

# Elemental: An original solitaire card game

## Overview

*Elemental* is a solitaire card game that I invented in 2007. The name reflects a metaphor in which the suits are alchemical elements, reflecting the way that the game involves using all four suits in balanced proportions. I came up with the original game in July, and invented an improved (and simpler) version in October. This page describes both versions.

It is an elimination game, i.e. the goal is to discard all the cards in a 52-card deck. This is achieved by discarding them in groups of four that contain exactly one card of each suit. Because the game ends with cards of a given suit being interspersed rather than collected, the amount of shuffling required between one game and the next is much less than in most solitaires.

Winning requires a blend of skill and luck, and the relevant skills differ from those which dominate in many games. To use an analogy, *Elemental* is not like a campaign across the wilderness for which the terrain is studied and the route planned in advance. It is more like an adventure where each hill is climbed one at a time and success depends upon conserving resources and watching for opportunities. One game takes about fifteen minutes, and with a sharp eye and a little cunning you will win most of them.

## Setting up

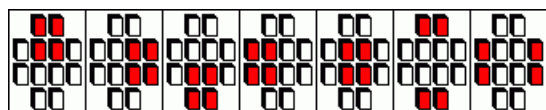


The player deals twelve piles of four cards each, all cards dealt face-down except for the top card in each pile, which should be face-up. The twelve piles make up the **TABLEAU** of 48 cards, and are arranged in the shape of a 4x4 square with the corners missing.

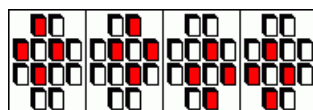
The remaining four cards are called **SPARES**, and are placed face-up on the table separately. The adjacent diagram represents a tableau with the four spares below it.

The geometry of the tableau plays a very important role in this game. A **BLOCK** consists of four piles in the tableau that form the corners of a 2x2 or 2x4 rectangle, and a **CROSS**<sup>1</sup> consists of four piles that form the corners of a symmetric diamond-shape. The four arms of the tableau, each of which contains two piles, are known as its **EXTREMITIES**. All of these shapes are illustrated below.

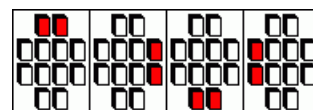
### The seven blocks:



### The four crosses:



### The four extremities:



During the game, the player discards cards from the tableau by transferring them to a discard pile. After a while, some of the twelve piles in the tableau will be reduced to empty spaces. These empty spaces retain the status of being piles in the tableau, and are therefore called *empty piles*.

## Moves

Whenever a face-down card becomes exposed by having no cards on top of it, it can immediately be turned face-up.

Whenever the four top cards in a block include exactly one card of each suit, then those four cards can be discarded together. This is the primary mechanism of the game.

If the four top cards in a cross include exactly one card of each suit, then provided that the current number of spares is less than four, the top card from the pile in the *middle* of the cross may be taken off the tableau to become a new spare. (Note: because the cross is not disturbed, this move can be repeated until there are four spares or the pile in the middle is empty.)

Several moves are common to both the original (July 2007) and revised (October 2007) versions of the game, but the circumstances in which they may be performed are different. These moves are:

- Placing a spare on top of any pile in the tableau (empty or not). The spare becomes the top card of that pile.
- If at least one pile in the tableau is empty, shifting an adjacent pile into that empty location.
- If one of the two piles in an extremity is empty, placing the top card from the pile that isn't empty onto the empty pile.

**The following rules apply to the October 2007 version only.** The above moves A, B and C are all referred to as **MANIPULATIONS**, and no more than three manipulations in a row may be performed. This restriction is lifted whenever you either discard a group of cards or create a new spare, which effectively resets the number of manipulations performed to zero.

**The following rules apply to the July 2007 version only.** Moves A and C can be performed whenever applicable, but move B is restricted by the following rule. A pile that has been shifted in accordance with move B may not be shifted again, and no other pile may be shifted onto the space that it came from.<sup>2</sup> These restrictions are lifted whenever you either discard a group of cards or create a new spare, which effectively frees up all piles in the tableau. (Note that performing move C with a pile that only has one card in it is indistinguishable from performing move B with the same pile, but this is always legal because technically it is move C.)

## Winning

In the **October 2007** version, the game is only won when all the cards are discarded. In the **July 2007** version, it is won when all but the last four cards are discarded.

<sup>1</sup> Think of the stars in the Southern Cross, which are arranged in this way; the name "diamond" is taken.

<sup>2</sup> A good way to keep track of which piles have been shifted where is to place a counter on a pile you have just shifted, nearest the edge facing the space it was shifted from.