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| **Lesson Title:** |  **Three Act Tasks and Power Up** | **Lesson #** | **1** |  **Date:** | **April 19, 2018** |
| **Name:** | **Josh Boldt** |  | **Subject:** | **Math / Math writing**  | **Grade(s):** | **4/5** |

**Rationale: (lesson context and reasons why lesson matters)**

This lesson will focus on a math problem consisting of short videos that allow the students to notice, wonder and ask questions. They will develop their own strategies and share them with the class. This sharing allows for students to develop a clear picture of how they approached the problem as well as learn from other classmates and their ideas.

We will also review addition, subtraction, multiplication and division strategies

***Curriculum Connections : (which can be: big ideas / learning standards /curricular competencies/core competencies)***

[*https://curriculum.gov.bc.ca/*](https://curriculum.gov.bc.ca/)

1. Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
2. Visualize to explore mathematical concepts
3. Develop and use multiple strategies
* visual, oral, play, experimental, written, symbolic

 **Learning Intentions- (learner friendly language such as: I can …..)**

* **I can work cooperatively with my classmates to solve a problem**
* **I can understand and share my strategies for solving the problem**
* **I can play new math games with my classmates**

**Prerequisite Concepts and Skill :( for student success)**

* **Ability to write**
* **Prior experiences solving math problems and sharing out**

**Materials and Resources with References/Sources:**

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| **Teacher**  | **Students** |
| 5 power up questions on white board3 Act Task Video on overhead | PencilSmall white boards, markers and socks (for cleaning the boards)Graphic organizer |

 **Differentiated Instruction (DI): (accommodations)**

**Three students have difficulty writing for longer periods (would have more success using a laptop) so I will have three laptops available for them to use for the writing I don’t think they will need them. An EA will also be preset in the class to assist 2 students who require extra help and encouragement.**

**Assessment and Evaluation: (formative and summative possibilities related to curricular connections)**

**I will monitor their progress during the math lesson as well as pay close attention to the strategies that they developed and their participation through-out the lesson. I will collect and review the graphic organizers**

**Organizational/Management Strategies: (anything special to consider?)**

**The students will start the lesson with 5 questions that are written on the white board. “Power Up”. Once they have had time to work on the questions I will look them over/meet with the group to discuss them at the board and hand out the problem. Management will stem from the constant movement and changes of pace in the lesson. While watching the 3 Act Video the class will be seated at their tables.**

***Possible Aboriginal Connections / First Peoples Principles of Learning***

*<http://www.bced.gov.bc.ca/abed/principles_of_learning.pdf>*[and](http://www.bced.gov.bc.ca/abed/principles_of_learning.pdf) *[https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/aboriginal\_education\_bc.pdf](http://www.bced.gov.bc.ca/abed/principles_of_learning.pdf)*

**Lesson Activities:**

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| Teacher Activities | Student Activities | pacing |
| **Introduction** I will start the lesson will begin with a “power up”. math questions will be written on the white board. There will be addition, subtraction, multiplication, and “new to them” division, plus a time question.They will have ten minutes to work through these in their power up books.Check their workReview some of the strategies that they used**Body*** Hand out graphic organizers and explain how they will work.
* On the overhead projector I will play the first Act of the math video and give the students time to write down what they wonder and notice.
* We will then discuss what they found
* The second Act gives them more information and allows them to develop their Main Question
* We will then discuss what questions they have developed and get them to make estimations
* The third Act will explain the answer to the questions they had

**Closing*** **Division math games “AREA Blocks” if time permits**
 | * Work independently on the power up questions using white boards for their work and their power up books for the answers.
* Bring their work to be checked once finished
* Move back to their tables quietly and efficiently
* Participate in the building of strategies with the class as the videos progress
* Allow each class member to give input into the group’s strategy
* Persevere and try, even when frustrated
* Share with the class their answers and approaches to the problem
* Use the graphic organizers effectively and ask if they are unsure
* Play the new math game cooperatively and within the rules
* Clean up and have snack/recess
 | Approx25mins25mins10mins |

**Math Organizer Example:**

Attached to E-mail