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| BEN: Scientific Inquiry (Dolphin Quest) | | |
| Month | | March 17, 18, 19 |
| Objective: | | 1. Scientific Inquiry: Expedition to Dolphin Quest to learn about early scientists and their revolutionary discoveries and how scientists today use research and evidence and continue to help us understand our world. |
| 9:15  1:00 | Arrival | Welcome, introduce teachers, bathrooms. Sign Waiver.  1. Students are split up into two groups.  2. Fruit can be eaten at the end of the expedition. |
| 9:20-10:20  1:05- 2:05 | Mystery Boxes  2 Rotations | **(Group 1) Mystery Boxes (BEN Teacher)**  **Lesson Hook:**   * Once students are seated, show the gift box and ask:  How many of you ever wanted to know what was inside a wrapped birthday (or other holiday) package?  How many of you shook the box?  How many of you guessed correctly? * Explain to students that carefully observing things we cannot see may still be observed. * Team Jobs- Scribe, Runner and   **Guided Practice**   * Remind students they may not open them.  Shaking them is permitted.  Talk quietly to each other.  They are working as scientists.  Work cooperatively. * As they discuss what may be in the box, remind students the importance of listening to each other.  Respect opinions of “other scientists.” * Rotate the all 6 boxes until each group has had a chance to observe and make guesses of what is inside. * Once complete, allow each group to share the guesses for each box.  List their guesses on the board for each box number you use. |
| 10:20- 11:45  2:05- 2:30 | Dolphin Quest | **(Group 2) Dolphin Identification (DQ Teachers)**    **Supplies:**   * Dolphin Identification Laminates * Dolphin Hypothesis Testing Table * Clip boards * Stop watches/ spare watches if available   (Group 2) **Theme: Scientific Enquiry**   * **Ep – Ideas and evidence**   + Dolphin Identification exercise (15 mins)     - Discuss difficulty of studying animals especially in the wild     - Using observation to test the prediction of the number of animals present   **(Whole Group- come together for investigative work)**  **Students will collect data on how fast the dolphins are able to swim.**   * **Ep – Plan investigative work /Eo – Obtain and present evidence –** through a live demonstration with our dolphins (30 mins)   + Hypothesis 1 – “Dolphins are 8.5 feet in length”   + Hypothesis 2 - “Dolphins body temperature is 98.7 degrees”   + Hypothesis 3 – “Dolphins are 48.5 inches in width”   + Hypothesis 4 – “Dolphins can swim as fast as 18 mph”   + Hypothesis 5 – “Dolphins can exert a force of 1084 N”   + Evaluate alternative explanations about scientific claims we tested * **Eo – Consider evidence and approach**    + Bring the facts learned back to the classroom and analyze the data observed. |
|  | Dolphin Encounter | Encounter with the dolphin- Students will experience a dockside interaction with a Marine Mammal Specialist.  They will identify various aspects of dolphin anatomy and behaviours to relate to their classroom learning. |
| 11:50-11:55  2:50- 2:55 | Closure  Social Emotional | *Closure:*  *Question- How many of you were nervous or scared? Explain Why.*  *Became brave… What happened?*  *Celebrate their growth!* |
| 12:00  3:00 | Dismissal and Fruit | Mr. DeGraff- Will collect and drop-off from the front of the museum. |
| Other: |  | 1. Hats 2. Water 3. Request central schools leave 10 minutes earlier. (8:45) |