

## 3-Acts and Patient Problem Solving

Adapted from [Dan Meyer](#)

### The Big Idea

- Take away the text and incorporate as many senses as possible.
- Make it real life and let students see it happening.
- Students have ownership of the questions because they came up with it.
- Remove the literacy challenge.
- Students had to think of the important information.

### Act 1 (The Question):

Pose the conflict and introduce the students to a scenario:

- Teacher says “I’m going show you something I came across and I found it interesting.”
- Teacher asks “What do you notice/wonder?” and “What’s the first question that comes to mind?”
- Students share observations with each other first, and then with the class (T-P-S).
- Teacher collects questions and ranks them by popularity.
- Teacher asks for estimations that are too high and too low-*wrong* answers.
- Teacher asks students to record their actual estimation.

### Act 2 (Gathering Information):

Information, skills, resources to answer your big conflict from Act-1:

- Teacher asks, “What information do you need to answer our *main question*?”
- Teacher offers smaller examples and asks probing questions.
  - What are you doing?
  - Why are you doing that?
  - What would happen if...?

### Act 3 (The Reveal):

Star Wars — big planet blows up.

- Teacher shows the answer and validates students’ solutions/answer.
- Teacher revisits who had the closest estimation.
- Teacher compares techniques, figuring out which is most efficient.

### Act 4 (The Sequel):

- Teacher posed an extension problem.
- Students generalize the math and “algebrafy” the problem.
- Teacher revisits or reintroduces other student questions that may not have been address.

