

**Weekly Lessons/Overview and Goals:** Students will establish routines including: science notebooks, class expectations and ways we collaborate with others. Students will begin exploring properties of matter and science safety

**TEKS:**

**For Unit 1:**

*Properties of Matter*

*4.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:*

*4.5A Measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float.*

*4.5B Compare and contrast a variety of mixtures including solutions.*

*Scientific Investigation and Reasoning*

*4.1A Demonstrate safe practices and the use of safety equipment*

**Unit 1 Vocabulary**

4.1A

*safety*

*safe practices*

*safety procedures*

*safety equipment*

*goggles*

*gloves*

4.5A

*physical properties*

matter  
size  
mass  
states of matter  
volume  
magnetism  
solid  
liquid  
gas  
temperature  
sink  
float  
buoyancy

4.SB  
mixture  
solution

**Generalizations:**

*Matter has measurable physical properties that determine how it's classified, changed, and used.*

*Materials can be combined and separated for different purposes*

**Essential Questions:**

*What are the physical properties of matter and how can they be measured?*

*How can we compare and contrast matter?*

*What are the similarities and differences among mixtures and how can they be separated?*

**Thursday:**

- set up notebooks - expectations
- [Safety Contracts](#)
- **Mixed-Pair Share Structure:** Direct all students to push in their chairs and stand up. When the music begins, encourage students to “mix” around the room. When you call out the word “high five”, students will high five the closest person to them and partner up. Ask, “How would you define science? Or “What is science?”. Allow for think time. Then determine which partner will begin 1st. Allow 30 seconds for each partner to share. If they have time left, the other person can ask questions. When the person is done sharing, give a gambit stem. Then repeat for the other partner.
- **Doing Science Probe** - Present the probe on the projector. Allow time for students to think about the probe quietly. Then allow students to get up and walk over to the sign in the room that matches the name of the student they think is correct. Once students have made their selection, give them one minute to talk with their group about why they think they are correct. Have each group select a spokesperson. This person will share their reasoning on behalf of the group. Once all groups have spoken, allow students to change their minds. Once students have made their final selection, share the answer and discuss.

**Friday:**

- Community meeting
- properties of matter exploration - students will each receive a mystery bag with 7 items. Using the **Think-Write-Round Robin** structure, students will have the opportunity to reach into the bag and try and identify the items without looking into the bag. (only using touch) Students will have think time to write down in their science notebooks a list of the items they think are in the bag. Students will then each have an opportunity (30 seconds) to share their list. If students have extra time, other students may ask questions. After each student responds, provide a gambit, for students to say as an appreciation of the student speaker. Students will then be able to dump out the items and check their answers. We will talk about characteristics of each item. Begin making connections to properties of matter. **Items in bag: penny, acrylic bug, shell, counting bear, magnet, bouncy ball, eraser top**
- skits on science safety: goggles, gloves, thermometers, beaker - wafting, hand lenses. Each group will be assigned a science tool. Groups will collaborate on a skit for the class demonstrating both the correct and incorrect use of the item.

**Differentiation:** A variety of activities (application, concrete, and kinesthetic) will be incorporated into both days to engage all learners. Kagan structures will be introduced the first week.