Below is a flexible, one-week (5 day) combined science + math lesson plan designed specifically for an 8-year-old with PDA and ADHD. Each day contains short, choice-based mini-lessons (math + science), sensory breaks, and lots of opportunities for child control and movement. Use whichever parts the child enjoys; the plan is intentionally modular so you can pause, switch, or repeat activities as needed.

General pacing notes (flexible):

- Keep sessions short: 10–20 minutes per mini-lesson, 5–10 minutes for reflection. Total focused time per day ~45–70 minutes, split across the day.
- Use a visual timer (e.g., sand timer or simple digital timer) and 2–3 sensory/movement breaks.
- Offer choices and low-demand language: “Would you like to do A or B?” “Which one feels fun today?” Let child lead the order when possible.
- Have rewards that aren’t demanding (choice of game, outdoor time, sticker, special role).

Day 1 — Measurement (math) + States of Matter (science)

1. Lesson Title
    - Measuring Things + Discovering Solids, Liquids, and Gases
2. Learning Objectives (SMART)
    - Math: By the end of a 15-minute activity, the student will measure 6 household objects (2 short, 2 medium, 2 long) using a ruler or measuring tape and record lengths to the nearest centimeter.
    - Science: By the end of a 15-minute experiment, the student will correctly classify three samples (ice, water, air in a balloon) as solid, liquid, or gas and describe one observable property for each.
3. Materials Needed
    - Ruler or tape measure, measuring cup
    - Ice cube(s), clear cup of water, balloon partially inflated
    - Paper and pencil or worksheet with three boxes
    - Timer, small prizes/stickers
    - Optional: playdough (solid), spray bottle (mist = gas), kettle only with adult supervision (if demonstrating steam, otherwise skip)
4. Lesson Introduction (engaging hook)
    - Start with a “treasure hunt” choice: “Would you like to measure things in the living room or the kitchen?” Let child pick 6 items to measure. For science: hold up an ice cube and a cup of water and ask “Which one looks like it could change shape? Which one could we blow up?”
5. Instructional Procedures
    - Exploration:
    - Math: Child measures chosen objects with ruler/tape and records lengths (parent models one).
    - Science: Child handles (or touches) ice cube, observes water in cup, squeezes balloon. Talk about what changes happen.

- Explanation:
- Define solid, liquid, gas with simple language and examples (solid = keeps shape; liquid = takes shape of container; gas = fills space).
- Show measurement notation (cm) and how to read a ruler (model a few times).
- Application:
- Sort the three samples into labeled boxes on paper and write one property for each (e.g., “ice is cold and holds shape”).
- Math extension: compare 2 items and decide which is longer and by how many cm.
- Reflection:
- Ask: “Which measurement was the most surprising?” “Which state changed when we left it out?” Child can draw a quick picture or tell a story.

6. Assessment and Evaluation

   - Informal: Observe measuring technique, listen to classification explanations, check recorded numbers.
   - Adjustment: If measuring is hard, use nonstandard units (paperclips, blocks) then transition to ruler. If science concepts are tricky, repeat with more examples (sand = liquid-like? Bad example—use playdough and water).

7. Integration with Other Subjects

   - Literacy: Label drawings and write 1–2 sentences describing an object or state of matter.
   - Art: Make a collage of solid/liquid/gas pictures cut from magazines.

8. Differentiation and Personalization

   - For PDA: Offer two activity locations and let child choose order.
   - For ADHD: Keep hands-on, let child stand or move while measuring. Offer a fidget toy during explanation.
   - Enrichment: Measure items in mm or convert cm to m.
   - Support: Use larger numbers and tape measure, or do paired measuring with parent.

9. Real-Life Applications and Field Activities

   - Cook together and measure ingredients (liquid vs. solid).
   - Nature walk: measure leaf lengths, talk about ice puddles/pooled water.

10. Resources for Further Learning

    - Khan Academy Kids (measurement games)
    - “Measuring Penny” by Loreen Leedy (book)
    - Simple video: “States of Matter for Kids” (short animated clip)

Day 2 — Fractions (math) + Plant Growth & Life Cycle (science)

1. Lesson Title

   - Split it Up: Fractions with Food + Grow a Bean

2. Learning Objectives

- Math: In a 20-minute session, the student will identify and create 1/2, 1/3, and 1/4 using real objects (paper, fruit, or LEGO) and match them to simple fraction symbols.
- Science: Over the day/week, the student will plant a seed in a jar and record at least two observations of sprouting in a journal (date + picture/description).

