

The Atoms Family Album

In the center of Matterville, there is a place called the Nucleus Arcade, where two members of the Atoms Family like to hang out. Perky Patty Proton, like her sisters, is quite large with a huge smile and eyes that sparkle (+). Patty is always happy and has a very positive personality. Nerdy Nelda Neutron is large like Patty, but she has a boring, flat mouth and eyes with zero expression (o). Her family is very apathetic and neutral about everything. Patty, Nelda, and their sisters spend all their time at the arcade.

Around the Nucleus Arcade, you will find a series of roadways that are used by another member of the Atoms Family, Enraged Elliott Electron. Elliott races madly around the Arcade on his bright red chrome-plated Harley-Davidson. He rides so fast that no one can be sure where he is at any time. Elliott is much smaller than Patty and Nelda and he is always angry because these bigger relatives will not let him in the Arcade. He has a frown on his face, eyes that are squinted with anger, and a very negative (-) attitude.

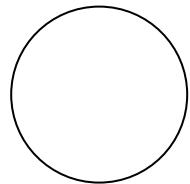
The first energy street can only hold only two Electron brothers. The second energy street, called the Energy Freeway, can hold 8 brothers. The third energy street, called the Energy Superhighway, can hold 18 of the brothers.

The morale of Matterville is stable as long as each negative Electron brother is balanced out by one positive Proton sister. The number of residents in Matterville depends on the Proton and Neutron families.

Challenge: What would happen to the morale of Matterville if one Elliott Electron was kidnapped?

Name _____

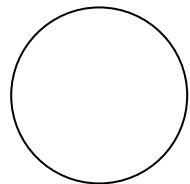
Name:



Description:

Favorite Activity:

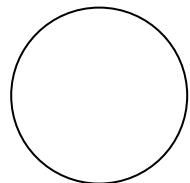
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Description:

Favorite Activity:

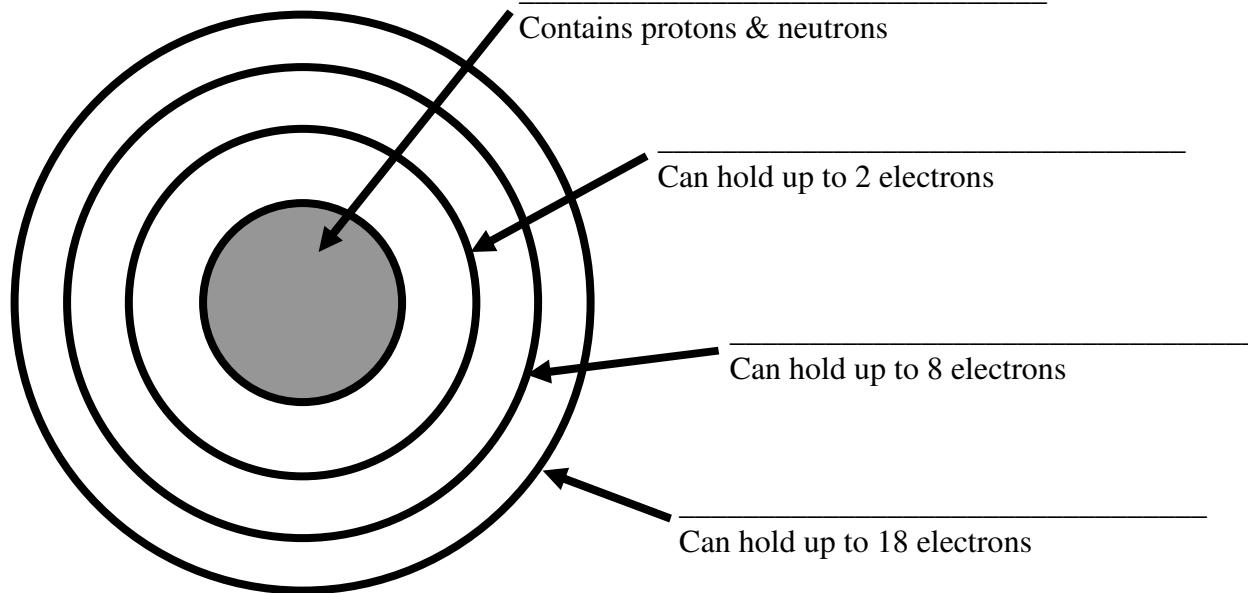
Name:



