3 ACT MATH **TIP SHEET**

HOW TO RUN A 3 ACT TASK WITHOUT A HITCH

DURING ACT 1

SPARK CURIOSITY

What caught your eye about the 3 act math task you've found? What made you think it would be useful for your classroom? Often times, we can be tricked into thinking kids will enjoy a problem because it is from the real world, it is relevant, or because there is a video they can watch. These are all misconceptions. Think about how the problem might make a student **curious** to engage and solve the problem.

CREATE ANTICIPATION BY WITHHOLDING INFORMATION

Be sure to It avoid giving students all of the information for the task upfront. When first exploring 3 act math tasks, it is easy to miss the fact that the first video, act 1, typically gives little information about the question we are asking or any measured quantities. Much like a well written movie script, the filmmaker is intentionally giving just enough information to capture the attention of the audience and will build the storyline slowly to keep that attention. During a 3 act math task, we want to build this **anticipation** in our students by **withholding information**.

NOTICE AND WONDER

Once we have built **anticipation** through the **withholding of information**, we can now **empower student voice** by asking them what they **notice** and what they **wonder** about the image or video clip. Be sure to leave this questioning open as asking for them to pay attention to only things related to mathematics may shut down some students, especially those who may not feel confident enough in their thinking.

DURING ACT 2

PROMOTE STUDENT THINKING

A common misconception is that students need to understand the steps, formulas, and procedures before they can have any success when attempting to solve a 3 act math task. The most effective way to implement a 3 act math task or any other type of curious problem is to **promote student thinking** without explicitly pre-teaching the concept. If a lesson is taught before students have had an opportunity to solve a problem using their prior knowledge and through the inquiry process, this can immediately shut down some students who do not feel confident with the newly presented ideas. Pre-teaching can often lead teachers to feel as though 3 act math tasks "aren't working" for their students and may result in abandoning this problem type before they've experienced the benefits.

FUEL SENSE MAKING

Plan with intentionality to **fuel sense making** as you help push student thinking in the direction of the new learning. Making use of the 5 Practices for Orchestrating Productive Discussions as you **anticipate**, **monitor**, **select**, **sequence**, and **connect** the mathematical ideas you have planned with intentionality will be extremely important to maximize student learning. Selected specific students to share out their useful mathematical models and strategies prior to you sharing additional models and strategies you would like to highlight through direct instruction.

DURING ACT 3

THE BIG REVEAL

Just like a great Hollywood movie, Act 3 is the conclusion of the storyline. In math class, this is where we share what really happened in the real world. It's great to have a video or image for this portion, but not always a requirement.

PURPOSEFUL PRACTICE

Plan an opportunity for **purposeful practice**. It is a huge bonus If you can make this portion connected to the context/story to build on the 3 act math task, but is not a requirement.