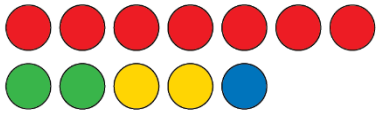
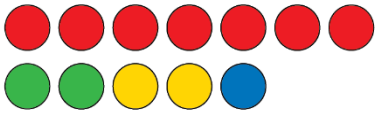
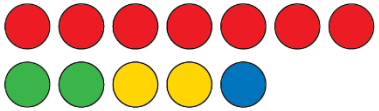
Data Management

Activity 5 Assessment

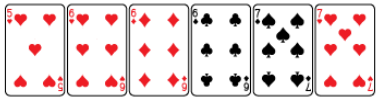
Coding: Exploring Statistics with Coding

Investigating Relative Frequency through Experiments			
Lists all possible outcomes for an experiment with equally likely outcomes. These counters are in a bag.  "I could get a red, green, yellow, or blue counter."	Determines expected likelihood of an event.  "Red: most likely, $\frac{7}{12}$; green: unlikely, $\frac{2}{12}$ or $\frac{1}{6}$; yellow: unlikely, $\frac{2}{12}$ or $\frac{1}{6}$; blue: least likely: $\frac{1}{12}$"	Uses the possible outcomes of an experiment to predict the likelihood of an event.  "There are 12 counters and 7 are red. 12 × 4 = 48, which is close to 50. So, in 50 trials I think I will get a red counter about 7 × 4, or 28 times."	Conducts experiment and organizes collected data. "I conducted the experiment. In 50 trials, I got a red counter 35 times."
Observations/Documentation			

Data Management

Activity 5 Assessment

Coding: Exploring Statistics with Coding

Investigating Relative Frequency through Experiments (cont'd)			
Uses outcomes of experiment to determine relative frequencies. "I got a red counter 35 times in 50 trials. So, the relative frequency of getting red is $\frac{35}{50}$, or $\frac{70}{100}$, or 0.7, or 70%."	Realizes that relative frequencies vary among sets of collected data. "The relative frequency of getting red was different for other pairs of students. I got $\frac{35}{50}$, but others got $\frac{29}{50}$, $\frac{33}{50}$, and $\frac{37}{50}$."	Understands that with more trials of an experiment, the closer the actual results may be to expected likelihoods. "When I conducted more trials, I noticed that the results got closer to the expected likelihoods, but they still didn't match exactly."	Flexibly performs experiments, analyzes results, and compares and justifies predictions.  "The likelihood of drawing a 6 or a 7 is $\frac{5}{6}$. So, when I conduct the experiment 60 times, I would expect to get a 6 or 7 about 50 times. I got 6 or 7 forty-four times. I have to do more trials."
Observations/Documentation			