Description:

Favorite Activity:

Matterville



The Atoms Family Song

1st Verse:

They're tiny and they're teeny,
Much smaller than a beany,
They never can be seeny,
The Atoms Family.
Chorus

2nd Verse:

Together they make gases,
And liquids like molasses,
And all the solid masses,
The Atoms Family
Chorus

3rd Verse:

Neutrons can be found,
Where protons hang around;
Electrons they surround
The Atoms Family.
Chorus

Chorus:

They are so small.
(Snap, snap)
They're round like a ball.
(Snap, snap)
They make up the air.
They're everywhere.
Can't see them at all.
(Snap, snap)

Atoms Family Album

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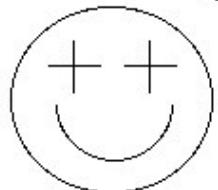
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Name: Pat Proton

Description:
Has a happy, positive (+) personality



Favorite Activity:
Hanging out in the Nucleus Arcade

Name: Nelda Neutron

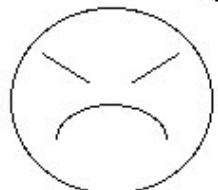
Description:
Has a boring personality
and is neutral about everything



Favorite Activity:
Hanging out in the Nucleus Arcade

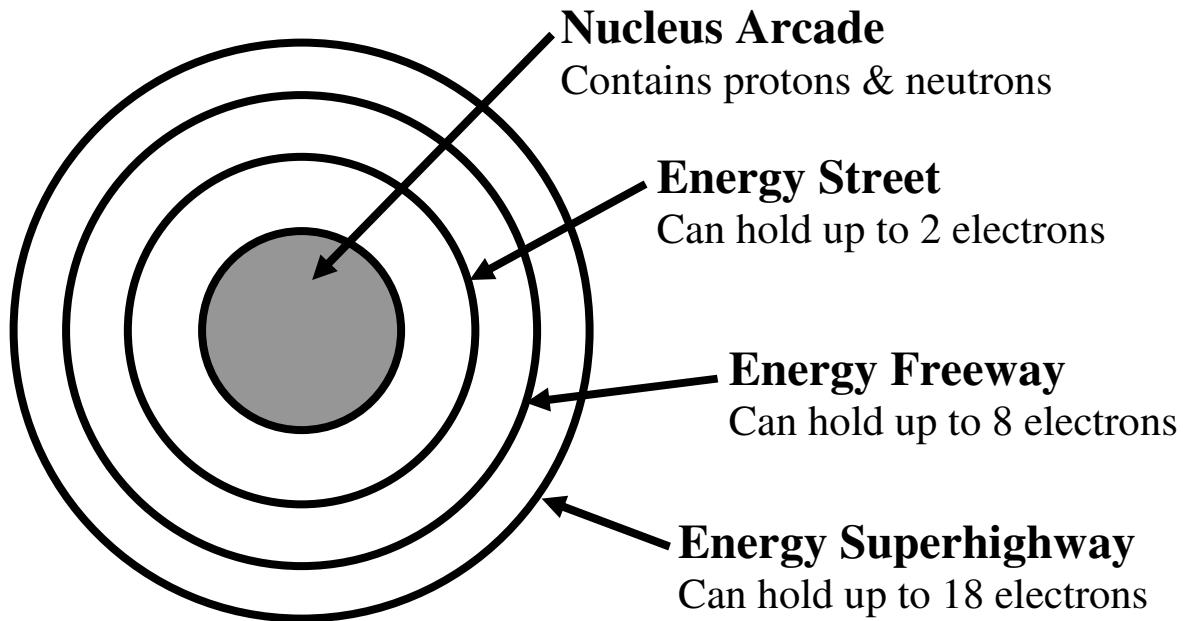
Name: Elliott Electron

Description:
Has a negative (-) personality
and is always angry



Favorite Activity:
Racing around the electron roadways surrounding the Nucleus Arcade

Matterville



Morale of Matterville

The morale of Matterville is stable as long as it has the same number of protons (+) and electrons (-).

If someone kidnaps one Elliott Electron, the morale of Matterville would become positive (more protons).

If one Elliott Electron were to move to Matterville, the morale would be negative (more electrons).