Interpreting PET Images

Name(s)_____ Date_____

1. When you look at the images that make up Set #1 (Master 1.1), how do the four images differ from each other?

2. Why are four images shown in each set of PET images? Why would scientists need to examine more than one PET image taken of a subject's brain?

3. When comparing the images in Set #1 with the images in Sets #2, 3, 4, 5, and 6, how is the activity of the brain in each of these sets different from Set #1's?

Set Number	Identify the image that shows the greatest change (a, b, c, or d)	Describe the change in brain activity
2		
3		
4		
5		
6		

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4. The PET images shown in Set #1 show brain activity in a resting brain. The images in Sets #2 through 6 show activity in the brains of humans who are doing different tasks. When you look at the PET scans and the chart in question #3, what generalizations can you make about the activity of the brain when different tasks are performed?

5. Compare the tasks that the subject performed during each of the PET scans (as shown on the overhead transparency of Master 1.3) with the individual's brain activity. Use the information from the overhead and from the PET images to complete the following chart.

Set Number	Brain region that is more active in the PET image	This region is involved in processing information related to
2	auditory cortex	
3	primary visual cortex	
4	frontal cortex	
5	hippocampus	
6	motor cortex	

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