Station #1

Element: Copper (Cu)

69.17% of the atoms have a mass of 62.930 amu
The remainder of the atoms have a mass of 64.928 amu

Station #2
Element: Sulfur(S)
94.93% of the atoms have a mass of 31.972 amu
0.76 % of the atoms have a mass of 32.971 amu
4.29% of the atoms have a mass of 33.968 amu
0.02% of the atoms have a mass of 35.967 amu

Station #3:

Element: Antimony (Sb)

__???____% of the atoms have a mass of 120.9 amu
___???___% of the atoms have a mass of 122.9 amu

Station #4

Element: Carbon(C)

98.90% of the atoms have a mass of 12.000000 amu
1.10 % of the atoms have a mass of 13.003355 amu

(A very small percent of carbon atoms are C-11 or C-14. Both of these isotopes are radioactive. Later in the year, we will use C-14 content to calculate the age of organic scrolls/mummies/etc.)

Station #5

Element: Tin(Sn)

Natural Abundance	Isotope Mass (amu)
0.97%	111.904826
0.66%	113.902784
0.34%	114.903348
14.54%	115.901747
7.68%	116.902956
24.22%	117.901609
8.59%	118.903311
32.58%	119.9021991
4.63 %	121.9034404
5.80%	123.9052743

(Tin also has the following radioisotopes: Sn -110, Sn-111, 113, 121, 123, 125, 126, 127)

Station #6

Element: Nitrogen (N_2) (this element is diatomic.)

99.63% of the atoms have a mass of 14.0031 amu
0.37% of the atoms have a mass of 15.0001 amu

Station #7:

Element: Lead (Pb)

1.4% of the atoms have a mass of 203.973 amu
24.1% of the atoms have a mass of 205.974 amu
22.1% of the atoms have a mass of 206.976 amu
52.4% of the atoms have a mass of 207.977 amu
(A small percent of lead atoms are Pb-210, Pb-211, Pb-212, and Pb-214, all of which are radioactive.)

Station #8

Element: Sodium (Na)

Essentially 100% of the atoms have a mass of 22.989767 amu

(Na-22 and Na-24 exist, but they are radioactive and found only in small amounts.)

Station #9

Element: Iodine(I_2) (This element is diatomic.)

Essentially 100% of the atoms have a mass of 126.904474 amu.

(trace amounts of radioactive isotopes exist, including ^{123}I, ^{124}I, ^{125}I, ^{129}I, and ^{131}I. Iodine-131 is produced by atomic bombs and nuclear power plants, and is released in the event of a meltdown. It can cause thyroid cancer because iodine is taken up by the thyroid in order to make the hormone thyroxine. It can also be used as a treatment for some types of thyroid cancer.)

Station #10

Element: Silicon(Si)

92.2297% of the atoms 27.977 amu,
4.6832% of the atoms have a mass of 28.976 amu
3.0872 % of the atoms have a mass of 29.974 amu

Station #11

Element: Magnesium (Mg)

Station #12

Element: Aluminum (Al)

Essentially 100% of the atoms have a mass of 26.9815386 amu

(Al-24, -25, -26, -28, -29, and -30 exist, but they are radioactive and found only in small amounts.)

Station #12

Element: Aluminum (Al)

Essentially 100% of the atoms have a mass of 26.9815386 amu

(Al-24, -25, -26, -28, -29, and -30 exist, but they are radioactive and found only in small amounts.)