

Anatomy Unit 6 Classwork/Homework

Digestive System Station 1:

Digestive System Station 2:

Digestive System Station 3:

What is the function of the liver?

What is the function of the gall bladder?

What is the function of the pancreas?

Digestive System Station 4:

Fetal Pig Dissection

Take Two and Call Me in the Morning

Clues	Possible Organisms	Health Center Data	Suspect 1

Given the description of Ellie's test results and your notes on bacteria, which antibiotic will definitely not work?

A: Amoxicillin, Penicillin, and other β -lactams

- Blocks the enzyme that normally creates links in peptidoglycan molecules.

B: Streptomycin

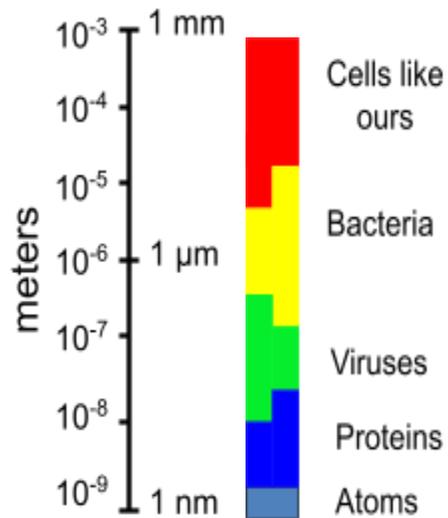
- Blocks prokaryotic ribosomes.

C: Ciprofloxacin hydrochloride (Cipro)

- Blocks bacterial DNA gyrase enzyme needed to counteract excessive twisting of DNA that occurs when circles of DNA are unwound to be copied into DNA or RNA.

How do you know? _____

Describe what the crescent shaped structures look like.



The doctor said that the blobs in Ellie's blood were 1/10 the size of her cells. Could they be *Coxiella*? Why?

What structure is NOT found in all cells?

- Cytoplasm
- DNA
- Cell membrane
- Ribosomes
- Membrane Bound Organelles (nucleus)

Suspect 2	Suspect 3

Why is suspect 2 a good suspect?

Why is suspect 3 a good suspect?

Use what you know about fungus and protists to answer the following question.

Which test of Ellie’s blood would help tell you which eukaryotic suspect she was infected with?

- A. Presence of DNA
- B. Presence of chitin-containing cell walls
- C. Presence of cellulose
- D. Presence of peptidoglycan in cell walls

Suspect 4	Suspect 5

Tamiflu treatment:

Use the description of the West Nile Virus and what you know about viruses to identify the West Nile Virus in the following chart.

	Circular DNA	Nucleus	Divides Asexually	Size	Cell Wall	Sexual Reproduction
A	+	-	+	1 micrometer	+	-
B	-	+	+	10 micrometers	-	+
C	-	-	-	0.1 micrometers	-	-
D	-	+	+	5 micrometers	+	+

What suspect do you think it is? Why?

Why is the absence of neuraminidase important?

Foreign DNA sequence: ACGTGGTCGTT

What sequence is the best match for this DNA?

A: Ellie's nucleus ATGGTCTCAATG

B: Ellie's mitochondria TTGGTCCGTCAG

C: *Coxiella* bacteria TTGGTCGGTCAG

D: *Toxoplasma* nucleus ACGTGGTAGTT

E: *Cryptococcus* nucleus ATGGTGGCAATG

How can we tell that she figured out the right suspect?
