following is an outdoor air pollutant associated with rural populations?

- A. carbon monoxide
- B. aflatoxin (Objective 2)**
- C. ozone
- D. nitrogen dioxide
- E. benzene

7. You get an email from your cousin, who lives in a large city on the East Coast. He explains that his little sister has been hospitalized with her second case of bacterial pneumonia this year. You express your concern that she has long-term exposure to ____.

- A. carbon monoxide
- B. aflatoxin
- C. ozone (Objective 2)**
- D. burning styrene
- E. benzene

8. Uncle Ned, who has been a hay farmer all his life, has been diagnosed with Farmer's Lung Disease. Which of the following outdoor air pollutants may have contributed to the development of Uncle Ned's condition?

- A. carbon monoxide
- B. particulate matter (Objective 2)**
- C. ozone
- D. nitrogen dioxide
- E. sulfur monoxide

9. One reason why arts-and-crafts supplies may contain more toxic compounds is because ____

- A. substances such as lead and asbestos are required to make the colors brighter
- B. toxic substances are a natural byproduct of the manufacture of arts-and-crafts supplies
- C. these supplies cannot be formulated without including toxic compounds which help them dry faster
- D. the manufacturers of these compounds are not regulated by law so they can contain toxic compounds (Objective 3)**
- E. most of these manufactured supplies are usually contaminated when shipped from the plant to the store

10. Which of the following compounds that may be present in arts-and-crafts supplies can cause nerve damage and possibly death if ingested?

- A. carbon monoxide
- B. lead

C. organic solvents (Objective 3)

- D. mercury
- E. silica powders

11. Mycotoxins are produced by ____.

- A. pesticide use
- B. cigarette smoke

C. mold (Objective 3)

- D. bacteria
- E. radon gas

12. The levels of asbestos, lead, radon gas, and carbon monoxide in new buildings ____ old buildings.

- A. are nonexistent when compared to
- B. are far less than

C. may be the same as (Objective 3)

- D. are far more toxic than
- E. result in more illness than

Post-test Answers for "Every Breath You Take"

1. The majority of harm that is associated with air pollution comes from its effects on the ____.

- A. brain
- B. heart
- C. kidneys

D. lungs (Objective 1)

- E. liver

2. Which of the following best describes the relationship between energy efficient buildings and indoor air pollution?

- A. the more energy-efficient a building is, the less indoor air pollution it has
- B. the less energy-efficient a building is, the more indoor air pollution it has
- C. as energy-efficiency increases, indoor air pollution also increases (Objective 1)**
- D. as energy-efficiency increases, indoor air pollution will decrease
- E. there is no relationship between energy efficiency and indoor air pollution

3. This December, you are visiting an aunt who lives in East Texas in the house in which your great grandmother used to live. You notice the house is quite warm, despite the cold, dry weather outside. You see that she has several old gas heaters burning brightly throughout the house, providing lots of heat. After spending a few hours there, your eyes become irritated and you begin to wheeze. What is possibly causing your reaction?

A. formaldehyde

B. mold

C. combustion products (Objective 1)

D. ozone

E. carbon monoxide

4. Your school built a new library to replace the original one, built in 1947. It is a model of energy efficiency, using 1/3 of the energy of the original. As you are reading one of your favorite science books in the library, you develop a headache and become very nauseated. Which of the following is the best explanation for your symptoms?

A. mold from the particle board and air-conditioning ducts

B. use of space heaters during construction

C. ozone from the air-conditioning ducts

D. formaldehyde from the insulation and carpeting (Objective 1)

E. bacterial build-up from lack of use of the new facility

5. Which of the following statements concerning outdoor air pollutants is correct?

A. all outdoor air pollutants are chemicals

B. outdoor air pollutants worsen asthma and emphysema (Objective 2)

C. most dust masks are not helpful with outdoor air pollutants

D. outdoor air pollutants only occur in cities; there are none found in agricultural settings

E. there are no risks of contracting serious medical conditions from outdoor pollutants

6. Uncle Ned, who has been a corn farmer all his life, has been diagnosed with liver cancer. Which of the following outdoor air pollutants may have contributed to the development of Uncle Ned's cancer?

A. carbon monoxide

B. aflatoxin (Objective 2)

C. ozone

D. nitrogen dioxide

E. sulfur monoxide

7. You are volunteering with a county fire department. You are called to help with a large forest fire in the Piney Woods. One firefighter returns from the field complaining of a headache. She appears to be confused and drowsy. As she takes some water from you, you notice that her hands are shaking. Which of the following could be contributing to the firefighter's problems?

A. aflatoxin

B. benzene (Objective 2)

C. particulate matter

D. ozone

E. formaldehyde

8. One winter, you get an email from your cousin, who lives in a large city on the East Coast. He says that the weather has been cold and the old furnace in the

building has gone out twice this month. He relates that his little sister has been having difficulty paying attention in school. He says that she is becoming very clumsy and thinks she needs glasses, as she is always squinting at the television. You express your concern that she may have long-term exposure to _____.

A. carbon monoxide (Objective 2)

- B. aflatoxin
- C. ozone
- D. burning styrene
- E. benzene

9. Which of the following is not commonly found in arts-and-crafts supplies?

- A. lead
- B. mercury
- C. asbestos

D. carbon monoxide (Objective 3)

- E. cadmium

10. One major problem associated with the asbestos found in some arts-and-crafts supplies is _____.

A. inhalation may cause scarring of the lungs (Objective 3)

- B. ingestion may cause nerve damage
- C. contact may cause liver cancer
- D. ingestion or contact may cause kidney failure
- E. ingestion or inhalation may cause headache, nausea, and vomiting

11. The biggest risk of exposure to environmental toxins for adolescents in the work place is through _____.

- A. ingestion

B. inhalation (Objective 3)

- C. contact
- D. inadequate bathroom facilities
- E. long (10+) hour work shifts

12. Specific information about the risks of toxicity of certain chemicals in the workplace can be found _____.

A. on material safety data sheets (MSDS) (Objective 3)

- B. on the label only (LBL)
- C. through repeated exposure to the compound (RExp)
- D. on toxicity assessment reports (TAR)
- E. on risk management surveys (RMS)