3. Materials Needed

   - Paper plates, playdough, sandwich or small pancakes, or LEGO pieces
   - Paper, markers, scissors
   - Bean seed (or fast-germinating seed like radish or cress), clear jar or plastic cup, cotton wool/paper towel, water
   - Observation log (simple notebook)

4. Lesson Introduction

   - Offer snack choice: “Would you like to divide an apple or a pancake?” Use the snack to introduce halves/quarters visually. For science: show a jar with a seed sprouting (or a photo) and ask “Shall we make our own tiny garden?”

5. Instructional Procedures

   - Exploration:
   - Math: Child physically divides the snack or paper circle into halves, thirds, fourths. Use color or stickers to mark pieces.
   - Science: Plant the seed together—moisten cotton, tuck seed against jar wall for observation.
   - Explanation:
   - Explain fraction words and symbols using the pieces: 1/2 = one of two equal parts.
   - Describe seed needs: water, warmth, light.
   - Application:
   - Math: Match fraction cards to the actual divided items. Play a quick “Which is 1/3?” game with choices.
   - Science: Place jar in chosen spot, label with date, and make first journal entry (drawing or photo).
   - Reflection:
   - Ask child to show favorite fraction and say why. For the plant, ask what they think will happen tomorrow.

6. Assessment and Evaluation

   - Informal: Child shows correct fractions and explains them. Check that seed is planted properly and journal entry made.
   - Adjustment: If fractions are confusing, use only halves/quarters and revisit thirds later. If seed care is missed, set a simple routine (parent reminder).

7. Integration with Other Subjects

   - Writing: Add sentences to observation log: “Day 1: I planted the seed. It is wet.”
   - Art: Create a fraction pizza collage from colored paper.

8. Differentiation and Personalization

   - For PDA: Let child decide which snack or craft to use.
   - For ADHD: Keep the activity tactile—use playdough or LEGO to make fractions.

- Enrichment: Introduce equivalent fractions (2/4 = 1/2) using visual pieces.
- Support: Use larger visual cues, fewer fractions, or guided hand over hand for dividing.

9. Real-Life Applications and Field Activities

    - Cook: Half recipes (double or half a pancake recipe).
    - Garden: Plant a few seeds and observe differences—tie to responsibility (watering schedule).

10. Resources for Further Learning

    - Book: “The Tiny Seed” by Eric Carle (plant life cycle)
    - Website: BBC Bitesize fractions games
    - App: Tiggly or Bedtime Math activities for fractions

Day 3 — Patterns & Sequences (math) + Simple Machines (science)

1. Lesson Title

    - Patterns to Pulleys: Finding Sequences + Building a Lever

2. Learning Objectives

    - Math: Within a 15-minute activity, student will identify and create at least three number patterns (e.g., +2, ×2, ABAB) and explain the rule.
    - Science: By the end of a 20-minute hands-on build, the student will build a simple lever and demonstrate how changing the fulcrum position changes effort needed.

3. Materials Needed

    - Counters, beads, colored blocks, paper strips for pattern cards
    - Ruler, pencil, small seesaw board (ruler or a small wooden plank), a block or eraser as fulcrum, small toys as weights
    - Optional: string and spool for a simple pulley demonstration (parent supervise)

4. Lesson Introduction

    - Hook: “Make a secret code pattern for me—beads or blocks! Can I figure it out?” For machines: “Want to make it easier to lift your toy? Let’s build a lever.”

5. Instructional Procedures

    - Exploration:
    - Math: Child makes patterns with blocks and asks parent to guess the rule; then child makes number patterns on paper.
    - Science: Build lever (plank over fulcrum), test lifting toys at different fulcrum positions; measure effort qualitatively (easy/hard).
    - Explanation:
    - Discuss pattern rules and how you can continue them.
    - Explain lever parts: load, fulcrum, effort — simple language and visual labeling.
    - Application:
    - Math: Create a “mystery pattern” card game to swap with parent/sibling.

- Science: Try lifting same toy with fulcrum under center vs closer to toy. Draw or take photos to record results.
- Reflection:
- Ask which pattern was trickiest and why. For lever: “Which fulcrum position felt easiest? Why do you think that happened?”

6. Assessment and Evaluation

   - Informal: Child explains pattern rules and demonstrates lever effects. Tweak complexity if needed.
   - Adjustment: If patterns are too easy, extend to missing-term problems; if too hard, limit to AB patterns.

