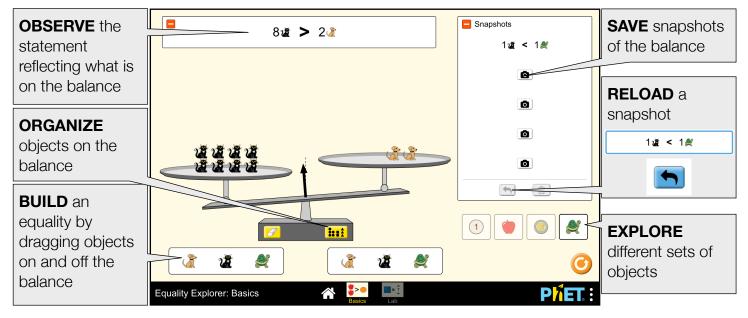


Equality Explorer: Basics

The *Equality Explorer: Basics* simulation allows students to explore the conditions that result in equality and inequality and play with the concept of a variable.

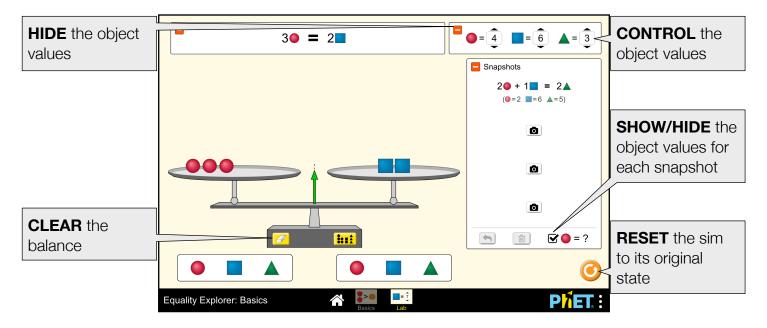
Basics Screen

In the Basics screen, students can discover equality relationships and create functional definitions of equality and inequality.



Lab Screen

In the Lab screen, students can change the values of the objects and build unique equations.



Insights into Student Use

- Students naturally want to find balanced situations. Encourage them to find as many as possible.
- Students enjoy making extremely unbalanced situations. Challenge them to find the "most unbalanced" scenario. What were the values of the objects?

Suggestions for Use

- Explore proportional relationships on the Basics screen.
- Build equations with different values for each shape.

Sample Challenge Prompts

- Find as many equations as possible using the objects on the Basics screen.
- Build an equation on the lab screen. What makes this an equation?
- Identify the values for the square and circle. What could these values represent about the square and circle?
- If a dog equals 1, what does a cat equal?
- Using the Lab screen, balance 2 squares with 3 triangles. What values for the square and triangle make this work? Compare with the class.

See all published activities for Equality Explorer: Basics here. For more tips on using PhET sims with your students, see Tips for Using PhET.

