

# INTRODUCING SCIENTIFIC MODELS USING MOVIES & KURT VONNEGUT

## Big Idea

Teaching students to develop and evaluate scientific models is in the curriculum, but how can teachers get started? I start by what a good scientific model is. Then, my students and I study and test some fun models that apply scientific thinking to everyday things - specifically, we use the shapes of stories developed by Kurt Vonnegut.

In 1965, Kurt Vonnegut proposed that all stories followed the same 8 shapes or, scientifically speaking, models. Fast forwarding 50 years, researchers had a computer analyze over 1700 stories and determined that Vonnegut was right - but instead of 8 shapes, the computer determined there are 6 emotional arcs to every story

## Instructions

Step 1: Define what a good scientific model is.

Good scientific models...

- are representative of real life observations,
- are predictive and testable, and
- can be modified when new information arises

Step 2: Go Kurt Vonnegut's Models or Shapes of Stories

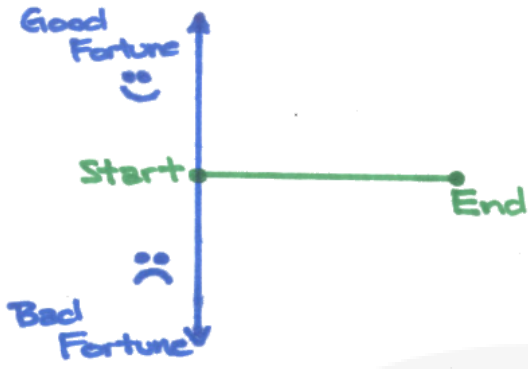
Refer to the following sheet for the 6 models you can use to classify all stories. First, go over the general graph that Vonnegut proposed. Then, go over the curves and provide examples for each.

Step 3: Have students analyze 5 movies of your choosing

When analyzing the movies, have students answer the following questions:

1. Which model proposed by Kurt Vonnegut could this movie be classified under?
2. What is the most common model or arc for movies?

Suggestion: instead of choosing 5 random movies, try to choose movies from the same category (ex. Disney movies, Oscar winners, Summer Blockbusters, Michael Bay movies, etc.)



Vonnegut's graph has "Fortune" on the vertical axis (ie. the good and bad fortune a character goes through during the story) and "Time" on the horizontal axis (ie. beginning to end of the story).

