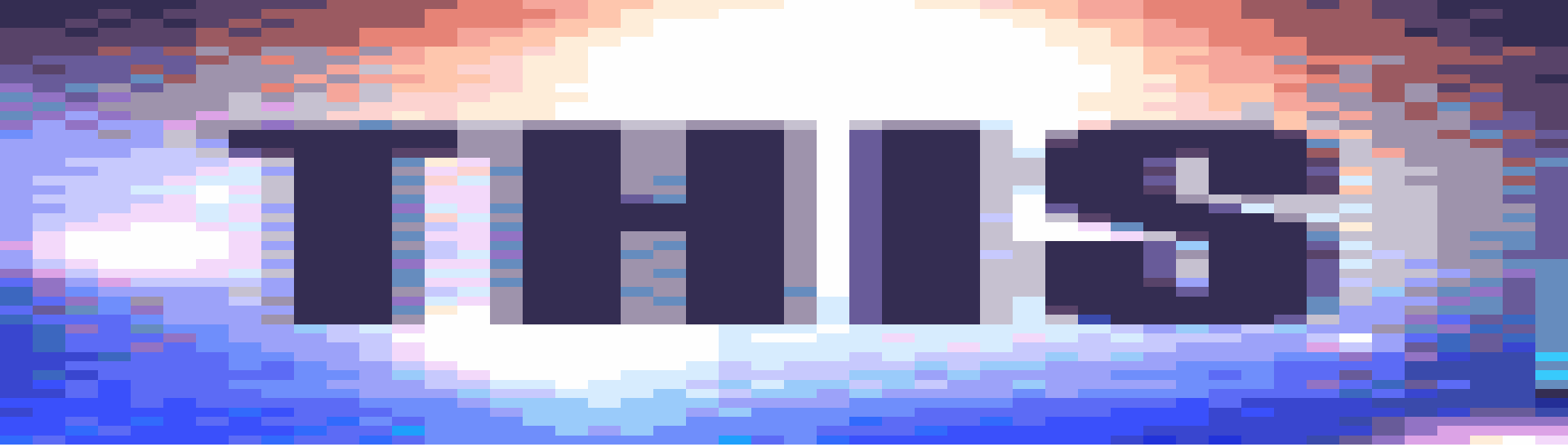


ATOMIC STRUCTURE

Inside the NUCLEUS	ELECTRONS	Subatomic PARTICLES	Calculations	Make it Stable!	Periodic Table
$100	$100	$100	$100	$100	$100
$200	$200	$200	$200	$200	$200
$300	$300	$300	$300	$300	$300
$400	$400	$400	$400	$400	$400
$500	$500	$500	$500	$500	$500

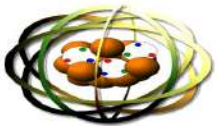
End game and credits

Inside the Nucleus - $100

- The particle that has a positive charge.

- What is a proton?

Back to game board

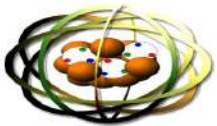


Inside the Nucleus - $200

- Particle that has no charge.

- What is a neutron?

Back to game board

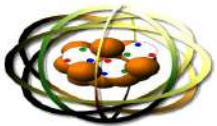


Inside the Nucleus - $300

- 1 amu.

- What is the mass of a proton or a neutron?

Back to game board

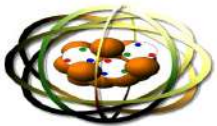


Inside the Nucleus - $400

- Nucleus

- Where are the protons and neutrons located?

Back to game board

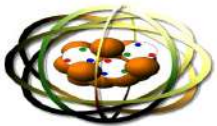


Inside the Nucleus - $500

- Atomic #

- What value represents the # of protons in the nucleus?

Back to game board

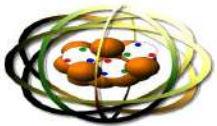


ELECTRONS - $100

- 1/2000th the mass.

- What is the size of an electron compared to a proton or neutron?

Back to game board

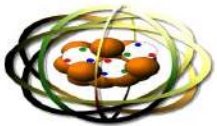


ELECTRONS - $200

- Negative charge.

- What is the charge of an electron or the electron cloud?

Back to game board

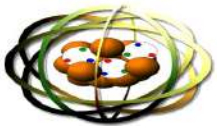


ELECTRONS - $300

- Electron cloud

- Where electrons are located?

Back to game board

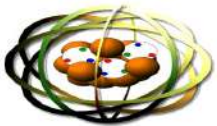


ELECTRONS - $400

- 2, 8, 8

- What are the maximum number of electrons that go on the first 3 energy levels? – *note* this works for geophysical science class only because the third energy in reality contains more and you will learn this in chemistry class.

Back to game board



ELECTRONS - $500

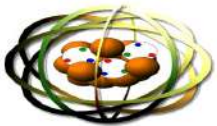
- Groups or families

- How are elements grouped based on number of electrons in the atoms (of the same group or family) outer energy levels?

