

Name: \_\_\_\_\_

## Particle Flashcards

Welcome to the zoo! Today's activity will introduce you to most of the particles found in the Standard Model.

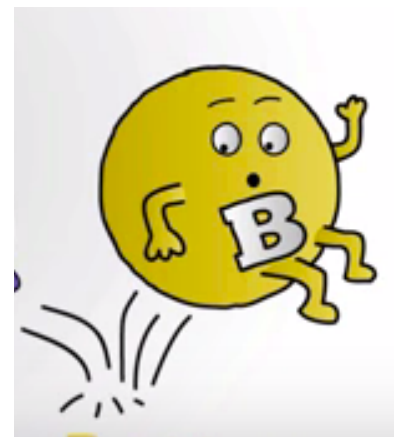
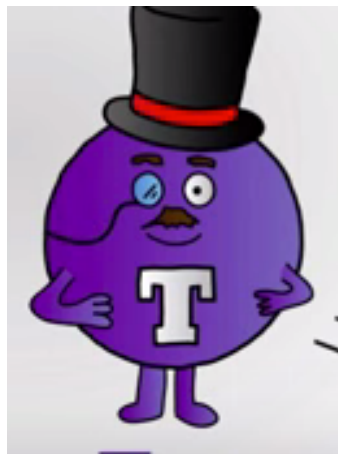


Procedure:

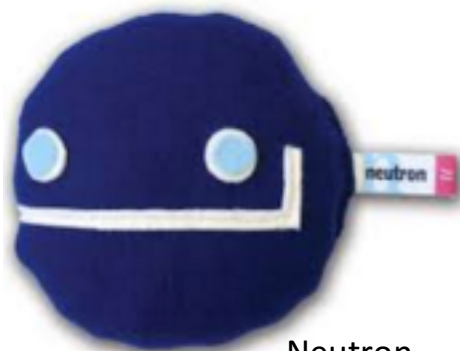
- 1) Cut out each particle.
- 2) Using your data booklet (or other online resources), fill in as much information about each particle as possible.

**\*\*Break for discussion of neutrinos\*\***

- 3) Cut out the labels on the last page.
- 4) Create a visual of the zoo, using the labels and properties to organize them into groups and a hierarchy (ex: flow chart, grid, etc.)



Proton



Neutron

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Quarks: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

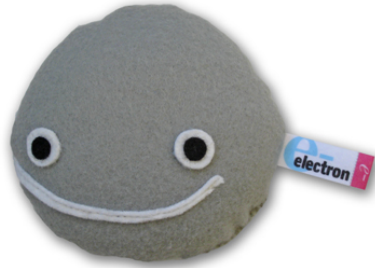
Name: \_\_\_\_\_  
Quarks: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

TAU



●●●●●●●●●●○○○  
LIGHT HEAVY

ELECTRON



●○○○○○○○○○○○○○  
LIGHT HEAVY

MUON



●●●●●●●●○○○○○  
LIGHT HEAVY

Neutrino

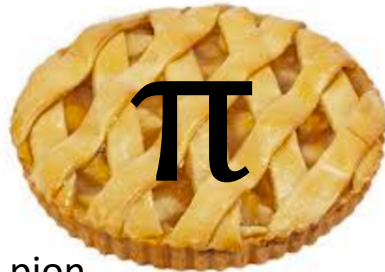


●○○○○○○○○○○○○○  
LIGHT HEAVY

Anti- Neutrino



POSITRON



pion



Kaon

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Pairs With: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_  
Cat: \_\_\_\_\_  
Pairs With: \_\_\_\_\_  
Charge: \_\_\_\_\_  
Lepton # : \_\_\_\_\_  
Baryon #: \_\_\_\_\_  
Strangeness: \_\_\_\_\_

Name: \_\_\_\_\_ Cat: \_\_\_\_\_  
3 Types: 1) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_  
2) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_  
3) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_

Name: \_\_\_\_\_ Cat: \_\_\_\_\_  
3 Types: 1) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_  
2) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_  
3) \_\_\_\_\_ Quarks: \_\_\_\_\_ Charge: \_\_\_\_\_ L#: \_\_\_\_\_ B#: \_\_\_\_\_ S#: \_\_\_\_\_

Quarks

Leptons

Fermions

Mesons

Baryons

Hadrons