

Facts about the Earth

There are many interesting facts about the Earth. One is that it is the third planet from the Sun in our Solar System. Other facts about our planet are: it has an abundance of liquid water, it is the only planet in our Solar System to have life and it has a rocky composition. You may remember that the earth has a number of layers and the top layer is called the crust. There are many elements that make up the Earth's crust but there are eight that are the most abundant.

Of course all of the elements that make up the Earth's crust are found on the Periodic Table of Elements. The earth's crust is made mostly of Oxygen – 46% and Silicon – 28%. It also has 8% Aluminum, 6% Iron and 4% Magnesium. There is a little Calcium – 2.5% and Potassium – 2.3%. About 3.2% of the Earth's crust is made up of small amounts of all the other elements.

Materials: Colored pencils

What To Do:

1. Find each of the following elements on the Periodic Table on the next page and color them the listed color.

- Oxygen – yellow
- Silicon – orange
- Aluminum – purple
- Iron – red
- Magnesium- blue
- Calcium – green
- Potassium - pink

Questions:

1. How many of these elements are metals? _____
2. How many of these elements are metalloids? _____
3. How many of these elements are nonmetals? _____

Periodic Table of Elements

																		18 8A
1 1A	2 2A											13 3A	14 4A	15 5A	16 6A	17 7A	18	
1 H 1.008 Hydrogen	2 He 4.003 Helium	3 Li 6.941 Lithium	4 Be 9.012 Beryllium	5 B 10.812 Boron	6 C 12.011 Carbon	7 N 14.007 Nitrogen	8 O 15.999 Oxygen	9 F 18.998 Fluorine	10 Ne 20.180 Neon	11 Na 22.990 Sodium	12 Mg 24.305 Magnesium	13 Al 26.982 Aluminum	14 Si 28.086 Silicon	15 P 30.974 Phosphorus	16 S 32.066 Sulfur	17 Cl 35.453 Chlorine	18 Ar 39.948 Argon	
19 K 39.098 Potassium	20 Ca 40.078 Calcium	21 Sc 44.956 Scandium	22 Ti 47.867 Titanium	23 V 50.942 Vanadium	24 Cr 51.996 Chromium	25 Mn 54.938 Manganese	26 Fe 55.845 Iron	27 Co 58.933 Cobalt	28 Ni 58.693 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.64 Germanium	33 As 74.922 Arsenic	34 Se 78.96 Selenium	35 Br 79.904 Bromine	36 Kr 83.798 Krypton	
37 Rb 85.468 Rubidium	38 Sr 87.62 Strontium	39 Y 88.906 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.906 Niobium	42 Mo 95.96 Molybdenum	43 Tc (98) Technetium	44 Ru 101.07 Ruthenium	45 Rh 102.906 Rhodium	46 Pd 106.42 Palladium	47 Ag 107.868 Silver	48 Cd 112.412 Cadmium	49 In 114.818 Indium	50 Sn 118.711 Tin	51 Sb 121.760 Antimony	52 Te 127.60 Tellurium	53 I 126.904 Iodine	54 Xe 131.294 Xenon	
55 Cs 132.905 Cesium	56 Ba 137.328 Barium	57 La 138.905 Lanthanum	58 Ce 140.12 Cerium	59 Pr 140.907 Praseodymium	60 Nd 144.24 Neodymium	61 Pm (145) Promethium	62 Sm 150.36 Samarium	63 Eu 151.96 Europium	64 Gd 157.25 Gadolinium	65 Tb 158.93 Terbium	66 Dy 162.50 Dysprosium	67 Ho 164.93 Holmium	68 Er 167.26 Erbium	69 Tm 168.93 Thulium	70 Yb 173.05 Ytterbium	71 Lu 174.967 Lutetium	72 Hf 178.49 Hafnium	
87 Fr (223) Francium	88 Ra (226) Radium	89 Ac (227) Actinium	90 Th (232) Thorium	91 Pa (231) Protactinium	92 U (238) Uranium	93 Np (237) Neptunium	94 Pu (244) Plutonium	95 Am (243) Americium	96 Cm (247) Curium	97 Bk (247) Berkelium	98 Cf (251) Californium	99 Es (252) Einsteinium	100 Fm (257) Fermium	101 Md (288) Mendelevium	102 No (289) Nobelium	103 Lr (260) Lawrencium	104 Rf (261) Rutherfordium	
																		105 Nh (284) Nihonium
																		106 Lv (293) Livermorium
																		107 Ts (294) Tennessine
																		108 Og (294) Oganesson
																		109 Uue (289) Ununennium
																		110 Uub (288) Unbinilium
																		111 Uut (288) Untrium
																		112 Uuq (289) Unquadrium
																		113 Uup (288) Unpentium
																		114 Uuq (289) Unhexium
																		115 Uup (288) Unseptium
																		116 Uuq (289) Unoctium
																		117 Uup (288) Unnonium
																		118 Uuo (286) Unbinilium

Mass numbers in parentheses are those of the most stable or most common isotope.



Materials: Periodic Table, colored pencils

What To Do:

1. Fill in the data table below with the elements and their percentages that were given in the paragraph on the first page.
2. Use the Periodic Table to find each element's symbol.
3. Make a bar graph of the elements found in the Earth's Crust.

Element	Symbol	Percent

Questions:

1. Which three elements are the most abundant in the earth's crust? _____
2. Which element is the least abundant in the earth's crust? _____
3. What are the rules for writing the symbols for elements?



Name _____ period _____

EXIT TICKET

Facts about the Earth

1. What does the word abundant mean?
 - A. not having enough of something
 - B. having a great deal of something
 - C. having too much of something
2. Which of the following is NOT an abundant element found in the Earth's crust?
 - A. Silicon
 - B. Oxygen
 - C. Helium
3. Which of the following symbols for Oxygen is written correctly?
 - A. o
 - B. O
 - C. OX
4. Which of the following symbols for Silicon is written correctly?
 - A. si
 - B. sI
 - C. Si



Name _____ period _____

EXIT TICKET

Facts about the Earth

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