

Biology Mid-Year Review Scavenger Hunt:

Students – this should be an all-inclusive review for you! Please behave in the hallway and use your group members wisely! You must either find the object asked for, draw it, or take a picture of it with the flip camera (if available). Each question answered correctly will get you 0.1pts on your test. This means 10 questions = 1 point! Work together to GIT-R-DONE!

1. Name the elements found in the 4 biomolecules in another language (Spanish, Chinese, etc):
 - a. Carbohydrates:
 - b. Lipids
 - c. Proteins
 - d. Nucleic acids
2. Do the photosynthesis dance for a science teacher and have them sign off that you completed it successfully. You must tell them what these things are chemically too!
3. Do the photosynthesis dance BACKWARDS for a science teacher with the correct terminology – this will represent aerobic respiration! Let them sign off that you completed it successfully!
4. Tell a science teacher (or write down) the chemical equations for photosynthesis and cellular respiration (with coefficients) and have them sign off on it!
 - a. Photosynthesis
 - b. Aerobic respiration
 - c. Anaerobic respiration
5. Find 4 examples (in the school!) of any of the characteristics of life and write them down.
6. Find 8 analogies of cell organelles in the school (MUST INCLUDE REASON WHY OR FUNCTION OF ORGANELLE!)– for example: The Trashman =Lysosome (digest old cell waste)
 - a. Write down the names of people if you use real people!
7. What is the pH of the school's water?
8. What is a testable hypothesis (in the correct format) about the performance of the school on their Biology EOC's?
9. Write down at least 5 chemical elements that you can find in the school. List where you would find them too!
10. Write down a basic substance and an acidic substance in the lunch room and their estimated pH.
11. Is the food in the lunch room organic, inorganic, both, or neither and why? (Think Biology!)
12. Name 4 foods from this week's breakfast/lunch menu that contain high amounts of the 4 biomolecules. List the food with the coordinating biomolecule.
13. What type of organism (autotroph or heterotroph) could you relate to the saturated fat?
Unsaturated fat?
14. How do the plants that surround us help us live? List 3 ways they support life!

15. Find an object with these pigments: chlorophyll, carotenoids, and melanin.
16. List the parts of a nucleotide and the 5 different types of nucleotides (look in later chapters!)
17. List someone that you know who "acts" like a catalyst... and why you think so.
18. Why is a fork like an enzyme? List the reasons why and how they relate to the characteristics of an enzyme.
19. Use the prefixes mono, di, and poly in math terms! (ask a math teacher if they are not busy!)
20. Look at the Human Genome Project poster in my room and list a disorder that you are familiar with that is related to genes found on Chromosome 21.
21. Looking at the same poster from above, compare and contrast the X and Y chromosomes.
22. Find someone with evidence of nuclear division (which causes cellular growth and repair) on the surface of their bodies. List the person's name and the scientific name for this process.
23. If I were to go to Alaska for a long, cold winter, what biomolecule would provide me with insulation?
24. How many amino acids are present naturally? What can I make if I put many amino acids together?
25. Name the macromolecule that makes up the majority of the cell membrane and list a food chain that is "famous" for having LOTS of it in their products.
26. What are 5 indicators that we have used so far? List their names and what they indicate the presence of.
27. Where would you find a large quantity of prokaryotes in the school? List where and what these prokaryotes contain.
28. Where would you find a large amount of autotrophs in the school? List where and what these autotrophs do that is soooo coool!! (We heterotrophs don't have the cellular machinery for this process...)
29. Where would you find a large amount of heterotrophic consumers in the school? List where and what is the largest population that you can count in one habitat.
30. Ask Mrs. Enlow what biome she was born in. Write down 2 abiotic factors and 2 biotic factors that you would find there.
31. Which scientists were responsible for the Cell Theory (there are many!)?
32. If you received a brown bag from the cafeteria that had an opaque marking on it, what does this tell you about your choice of food in the bag?
33. Tell me about a prokaryote that has made Mrs. Bruinsma sick – what is the name of it and 4 cellular structures you could find on it.
34. As you go to the bathroom, you will see a sink with a chemical compound that comes out of it... what is the name of the compound? What are 3 important properties related to it?
35. Where did you see osmosis taking place in the school? Give the location and example.
36. Where did you find diffusion taking place in the school? Give the location and example.
37. If there were protein channels in the school, where/what would they be?

38. If there were carrier proteins in the school, where/what would they be?
39. How could you estimate the population of *Homo sapiens* in the school without counting each of them?
40. What biological process will eventually occur in the cells of the students taking weight lifting at the end of the period? (after using all of their available cellular oxygen)
41. What is an example of a
42. If I were a plant, where would be the best place IN the school to live and why? Why can't I live in Mrs. Enlow's classroom?
43. Where is the "nucleus" of the school? Tell location and your reason.
44. Draw the symbol that you would see during the lab that would tell you to protect your eyes with goggles.
45. What part of the plant makes up the composition of the paper that you are writing on? Ask Mrs. Enlow to confirm.
46. What biological energy molecules have you used during this scavenger hunt and how has its structure most likely changed after you have used the energy within its bonds?
47. Find a container with 21% oxygen in it and write down the remainder of the gas composition.
48. What activity did you witness going on in school that was NOT eco-friendly? What would you suggest in order to fix it? (List the names and location, if applicable)
49. What activity did you witness that was eco-friendly? Why is this beneficial? (List the names and location, if applicable)
50. Use the letters in BIOLOGY and write out any term we have talked about with a 2-3 word description/definition!
 - B- Biology = study of life
 - I
 - O
 - L
 - O
 - G
 - Y