

Topics/concepts/people covered on the quiz:

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|----------------------------------|--|----------------------------|
| alpha radiation | beta radiation | gamma radiation |
| half-life | radiocarbon dating | J.J. Thomson |
| “plum pudding” model | “planetary” model | gold foil experiment |
| Ernest Rutherford | properties of electrons | 3 ways to excite electrons |
| average atomic mass calculations | names and symbols of elements up to Hg | |

Practice questions:

1) Draw labeled diagrams of the “plum pudding” and “planetary” models of the atom.

2) (a) Describe the “gold foil” experiment set-up. Include a diagram.

(b) What happened during the experiment? (Describe the data.) _____

(c) What were three of the conclusions of the experiment? _____

3) How does radioactive carbon dating work?

4) Fill in the chart below:

Name of Radiation	Symbol	What is it?	Why does it happen?	Stopped by?
alpha radiation				
beta radiation				
gamma radiation				

5) Write out the name of each of the following elements. Spelling counts!

Sc _____	Sn _____
Hg _____	Se _____
Mn _____	W _____
Au _____	As _____
Fe _____	F _____
Ag _____	Al _____
P _____	I _____
Pt _____	Xe _____
Cd _____	Ba _____

6) Write the symbols for each of the following elements. Watch your capitalization!

tin _____	chromium _____
titanium _____	chlorine _____
silver _____	silicon _____
gold _____	gallium _____
mercury _____	magnesium _____
tungsten _____	zinc _____
barium _____	beryllium _____

7) Determine the average atomic mass of the following mixtures of isotopes. **Show your work!!** (Check your answer by looking at the periodic table!)

(a) 80.0% iodine-127	(b) 95.0% nitrogen-14
17.0% iodine-126	3.0% nitrogen-15
3.0% iodine-128	2.0% nitrogen-16