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The Game of Cycles is a new game introduced in Su's 2020 book *Mathematics for Human Flourishing*. The game is played on a planar graph or a simplicial complex, and players take turns marking edges with arrows according to certain rules about 'sources' and 'sinks', which give the game a distinct topological flavor. In this talk, we analyze the two-player game for various classes of graphs and introduce many accessible open questions and conjectures appropriate for undergraduate research. (Received September 17, 2019)