7. Integration with Other Subjects

   - Art: Make pattern bracelets.
   - Literacy: Write instructions for building the lever (sequencing practice: first, next, last).

8. Differentiation and Personalization

   - For PDA: Offer choices of materials (beads vs blocks) and the option to lead the teaching.
   - For ADHD: Make physical movements part of patterns (clap, hop, clap).
   - Enrichment: Introduce compound machines or investigate real-life levers (see-saw).
   - Support: Use visual cue cards and model one pattern at a time.

9. Real-Life Applications and Field Activities

   - Playground: Find seesaw and discuss leverage.
   - DIY: Use lever to move a heavy box safely.

10. Resources for Further Learning

    - Book: “Simple Machines” by D. Adler (series)
    - Video: Short clip showing levers and pulleys (Mystery Science or National Geographic Kids)

Day 4 — Money (math) + Habitats & Food Chains (science)

1. Lesson Title

   - Money Smart + Home for Animals

2. Learning Objectives

   - Math: In a 20-minute role-play shop activity, the student will count out coins to pay for 3 items and calculate change for amounts up to $1 (or equivalent currency) using coins.
   - Science: By the end of a 20-minute exploration, the student will describe at least two different animal habitats and place 4 animals into correct habitats, explaining one reason for each placement.

3. Materials Needed

   - Play coins or real coins (parent choice), toy cash register or container, price tags
   - Animal figures or printed pictures, shoeboxes or shoe size boxes for diorama habitats,

markers, glue
- Paper bank or wallet, shopping list cards

4. Lesson Introduction

   - Hook: “You’re the shopkeeper today — what will you sell? Would you like to make a shop for toys or snacks?” For science: “Let’s make homes for animals—where should the polar bear live?”

5. Instructional Procedures

   - Exploration:
   - Math: Set up 3 items with price tags. Child plays shopkeeper or customer and uses coins to pay/make change.
   - Science: Use animal figures to sort into boxes labeled forest, ocean, desert, arctic. Discuss adaptations (fur, fins).
   - Explanation:
   - Explain coin values (1c, 5c, 10c, 25c—adjust for local currency). Demonstrate making change by counting up.
   - Describe habitat features and why animals belong there.
   - Application:
   - Math: Create a simple budget: child has $1 to spend; decide which items to buy.
   - Science: Build one habitat box with drawings or glued materials and add animals.
   - Reflection:
   - Ask child which item they bought and why, or which habitat was easiest/hardest to make and why.

6. Assessment and Evaluation

   - Informal: Watch counting strategies and explanation of habitat choices. Use quick “teach back” — child shows how to make change.
   - Adjustment: Reduce coin types or use larger denominations if counting is overwhelming. Offer one-to-one coaching for change.

7. Integration with Other Subjects

   - Writing: Create price tags with numbers and words.
   - Geography/Reading: Read a short nonfiction book about an animal and its habitat.

8. Differentiation and Personalization

   - For PDA: Let child design the shop or pick favorite animals/habitats.
   - For ADHD: Keep items tactile and include running errands (moving between shop and “home”).
   - Enrichment: Introduce larger budgets or simple percentages for discounts.
   - Support: Use coin charts and pairing (1 quarter = 25 pennies).

9. Real-Life Applications and Field Activities

   - Visit a small local shop (if OK) and practice paying.
   - Take a nature walk to spot signs of habitats (tree types, ponds) and relate animals that might live there.

10. Resources for Further Learning
    - Book: “One Cent, Two Cents, Old Cent, New Cent” by L. Neuschwander (money concepts)
    - Website: National Geographic Kids (animal habitat pages)
    - App: PiggyBot or simple money counting games

Day 5 — Telling Time & Light and Shadow (science)

