

Substitute Guide: Sorting Matter by Its Properties

Grade: 3 **Subject:** Science **Time:** ~45 min core + ~15 min extension Science

Learning goal (plain language)

Students learn that everything is made of **matter**, and that we can describe and **sort** matter by its **properties** — things we can see, feel, or measure: **mass** (weigh it), **temperature** (thermometer), **magnetic?** (a magnet pulls it), **sink or float** (drop it in water), and **state** (solid, liquid, or gas). They use a chart of five objects to sort them and to explain their thinking from the evidence. **You do not need a science background to run this.** Everything students need is printed in their packet. There are **no lab materials and no hazards** — it is all on paper.

Standards alignment

Framework: 19 TAC Chapter 112 (Grade 3 Science, 2021 TEKS). Focus: classifying matter by measurable and observable physical properties.

- **Provisional SE (classify by properties):** classify matter by observable physical properties such as mass, magnetism, and whether it sinks or floats. verification_status: pending
- **Provisional SE (states of matter):** describe and compare the states of matter — solid, liquid, and gas. verification_status: pending

Provisional — the specific section number and SE codes are pending educator verification against the current official TAC source.

Standards are paraphrased here, not quoted, and this packet does not claim formal alignment to the TEKS. Please confirm the section and codes against your official source.

Setup Before class (5 min)

- Count and hand out one **student packet** per student.
- Confirm each student has a **pencil**. No calculators, computers, or lab items are needed.
- Write the date on the board and remind students to fill in the name line.
- Keep the **answer key** with you — it is a separate file and is **not** in the student packet.

Materials What's needed

- Printed student packet (about 4 pages) per student.
- Pencil per student.
- This guide and the separate answer key (teacher only).
- No technology, no calculator, no lab equipment, no safety hazards.

Timing Suggested pacing (~45–60 min)

Segment	Time	What students do
Start — Notice & Wonder	5 min	Q1–Q2 warm-up

Segment	Time	What students do
Build — Read the science	5–10 min	Read box, word bank, Figure 1; Q3
Apply — Use the data	20 min	Table 1; Q4–Q7
Explain — CER	5–10 min	Q8 claim/evidence/reasoning
Close — ACE	5 min	Articulate / Connect / Extend
Continue — early finishers optional	~15 min	Pick a property, list 3 objects that have it

Script Read aloud to start

"Today's work is a paper science activity called *Sorting Matter by Its Properties*. You will work by yourself with just a pencil — no computers and no supplies. First, do the two warm-up questions. Then read the short box and look at the picture chart. After that, use the table to sort the objects and answer the questions. If a question is tricky, skip it and come back. You may read the words out loud to yourself. Put your name, class, and date at the top now. You have about 45 minutes — raise your hand if you want a word read to you."

Support When students ask for help

- **You may read any part aloud** to a student or the whole class.
- If they are stuck, point them to the **Word Bank** and **Figure 1** — the ideas they need are right there.
- Remind them the chart (Table 1) has all the clues for Q4–Q7. Show them how to read across one row.
- Do **not** give answers; prompt with "What does the table show for that object?" or "Does a magnet pull it — what does the column say?"
- It is fine if a student cannot finish the optional early-finisher task.

Access Accommodations & language support

- **Read-aloud** of any passage or question is allowed for all students.
- Point students to the **sentence starters** and the **Word Bank** (kid-friendly definitions provided).
- Extended time is fine; the core can stop after Q8 if time runs short.
- Students may answer in short phrases or point to a table cell if writing full sentences is a barrier, as long as the idea is clear.
- Drawing is welcome — the early-finisher task invites small pictures.
- The packet is grayscale-safe — it prints and reads clearly in black and white.

Tools Allowed & not allowed

Allowed: pencil, the printed packet, quiet self-read-aloud. **Not needed / not allowed:** calculator (no math required), phones, computers, lab materials.

Collect at the end: Collect every packet, finished or not, with names on them. Stack them for the teacher. Note on a sticky how far most students got and any questions that caused confusion.

Answer key: The **answer key is a separate file** (answerkey.html) and is for the teacher only. Please do not hand it to students.

Teacher follow-up (for the returning teacher)

Watch for two common ideas: that "all metals are magnetic" (the copper penny is not pulled, only the steel clip is) and that "big things sink, small things float" (the tiny clip sinks; the small plastic cap floats). A quick next-day sort of real classroom objects into "magnetic / not" and "sink / float" would reinforce this well. The CER (Q8) responses show who can use a table column as evidence.

