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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

X-ray Interactions

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|  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  | 7 |  |  |  |  |  | 8 |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  | 9 |  |  |  |  |  |  |  |  |  |  |  |
|  | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 12 |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  | 13 |  |  |  |  |  |  |  |  |  | 14 |  |  |  |
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|  |  |  |  |  |  |  | 15 |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **Across**  **1.** The product of absorption and scattering  **4.** X-rays that interact with the Nuclei  **10.** Contrast used during UGI  **12.** X-ray interactions with energy below approximately 10 keV  **13.** Straight out of...  **14.** \_\_\_\_\_\_\_\_\_ has an anatomic number of 13.8  **15.** Probability of a Compton even is \_\_\_\_\_\_\_\_\_\_\_ proportional to the x-ray beam  **16.** Differential absorption \_\_\_\_\_\_\_\_\_\_\_ as the kVp is reduced  **17.** Produce the dark areas of a radiograph | **Down**  **2.** Which tissue x-ray interaction results in the production of annihilation radiation  **3.** The ejection of a nuclear fragment is part of which interaction  **5.** X-rays that interact with electrons  **6.** X-rays that interact with the whole atom  **7.** Anatomical structures with high x-ray absorption characteristics  **8.** X-rays scattered back in the direction of the incident x-ray beam  **9.** First name Bob, last name  **11.** Quantity of matter per unit volume |