

Explore Screen

This screen provides an exploratory environment to play directly with the values in a ratio and get immediate feedback in the illustrated ratio.

Necklace Scene

CHOOSE a scene to explore different contexts

PLAY with the values in the ratio

VIEW one or two ratios

COMPARE the necklace patterns (reduced ratios)

REFRESH ratios

Paint Scene

CHANGE the colors of the paint balloons

COMPARE the paint colors on a gradient

Billiards Scene

COMPARE the patterns on two tables

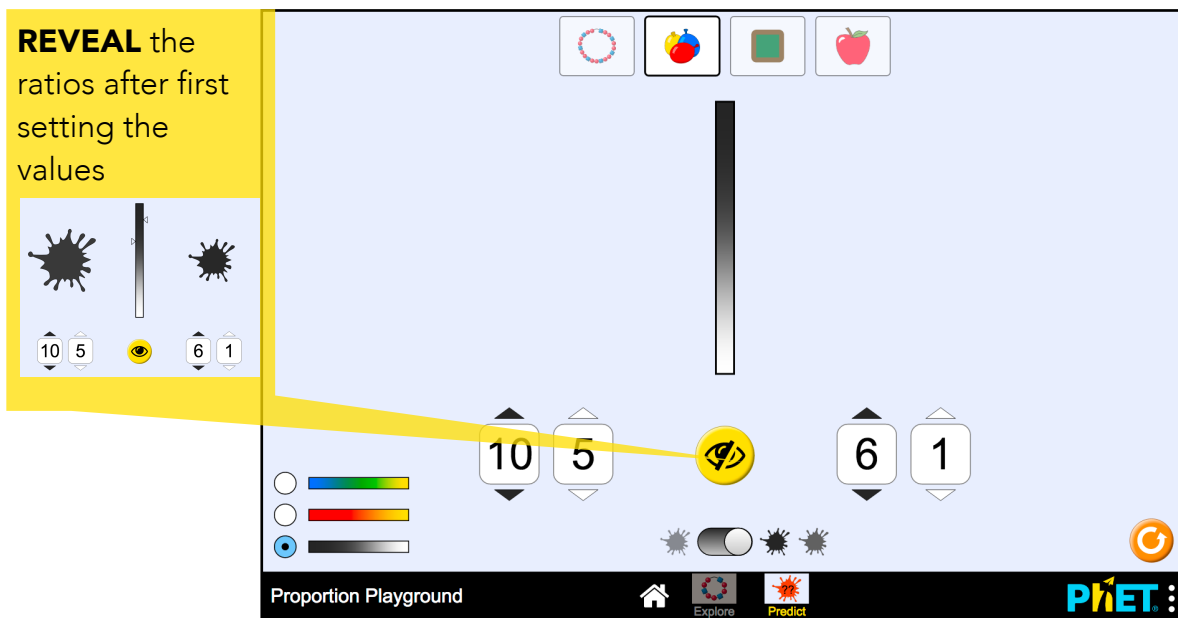
Apple Scene

SHOW the cost per apple

COMPARE the unit cost for two sets of apples

Predict Screen

This screen has one additional control that allows students to make predictions before viewing their ratios.



Insights into Student Use

Each context provides a unique but rich environment for exploring ratios. Students naturally want to investigate each context and may settle on one that they like best until prompted to focus on a specific one.

Suggestions for Use

Sample Challenge Prompts

- Create two paint splotches that are the same shade but different sizes.
- Create as many necklaces as possible with the same bead pattern. Record your findings in a ratio table, then plot the values on a graph. Compare your graph with your classmates' graphs.
- Use the spinners to create the same ratio on every scene. What does your ratio mean when talking about necklaces? Paint colors? Billiards tables? Apple prices?

See all published activities for Proportion Playground [here](#).

For more tips on using PhET sims with your students, see [Tips for Using PhET](#).