OR

- How are elements grouped that have similar properties based on outer energy level electrons?

Back to game board

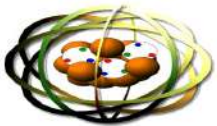


Subatomic PARTICLES - $100

- Protons and neutrons

- What particles makeup the nucleus of the atom?

Back to game board

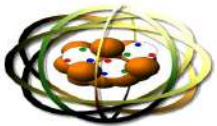


Subatomic PARTICLES - $200

- Electrons

- Which subatomic particle has a negative charge?

Back to game board

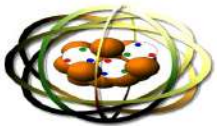


Subatomic PARTICLES - $300

- Neutrons

- Which subatomic particle can vary in atoms of the same element?

Back to game board

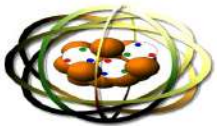


Subatomic PARTICLES - $400

- protons

- Which subatomic particle is always the same for atoms of the same element?

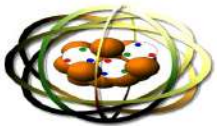
Back to game board



Subatomic PARTICLES - $500

- Several atoms with differing numbers of neutrons, same element.
- What is an isotope?

Back to game board

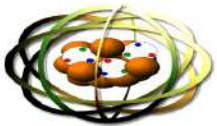


Calculations - $100

- What is the # of protons in an atom of hydrogen?

- 1

Back to game board

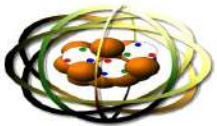


Calculations - $200

- How many electrons does an ion of oxygen have?

- 10

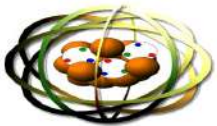
Back to game board



Calculations - $300

- How many neutrons does a atom of gold –Au- with a mass number of 198?
- 119

Back to game board

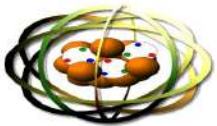


Calculations - $400

- How many electrons are in a neutral atom of strontium –Sr?

- 38

Back to game board

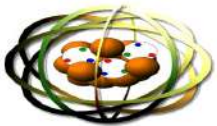


Calculations - $500

- What is the number of neutrons in H-1?

- 0

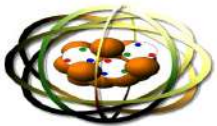
Back to game board



Make it STABLE! - $100

- An atom of sodium

- Lose an electron



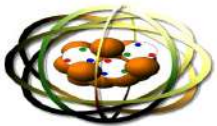
Back to game board

Make it STABLE! - $200

- An atom of helium

- Do nothing! It is already stable.

Back to game board

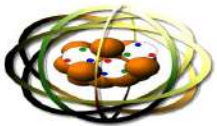


Make it STABLE! - $300

- An atom of sulfur

- Gain two electrons

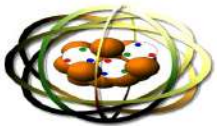
Back to game board



Make it STABLE! - $400

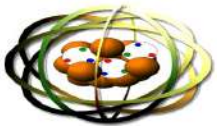
- An ion of magnesium
- Do nothing! It is already stable.

Back to game board



Make it STABLE! - $500

- An atom of fluorine
- Gain an electron.



Back to game board

PERIODIC TABLE - $100

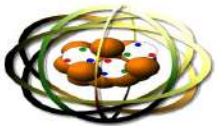
- # above the symbol

- What is the atomic #?

OR

- What is the # of protons in an atom?

Back to game board

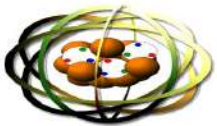


PERIODIC TABLE - $200

- The # below the symbol

- What is the average atomic mass?

Back to game board

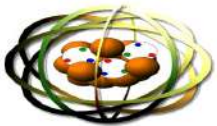


PERIODIC TABLE - $300

- Groups and periods

- What are the vertical columns (elements have similar properties and horizontal rows on the periodic table called?

Back to game board

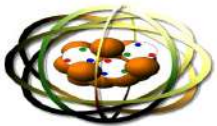


PERIODIC TABLE - $400

- Fe

- What is the symbol for the element iron?

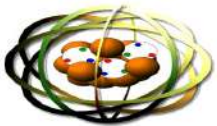
Back to game board



PERIODIC TABLE - $500

- Increasing atomic #
- How is the periodic table arranged?

Back to game board



THANK YOU FOR PLAYING...

ATOMIC STRUCTURE Jeopardy

Atom image from http://www.jlab.org/news/releases/2004/04atom.html

Jeopardy backgrounds from http://www.jeopardy.com

Power point template received from Cheryl Cronbaugh
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