

## 6th and 7th Grade Carnival Game Economics

**Driving Question:** Have you ever tried to knock down milk bottles or shoot baskets at a carnival game? How about spinning a wheel and hoping to hit that one payoff? Have you ever won a prize? Have you ever tried "the claw" game to get a stuffed animal? How often are you successful? What attracts you to these games, and who really wins, you or the carnival?

**Content:** Students will create a carnival game and take real world calculations to decide what a fair price is for their game.

[CCSS.Math.Content.6.RP.A.3](#) Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

[CCSS.Math.Content.6.RP.A.3c](#) Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

[CCSS.Math.Content.6.SP.B.5a](#) Reporting the number of observations.

[CCSS.Math.Content.6.SP.B.5c](#) Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

**Major Products:** In *Carnival Game Economics*, students design a carnival skill game and gather data as junior market researchers during the test phase. They'll use this data to help make decisions. After making calculations for probability, students will use pricing options and economic decisions in an attempt to turn a profit with their game of chance or skill. We want learners who can think critically, ask important questions, design and plan based on probabilities, logic, and inference—the skills of responsible citizens.

**Public Presentation:** Other students at Kinetic Academy will come in to play these carnival games! Design and function come together with this authentic assessment. Having thought about their data and having made informed decisions about pricing, our young business owners are putting theory into practice, through their carnival creation!

