

Element Scavenger Hunt Activity

Materials:

- 18 element fact cards (pages 2–6)
- element questions worksheet (pages 7–8)
- scissors
- scotch tape



Preparation

Print the fact cards and cut them apart.

Make copies of the element questions worksheet (2-sided). Each student will need his or her own copy.

Hide all 18 element fact cards around your classroom where students will be able to find them. You can put them on the back of your classroom door, on chairs, on the computer



Management tips

You may want to make this a silent activity so students don't share answers with each other. You can have the kids work by themselves or with partners.

Don't be afraid to hide the facts in tough places. Kids think it's more fun when they have to search around a little.

Examples of good hiding spots might include:

- sticking out of a book, like a bookmark
- on the side of the bookshelf
- the back of the classroom door
- on the back of the teacher's chair
- lying flat on the classroom bookshelf

Have a plan for students who finish early. You may want to have an assignment for them to complete when they're done, or you may have them help other students find fact cards.



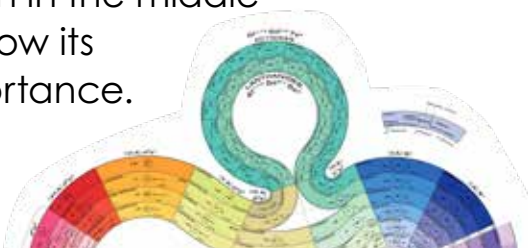
Scavenger Hunt

Elements

Fact Card

1

Not all periodic tables look the same! Some are circular. James F. Hyde, "Father of Silicones," put silicon in the middle to show its importance.



Scavenger Hunt

Elements

Fact Card

2



Maybe five-cent coins should be

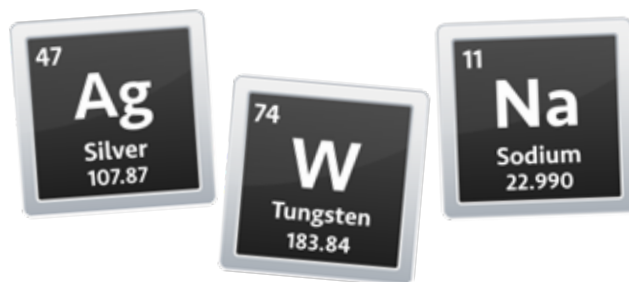


Preview

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At room temperature (68–72 °F, 20–25 °C), mercury is the only liquid metal. Solid mercury melts at –37.89 °F (–38.83 °C).



Some element symbols come from other languages. For example, silver (Ag) is *argentum* in Latin. Tungsten (W) is *Wolfram* in German.



Scavenger Hunt

Elements

Fact Card

5



Albert Ghiorso holds the record for elements discovered: 12 (elements 95–106)! He often worked with Glenn Seaborg, the namesake

Scavenger Hunt

Elements

Fact Card

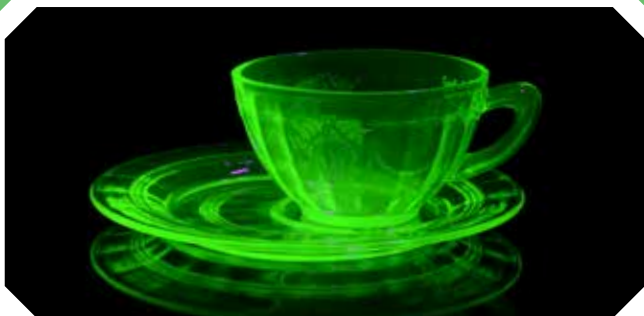
6

Helium has the lowest freezing point. It *never* naturally turns solid! It must be absolute zero (about -460°F , -273°C) and 25 times the normal



Preview

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Most nuclear plants use uranium. So does some glass! Uranium glass glows in UV light. Most contains less than 2% uranium, so it's normally very safe.

Isotopes of an element have different numbers of neutrons. They're named by mass. Carbon dating looks at the ratio of carbon-14 to carbon-12.





Scavenger Hunt

Elements

Fact Card

9



Hydrogen makes up about 74% of the universe, but almost

Scavenger Hunt

Elements

Fact Card

10

All elements have at least one unstable form. Elements 43 (technetium), 61 (promethium), and 83 and above have *no* stable forms. They're always radioactive.



Preview

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Fifteen elements are named directly after scientists—but not their discoverers! Mendelevium (101) honors Dmitri Mendeleev, "Father of the Periodic Table."



Neon signs don't just use neon. For example, hydrogen can make reds and purples. Helium is pinkish. Mercury adds blue tint. True neon is orange-red!



Scavenger Hunt

Elements

Fact Card

13



At normal pressure, tungsten has the highest melting and boiling

Scavenger Hunt

Elements

Fact Card

14



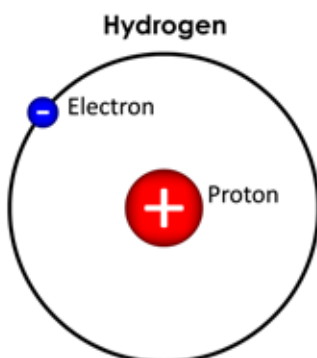
Superman's planet is named after a rare noble gas: element



Preview

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If a molecule gains or loses an electron, it makes an ion. Normal hydrogen has no neutrons. If it loses its electron, it becomes a hydron—a.k.a. a proton!



Some elements glow in the dark, but they aren't all radioactive. White phosphorus glows because it reacts with oxygen. Careful! It's still toxic.



Scavenger Hunt

Elements

Fact Card

17



All group 1 metals react with water. Cesium and francium

Scavenger Hunt

Elements

Fact Card

18



Elements like plutonium are rare in nature, so they are



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Element Scavenger Hunt Activity

Fact Card 1: Which element is Hyde's periodic table designed to highlight?

Fact Card 2: Coin nickels are made of what percentages of which metals?

Fact Card 3: At what temperature does mercury turn from solid to liquid?



Fact Card 6: Which element only turns solid under very high pressure at absolute zero?

Fact Card 7: Most uranium glass contains how much uranium?

Fact Card 8: Which two isotopes are most important for carbon dating?

Fact Card 9: Give the name and percentage of the most abundant atmospheric gas.

Element Scavenger Hunt Activity

Fact Card 10: Which elements are always radioactive yet have atomic numbers below 83?

Fact Card 11: Who is the "Father of the Periodic Table"? Which element is named after him?

Fact Card 12: What color is a neon sign that actually uses neon?



Fact Card 15: A normal hydrogen ion missing an electron can be called what two things?

Fact Card 16: Which non-radioactive element glows due to reactivity with oxygen?

Fact Card 17: What are the two rarest elements that form naturally on Earth?

Fact Card 18: What are two things that elements 95–118 all have in common?

Element Scavenger Hunt Activity

Fact Card 1: Which element is Hyde's periodic table designed to highlight?

silicon

Fact Card 2: Coin nickels are made of what percentages of which metals?

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Fact Card 9: Give the name and percentage of the most abundant atmospheric gas.

nitrogen, 78%

Element Scavenger Hunt Activity

Fact Card 10: Which elements are always radioactive yet have atomic numbers below 83?

technetium (43) and promethium (61)

Fact Card 11: Who is the "Father of the Periodic Table"? Which element is named after him?

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Fact Card 18: What are two things that elements 95–118 all have in common?

They are fully synthetic and radioactive.