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# Maroubra Beach Adventure: A Detective's Guide to Science and Storytelling

## Materials Needed:

- Clipboard and pencil
- Printout of "Sensory Word Bank" worksheet (described below)
- Printout of "Beach Observation Chart" (described below)
- Blank postcard (or a piece of cardstock cut to size)
- Colored pencils or crayons
- Binoculars (optional, but fun for bird watching)
- Camera or phone for taking pictures (optional)
- Bucket for gentle tide pool observation (for temporary viewing, not for taking animals home)
- Appropriate beach gear: sun hat, sunscreen, water bottle, and snacks

## Learning Objectives

By the end of this lesson, Pat will be able to:

- **(Science)** Observe and record environmental conditions, including weather, tides, and local wildlife at Maroubra Beach.
- **(English)** Use a variety of sensory adjectives (sight, sound, smell, touch) to describe a natural setting.
- **(Synthesis)** Combine scientific observations and descriptive language to create a piece of creative writing (a postcard).

## Part 1: The Beach Detective's Briefing (Before the Trip)

**Time:** 20 minutes

This part prepares Pat for the "mission" by introducing the tools and concepts needed for observation.

### Activity 1: Gearing Up with Sensory Words (English)

1. **Introduce the Mission:** "Pat, today you're going to be a Beach Detective! Your mission is to explore Maroubra Beach, gather clues using your senses, and report your findings. To be a great detective, you need the right words."
2. **Sensory Word Bank Worksheet:**
  - Provide Pat with the worksheet. It should have two parts:
  - **Part A (Matching):** A column of beach-related images (a big wave, wet sand, a seagull, the sun) and a jumbled list of sensory adjectives (crashing, gritty, squawking, warm, salty, bright). Pat draws lines to match the words to the pictures.
  - **Part B (Sentence Frames):** Simple sentences with blanks for Pat to fill in using words from the list. For example: "The ocean spray tasted \_\_\_\_\_. " or "I felt the \_\_\_\_\_ sand between my toes."
3. **Discuss:** Briefly talk about the five senses and how they help us explore the world. "We'll use

these words as clues when we get to the beach!"

## Activity 2: Preparing Your Field Notes (Science)

1. **Introduce the Observation Chart:** "Every good detective needs a notebook. This is your Beach Observation Chart. We'll use it to keep track of all the important evidence we find at Maroubra."
2. **Explain the Chart:** Go over the columns of the chart:
  - **Weather:** (e.g., Sunny, Cloudy, Windy, Calm)
  - **Tide Level:** (e.g., High Tide, Low Tide - you can check this online beforehand)
  - **Animal Sightings:** (What did you see? How many? What was it doing?)
  - **Landscape Sketch:** (A blank space for Pat to draw the coastline, a cool rock formation, or the waves)
3. **Tide Pool Prep:** "One of the best places to find clues is in the tide pools! When the tide is low, little pools of water are left behind in the rocks, and amazing creatures live there. We have to be very gentle and respectful detectives."

## Part 2: The Field Investigation (At Maroubra Beach)

**Time:** 1 - 1.5 hours

This is the hands-on part of the lesson where Pat actively engages with the environment.

### Activity 3: Observing and Recording

1. **Initial Observation:** Upon arrival, find a safe spot to sit. Ask Pat, "Detective, what's your initial report? Let's fill out the Weather and Tide Level on our chart."
2. **Sensory Exploration:** Encourage Pat to use all senses.
  - "What sounds do you hear? Let's write that down." (crashing waves, calling gulls)
  - "What does the air smell like?" (salty, fishy)
  - "How does the sand feel?" (warm, gritty, wet, cool)
3. **Animal Hunt:** Walk along the shore and rock platforms (safely!). Use binoculars to spot birds. Record all sightings on the chart.
4. **Sketching the Scene:** Have Pat sit and draw what they see in the "Landscape Sketch" section of the chart. This encourages close observation of shapes and patterns.

### Activity 4: Tide Pool Investigation & Pop Quiz

1. **Explore Gently:** If the tide is low and it's safe, explore the rock pools. Remind Pat to look with their eyes first and to touch gently. If you lift a rock, always put it back exactly as you found it.
2. **Detective Pop Quiz:** While looking, create a fun learning moment with this quiz. "Great detective work! Let's see if you can solve this mystery. **Which tide-pool animal hides under rocks when the water recedes?** Is it...
  - A) A seagull
  - B) A crab
  - C) A dolphin"

*(Discuss the answer: B! Crabs and other animals hide under rocks to stay moist and safe from predators.)*

## Part 3: The Detective's Report (After the Trip)

**Time:** 20-30 minutes

This is where Pat synthesizes the information and experiences into a creative product.

### Activity 5: Writing Your Postcard (Assessment)

1. **Debrief the Mission:** Look over the completed Beach Observation Chart together. "What was the most exciting thing you saw? What was the most interesting sound you heard? You've collected excellent evidence."
2. **Introduce the Writing Prompt:** "Your final task, Detective Pat, is to send a secret report to a friend. You will write a postcard about your mission."
3. **Provide the Prompt:** "Write a postcard to a friend describing the most exciting thing you saw at Maroubra beach."
4. **Guide the Writing:** Encourage Pat to:
  - Use the Observation Chart for facts (e.g., "I saw three silver gulls!").
  - Use the Sensory Word Bank for descriptive words (e.g., "The waves were loud and crashing!").
  - Draw a picture on the other side of the postcard of what they are describing.

### Differentiation and Extension

- **For Support:** Provide sentence starters for the postcard, such as "Guess what I saw today...", "The beach was so...", or "My favorite part was when..."
- **For Extension:** Challenge Pat to choose one animal from the observation chart and write a short story from its point of view. Or, use a field guide or the internet to research one of the creatures found and write three new facts about it.

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