

Mathematics Lessons for Grades 6-8

“Design a Probability Game”

Shelly Buck / syb.pooh@verizon.net / Purdue University / Indiana Interdisciplinary GK-12

Discipline: Probability, Odds, Independent and Dependent Events

Grade: 6 to 8

Standards

8.6.1/8.6.6/8.7.1

Purpose/Goal

Understand Probability and Odds, Favorable and Unfavorable Outcomes, and Identify Independent and Dependent events;

Preparation

Project supplies: dice, cards, bingo chips, poster boards, markers, glitter glue, etc.

Website

None

Motivation

SKUNK--a game using dice about probability and odds; Discuss familiar games and whether or not they were independent or dependent;

Description

In groups of 5-6, students design a game. Each group is given 1 material (dice, cards, or bingo chips) that they had to incorporate into their game. They were also told whether their game needed independent or dependent events. Each game had to earn points. The students were able to use other materials in addition to their assigned material. Each group had to write three probability questions related to their game.

Assessment

The students played each others games. While playing the games, the students answered 3 probability questions written by the team that designed the game.