Core Skills Analysis

Physical Education

- BJ practiced coordinated arm and leg movements while swimming, enhancing gross-motor skill development.
- The change of environment from an indoor pool to a beach required BJ to adapt to different water conditions, supporting proprioception and balance.
- Swimming provided aerobic exercise, helping BJ develop cardiovascular endurance appropriate for his age.
- By moving between the aquatic centre and beach, BJ experienced water safety concepts such as depth awareness and safe entry/exit techniques.

Science

- BJ observed how objects behave in water, laying a foundation for understanding buoyancy and density.
- Polishing rocks gave BJ a hands-on look at mineral surfaces, encouraging inquiry into rock types and the processes that smooth them.
- The contrast between fresh-water pool water and salty ocean water offered an informal lesson on how salinity affects buoyancy and water properties.
- BJ’s tactile interaction with rocks fostered observation skills and the scientific practice of describing physical characteristics.

Language Arts

- BJ sequenced two distinct swimming experiences, strengthening his ability to organize events chronologically.
- He used specific vocabulary (e.g., "aquatic centre," "beach," "polishing") which expands his descriptive language repertoire.
- Discussing the activity provides opportunities for BJ to practice storytelling, improving oral fluency and narrative structure.
- Writing about the rocks encourages precise adjectives and comparative language (smooth vs. rough).

Tips

To deepen BJ’s learning, try a water-safety mini-lesson where he practices identifying safe swimming zones and demonstrates proper entry and exit techniques. Keep a simple swim-log chart for a week, recording distance swum, water temperature, and how he felt, which reinforces math and self-reflection. Conduct a hands-on buoyancy experiment using eggs, salt, and fresh water to visualize why ocean water feels different. Finally, start a rock-journal: after each polishing session BJ can sketch the rock, note its colour, texture, and guess its type, then compare his guesses with a field guide.

Book Recommendations

- Swimmy by Leo Lionni: A classic picture book about a brave little fish who leads his friends to safety, reinforcing themes of teamwork and courage in the water.
- National Geographic Kids Everything Rocks and Minerals by Kathy Furgang: A vibrant, fact-filled guide that introduces kids to rock types, how they form, and fun ways to identify them.
- The Magic School Bus Chapter Book #5: The Rock Star by Anne Capeci: Ms. Frizzle takes her class on a field trip to explore rocks, minerals, and fossils, blending science facts with engaging

storytelling.

Learning Standards

- ACPMP058 – Develop movement skills through swimming (Health and Physical Education).
- ACPMP072 – Demonstrate safe practices in aquatic environments (Health and Physical Education).
- ACSSU011 – Investigate the properties of water, including salinity and buoyancy (Science).
- ACSSU001 – Describe Earth’s surface features and materials, such as rocks and minerals (Science).
- ACELA1645 – Use language to sequence events and describe experiences (English).

Try This Next

- Worksheet: Measure the volume of different objects using water displacement and record results in a table.
- Drawing task: Create a comic strip of BJ’s beach swim, labeling safety equipment and water conditions.
- Rock-polishing journal: Sketch each rock before and after polishing, write three adjectives, and hypothesize its mineral type.
- Simple experiment: Test buoyancy of an egg in fresh water vs. salty water to explain why BJ felt more buoyant at the beach.