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| **Grade: 3** | | | **Subject: Math** | |
| **Materials:**  **Dice – twelve sided**  **White Paper**  **Staples**  **Pencil**  **Colored Pencils** | | | **Technology Needed: None** | |
| **Instructional Strategies:**   * Direct instruction * Guided practice * Socratic Seminar * Learning Centers * Lecture * Technology integration * Other (list) | | * Peer teaching/collaboration/   cooperative learning (Wrap up activity)   * Visuals/Graphic organizers * PBL * Discussion/Debate * Modeling | **Guided Practices and Concrete Application:** | |
| * Large group activity * Independent activity * Pairing/collaboration (Wrap up activity) * Simulations/Scenarios * Other (list)  |  | | --- | | Explain: | | * Hands-on * Technology integration * Imitation/Repeat/Mimic |
| **Standard(s)**  3.OA.3 Using drawings and equations with a symbol for an unknown number, solve multiplication and division word problems within 100 in situations involving equal groups, arrays, and measurement quantities. | | | **Differentiation**  **Below Proficiency:**  Students can create 3-4 pages using 2 or 3 equal groups to create their bugs.  **Above Proficiency:**  Students can create 9-10 pages using any number of groups to create their bugs.  **Approaching/Emerging Proficiency:**  Students can create 5-7 pages using 5-10 equal groups to create their bugs.  **Modalities/Learning Preferences:**  **Visual-spatial: Create bugs to represent equal groups**  **Kinesthetic: Rolling dice and doing the multiplication problems** | |
| **Objective(s)**  **At the conclusion of the lesson, the student will create a bug book using equal groups to create and solve a multiplication problem.**  **Bloom’s Taxonomy Cognitive Level: Create** | | |
| **Classroom Management- (grouping(s), movement/transitions, etc.)**  **Students will be seated at their desks or a table with necessary supplies for project. If students need assistance they will raise their hands and wait for a teacher.** | | | **Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)**    **Dice rolling: The dice must be rolled gently on the table/ground.**  **Rough draft: The Bug Book’s math and spelling will be checked before completing final draft by a teacher.**  **Final draft: Pictures and writing are neat and done with your best work.** | |
| **Minutes** | **Procedures** | | | |
| **1** | **Set-up/Prep:**   * **Have dice available for students** * **Have white paper available to students** * **Get out colored pencils** * **Get out example Bug Books** | | | |
| **7** | **Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)**  **Ha**   * **Have students find their assigned seats on the open area of the floor by inviting them quietly to the reading area.** * **Hold up the example Bug Books to read to the students.** * **Read the example Bug Books to the students and show them the neat pictures.** * **Tell the students they will be creating their own Bug Books to represent what they have learned about equal groups.** * **Give them ideas about the type of bugs as they can be anything and are encouraged to be creative.** * **Dismiss the students back to their seats.** | | | |
| **10-15** | **Explain: (concepts, procedures, vocabulary, etc.)**   * **On the board, do an example of the Bug Book math for students to see.** * **Roll the dice to get two different numbers.** * **Use the first number to represent the number of bugs** * **Use the second number to represent the number of legs on one of the bugs** * **Create an example bug such as a Smiley Face Bug with the appropriate number of bugs and legs.** * **Walk the students through the math step by step. For example:** * **If the numbers 2 and 3 were rolled, this would mean there was going to be two bugs with 3 legs each.** * **Write on the board 2 X 3= L L=3** * **Draw two bugs with three legs each looking like this** | | | |
| **30-60**  **or multiple days** | **Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences,** **reflective questions- probing or clarifying questions)**   * **Pass out the dice to the students** * **Tell them it is their turn to do the math for their bugs.** * **Have students create the number of bugs necessary for their differentiation level.** * **Once they are finished, have the student raise their hand to have their rough draft checked for math or spelling errors** * **They do not have to have the pictures drawn on their rough draft (Maybe one if necessary)** * **If the student has a successful rough draft, give them the white paper they need for the final draft.** * **Remind them to do their best work on this paper.** * **If the student needed to change a few things on their rough draft have them continue to work until these errors have been resolved.** * **Give students time to work on their Bug Books** * **Once they have completed their final draft, they will staple their pages together.** | | | |
| **1** | **Review (wrap up and transition to next activity):**   * **Have students share their completed Bug Books to a partner or the class to recall the math which took place.** | | | |
| **Formative Assessment: (linked to objectives)**  **Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc.**  Have students turn in their rough draft to assess the math and progress during the lesson.  **Consideration for Back-up Plan:**  Have students turn in their rough draft to be returned the next day if necessary. | | | **Summative Assessment (linked back to objectives)**  **End of lesson:**  Students will understand how to create equal groups as it relates to multiplication solving an unknown.  **If applicable- overall unit, chapter, concept, etc.:** | |
| **Reflection (What went well? What did the students learn? How do you know? What changes would you make?):**  **The bug books are awesome! The students love the freedom to be creative. Next time, have the students remain on the carpet for the example bug problem and remind the students to keep the rough draft at their table after it is checked. They need their rough draft handy to transfer information to their final draft. Ideas to consider for next time might include laminating the final products to make them more professional books. Also, the students should do more than 5 bugs if time allows because this allows them to be more creative and really adds to the story. Another change to consider would be to allow the students to be more creative with other parts of the bug instead of just the legs.** | | | | |