What is a…..

 **Three Act Math Lesson?**

Three Act Math Lessons were first introduced by Dan Meyer, Math Teacher. Three Act Math Lessons are designed to grab student’s attention and peak their curiosity so they will want to “do some math”. Here is how Dan structures his Three Acts. WCPS has created a [template](https://drive.google.com/open?id=0B5W64FecuRP3OTBaZjdHN2VsQ00&authuser=0) to guide students through a Three Act Investigation.

**Act One**

Introduce the central conflict of your story/task clearly, visually, viscerally, and using as few words as possible. In other words, a lot gets done without many words. This act is very visual, multi-sensory experience with something that hooks you. This is a great place to use the “What do you NOTICE and WONDER?” from the [Noticing and Wondering Strategy](https://sites.google.com/a/wcps.k12.md.us/wcps-mathematics-home-page/home/elementary-math/general-resources/CCSS-Math-Practices/math-practice-1/noticing-and-wondering-strategy).

In this act introduce the video by saying “Here is a brief video. I want you to watch it and see what you notice and wonder.” (Older children can write down things they see.)

After viewing the video ask students to turn to a neighbor and talk to them about what you noticed and wondered. When students have had time to share, ask students to share something their neighbor shared with the whole class (the teacher should start charting these “noticing and wonderings”). Determine a question that the class will investigate together. If there are multiple questions that students want to investigate the teacher might decide to have different groups investigate different questions or every group could investigate the “class question” and then an additional question of their choice.

Ask them what information they need from you (the teacher). Ask them what resources they might need (manipulatives, information, graph paper, etc…).

Ask students to ESTIMATE their answer. To do this they should first think about estimates that would be “too low” and “too high” and then reason what a “just right” estimate would be.

**Act Two**

The students overcomes obstacles, looks for resources, and develops new tools. Students need tools, information, and resources to solve questions from act one and act two. Act two only happens if Act one was success at hooking the student’s interest.

In this act ask students to watch and think about the question they are investigating. They should sketch information they need from act two photos/videos. Students should work together to solve their problem given the information they have. If they find that they need additional information they should gather that information to aid them in solving the problem. Students should record their work so that they can explain to others how they solved their problem.

**Act Three**

Resolves the conflict and sets up a sequel/extension. The third act pays off on the hard work of act two and the motivation of act one. The student is in suspense until the climax where the student actually experiences the fruits of their efforts.

Tell students that they are going to see more that will reveal if they are on the right track with their questions. Ask students to watch again and answer the final question. Teachers should introduce the extension to students who are ready to move on. Again, it is important that students are explaining their thinking and critiquing the reasoning of others.

Here is [Dan Meyer’s Ted](http://www.ted.com/talks/view/lang/en//id/855) talk on Math Instruction which includes his Three Act Math Lessons.

Click here to follow [Dan’s Blog](http://blog.mrmeyer.com/2011/the-three-acts-of-a-mathematical-story/) on Three Act Math Tasks.

Dan Meyer introduced this idea for middle and high school but….this works well in Elementary school also. This blog has many [Three Act lessons for elementary grades](http://gfletchy.com/3-act-lessons/) connected to Common Core Standards.