

Date: _____

Name: _____

Macroinvertebrate Ecology

Class/Period: _____

Answer the following in complete sentences:

1) What is an aquatic macroinvertebrate?

2) Why are aquatic macroinvertebrates important?

a)

b)

3) What does it mean if a macroinvertebrate is “sensitive?”

4) Name and describe one of the “two methods commonly used for evaluating water quality” involving macroinvertebrates.

5) List examples of the following:

Intolerant organisms

1. _____

2. _____

3. _____

Tolerant organisms

1. _____

2. _____

3. _____

6) What is the Class, Subclass, Order and Family for the common housefly?

Class: _____

Subclass _____

Order: _____

Family: _____

7) How do aquatic insects cope with the “surface tension” of water (-- so they don’t get stuck)?

8) a. What are the three main stages in the life of a mayfly?

1) egg → 2) _____ → 3) _____

b. This type of life cycle is called _____ metamorphosis

9) a. What are the four main stages in the life of a caddisfly?

1) egg → 2) _____ → 3) _____ → 4) _____

b. This type of life cycle is called _____ metamorphosis

10) What are three ways that insects can “breathe” while living underwater?

a.

b.

c.

11) Draw and label the parts of a caddisfly
(include the head, thorax, abdomen, and gills):

12) Draw and label the parts of a stonefly
including the eyes, foreleg, middle leg, hind leg,
thoracic gills, wing pads and tails):

13) What are four “physical factors that determine what species are found in particular areas” of a stream and briefly describe why they are important.

a.

b.

c.

d.

Date: _____

Name: _____

Classification

Class/Period: _____

Complete the following table by using the laminated guides: “**Freshwater Macroinvertebrates from Streams in Western Washington and Western Oregon**”.

Phyla	Class/Subclass	Order	Families		
Flatworms	1) <i>Planaria</i>				
Segmented Worms	2)				
Mollusks	3)				
	4)				
Arthropods	Crustaceans	5)			
		6)			
		7)			
	Insects	Arachnids	8)		
		Stonefly	9)		
			10)		
			11)		
			12)		
			13)		
			14)		
			Mayfly	15)	
				16)	
				17)	
				18)	
				19)	
			Caddisfly	20)	
				21)	
				22)	
				23)	
24)					
True Flies (Diptera)	25)				
	26)				
	27)				
	28)				
Beetles	29)				
	30)				
	31)				
True Bugs	32)				
	33)				
Hellgrammite	34)				
Odonata	35)				
	36)				