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## Rock-Paper-Scissors Activity

At the end of this lesson students will be able to:	Gamestar Episodes related to this lesson:
Find the five elements of game design in classic physical games; change an element in the game understand how the game system reflects that change.	---

**What's on for today:**

In this activity, you'll take apart and change the elements of the classic game Rock-Paper-Scissors to investigate how a change to a small piece of a game system is reflected in the entire game system.

**What you need:**

- It's best to have at least three people who have played Rock-Paper-Scissors before.

**Pacing:**

15-30 minutes

**Lesson**

### INTRO

All games are systems designed to be played. Like any system, games have interconnected elements that make the system what it is. If one element of a system is changed, the entire system will adapt to reflect that change.

There are many elements in a game system, but for now we'll look at the basic five: rules, goals, space, mechanics, and components. Let's break down Rock-Paper-Scissors using these elements:

Space: the space of Rock-Paper-Scissors is a close, but not intimate, area between two players.

Components (the pieces of the game): the hand symbols for rock, paper, and scissors; two players.

Mechanics (what you do in the game): a player "throws" a hand symbol into the game space.

Rules (the parameters of gameplay): One hand symbol beats another and the player who threw the winning symbol gets a point. Paper beats rock. Rock beats scissors. Scissors beats paper. Players throw the hand symbols at the same time (often after counting to 3). Players cannot change a hand symbol once it's thrown, and the symbol must be in both player's lines of sight.

Goals: A player wins a round by throwing a winning hand symbol. Another common goal is to win 2 out of 3 rounds.

### PLAY

1) Have two people demonstrate a normal game of Rock-Paper-Scissors for the group. (Note: "normal" may mean different things to different players. Some may start the game by counting to 3, other may start it by saying "rock, paper, scissors, shoot"). Go over the five elements of the game with the group (as described above).

2) Then ask the demonstrators to change only one element of the game. A good place to start is by changing the space of the game by having the players stand back to back, so that they cannot see each other. Have them play a round of Rock-Paper-Scissors like this and note what happens. Now, the two players alone cannot tell who has won the round without the help from a judge who can see both of the hand symbols. So, by changing the game space, we've also changed the components; we need at least three players instead of two! Have any

Laws of the Jungle  
They're Quite a Pair!  
Wave Craze  
A Fine Balance  
A Thank You Gift  
Recipe for Disaster  
The Slopes of Mount Everest  
A Board Game Surprise  
Game Mechanics Revolt

### Challenge Cards

#### Resources

Creating Content for Classes  
Classroom Set Up  
Premium Teacher Features  
Optional Reading Resources  
Assessment  
Quest Guide  
Comic PDFs

### How to Print/Save as PDF

For Teachers on [GamestarMechanic.com](http://GamestarMechanic.com)

The Team behind **Gamestar**

other elements changed in this version of Rock-Paper-Scissors?

**3)** Divide your class into small groups of 2 or 3 and assign each group an element of Rock-Paper-Scissors to change. Give them 5 minutes to change their element and then present the game in front of the class.

Some example changes are:

Space: players hide their hands behind a folder while they place.

Components: add a component like fire, or bear.

Mechanics: speak the components instead of using hand symbols.

Goals: try to tie/throw the same hand symbol as your partner.

Rules: you have 2 seconds to change your hand symbol after you throw it.

After a group demonstrates it's changed game, ask the group what element they changed originally and what other elements changed as a consequence of changing that first element.

## Circle Up

Reiterate the point that in a system, like the game system Rock-Paper-Scissors, changing one element of a game will also change the others because a system is made up of elements that work together. Ask participants to think about changing one element of a sport (like the space of basketball is in a swimming pool) or one element of a video game (the mechanics of Mario do NOT include jumping, only walking). What else would change in those situations?

**Connection to Game Design:** The success of this exercise is in the transfer of the idea. A game is a system with interconnected elements. That means a game designer has to create these elements to work together in a fun and challenging way. When designing a game, a designer should playtest early and often to see how small changes to elements in the game can affect whole system . . . for better or worse!

#### How did it go?

At the end of this challenge, you should have:

- Played Rock-Paper-Scissors
- Changed an element of Rock-Paper-Scissors and discussed the changes to the other elements

## Comments

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