

Student ID #: _____

Provide your unique student ID only so we can compare your answers between the beginning and end of the program/semester.

Teacher's Name _____

Class: _____ **Date:** _____

1. What is the name of the stream closest to your school: _____

2. Name a watershed in which your school is located: _____

SELECT ONE:

3. TRUE / FALSE: I, personally, am unable to take action to improve my community's impacts from the effects of urban heat.

4. TRUE / FALSE: Because of where I live, my personal and family's activities do not impact stream health.

5. TRUE / FALSE: I know what an urban heat island is and could explain it to my friends.

6. TRUE / FALSE: The air temperature difference in an urban heat island compared to wooded land is greater during the nighttime.

7. TRUE / FALSE: Urban Heat Island effects increase energy demands for communities and business residing in one.

8. Urban Heat Islands are

- a. Only a problem in the south or the tropics.
- b. Areas of developed land that are warmer than surrounding undeveloped land.
- c. Important for ecological diversity in the city.
- d. Expensive to maintain and should be better funded.
- e. Are equally a problem for everyone.

9. We can reduce the heating effects of impervious surface by:

- f. Painting it a lighter color
- g. Converting it to more permeable products
- h. Planting vegetation on top or close to it
- i. Directing its runoff to appropriate stormwater management structures
- j. All of the above

10. Which has a higher albedo, an asphalt parking lot or a snow-covered field?

- k. asphalt parking lot
- l. snow-covered field
- m. they have the same albedo

11. To protect streams, stormwater should be
- n. Slowed down
 - o. Cooled off
 - p. Allowed to absorb into the land
 - q. Cleaned of pollutants
 - r. All of the above
12. Air temperatures in the cities:
- s. Increases incidents of asthma and breathing issues in people
 - t. Causes more heat related illness, especially for people without air conditioners
 - u. Stresses trees and animals
 - v. Can stay warm at night, compared to the country.
 - w. All of the above
13. Extreme heat impacts my communities by:
- x. Placing older citizens and young children as risk for illness or death
 - y. Causing additional energy consumption which contributes to more urban heat
 - z. Increasing incidents of breathing and other heat-related emergencies
 - aa. Raising the surface water temperatures in my watershed, changing its overall health.
 - bb. All of the above
14. One of the most inexpensive ways to reduce urban heat is to:
- cc. Plant trees
 - dd. Reduce our thermostats (lower the temperature)
 - ee. Replace old asphalt parking lots with permeable pavers
 - ff. Build smaller homes
15. How could your stream be impacted if a large box store and parking lot was built close by?
(CIRCLE ALL THE APPLY):
- | | |
|-----------------------------------|--|
| gg. Trash/litter | kk. Pollutants (gas, salt, oil and antifreeze) |
| hh. Increase stormwater flow | ll. Increase of soil erosion |
| ii. Water temperature gets warmer | mm. Fish and insects could die |
| jj. Flooding | |