1. Lesson Title
    - What Time Is It? + Shadows and Light Play
2. Learning Objectives
    - Math: By the end of 20 minutes, the student will read analog time to the nearest 5 minutes on a practice clock and answer one elapsed time question (e.g., “If class started at 10:10 and lasted 25 minutes, what time is it now?”).
    - Science: Within a 20-minute activity, the student will create shadow puppets and show how moving a light source changes the shadow’s size and direction, explaining the change.
3. Materials Needed
    - Small analog clock/tutor clock (movable hands) or printable clock
    - Paper, scissors, craft sticks, flashlight (or lamp), darkened room or shaded area
    - Timer, activity sheet for elapsed time (simple)
4. Lesson Introduction
    - Hook: “What time is snack? Let’s set the clock and practice. Also—want to make magic shadow animals?” Choose which to do first.
5. Instructional Procedures
    - Exploration:
    - Math: Let child move clock hands to show times you ask for and set up “schedule cards” for daily tasks.
    - Science: Make simple shadow puppet shapes and shine the flashlight from different distances and angles.
    - Explanation:
    - Explain hour/minute hands, five-minute intervals, and how to count by 5s for minutes.
    - Explain that shadows form when light is blocked and that moving the light or object changes size and direction.
    - Application:
    - Math: Ask elapsed time questions related to a mini schedule (e.g., 15 minutes of play, when is clean-up).
    - Science: Create a short shadow puppet story and record (video) OR draw shadows and label direction (north/east etc. optional).
    - Reflection:
    - Ask “How did you make the shadow bigger?” or “How do you know it’s quarter past two on our clock?”
6. Assessment and Evaluation

- Informal: Child demonstrates reading times and explains elapsed time. For science, child explains how moving the light affected the shadow.
- Adjustment: If analog clock is confusing, use fewer time intervals or start with o'clock and half hour. For science, let child explore more with different objects.

7. Integration with Other Subjects

   - Drama: Use shadow puppets to retell a favorite story.
   - Literacy: Write a simple schedule for the day and have the child copy times.

8. Differentiation and Personalization

   - For PDA: Allow child to be the "teacher" and show you how to read the clock.
   - For ADHD: Combine time teaching with movement (walk around the house to each hour).
   - Enrichment: Introduce 24-hour time or time zones in a simple way.
   - Support: Use digital/analog comparison and a clock with labeled increments.

9. Real-Life Applications and Field Activities

   - Create a morning/evening routine chart with times.
   - Go outside midday and mark shadow positions on pavement to see sun movement (replace with sundial idea if interested).

10. Resources for Further Learning

    - Book: "Telling Time with Big Mama Cat" (age-appropriate clock book)
    - Website: Interactive clock game (many free sites) and National Geographic Kids for shadow experiments
    - Video: Short experiments about light and shadow for kids

Additional supports and tips specific to PDA & ADHD

- Choice and control: Always offer 2–3 choices for activities, materials, location, or who will do the activity (child leads vs parent models). Framing: "Pick one you'd like to try" instead of "You must do this."
- Low-demand language: Use gentle, collaborative phrasing — "Shall we explore?" "Could you show me how you'd do it?" Avoid power struggles and large lists of steps at once.
- Visual schedules and timers: Use a simple chart with pictures for the day, and a visible timer for each session.
- Sensory breaks: Build in movement breaks: 2 minutes of jumping jacks, a walk, or a sensory bin between segments.
- Positive reinforcement: Focus on praise for effort and choice, not compliance. Offer small immediate rewards that the child values.
- Environment: Provide a quiet, low-clutter workspace and a more active area for messy or hands-on tasks. Keep materials accessible in labeled bins.
- Multi-age/family options: For siblings, assign similar tasks at different levels (e.g., older child measures in meters, younger in cm). Let siblings be "experts" for certain topics to reduce demand on the 8-yr-old.

Assessment and Progress Tracking (weekly)

- Keep a simple checklist or short video log: date, activity, what went well, what to try next.
- Use child's explanations, drawings, or short recordings as evidence of learning rather than formal

tests.
- If progress is slow or the child is resistant, scale down demands, increase autonomy (let them choose when to do activities), or spread activities over more days.

Resources for Further Learning (general)

- Mystery Science (free lessons and videos)
- Khan Academy Kids (math readiness and practice)
- National Geographic Kids (science topics)
- Short YouTube channels: SciShow Kids, Crash Course Kids (short, kid-friendly)
- Books: “How Things Work” for kids, simple nonfiction plant and animal books (Eric Carle, DK Eyewitness for kids simplified)

How to adapt this plan quickly

- If child refuses: Switch to a purely play session related to the topic (e.g., play grocery store for money, cook for measurement).
- If child hyperfocuses productively: Allow extended time and make that the main lesson.
- If attention is short: Break each mini-lesson into 3–4 micro tasks (2–5 minutes each) and intersperse movement.

If you’d like, I can:

- Turn any one day into a printable worksheet pack and choice board.
- Reduce the week to a 3-day plan or expand into two weeks with more projects.
- Suggest specific sensory break activities tailored to your child’s preferences.