

Instructions for Center Pocket 1:

1. Read the book *“How Much is a Million?”* which is located in this pocket.
2. After reading the book, answer the questions on your worksheet.

Instructions for Center Pocket 2:

1. Find the containers that have 10 beads, 100 beads and 1,000. Line the containers up side by side.
2. The 100 bead container has 10 times more beads than the 10 bead container.
3. The 1,000 bead container has 10 times more beads than the 100 bead container and 100 times more beads than the 10 bead container.
4. After looking at the bead containers, answer the questions on your worksheet.

Instructions for Center Pocket 3:

1. Use one sheet of the paper and the rulers to complete section 3 on your worksheet. Attach sheet to worksheet when you finish.

Instructions for Center Pocket 4:

1. Remove the Becker Bottle that is inside the bucket. Use this container to answer the questions for section 4 on your worksheet.

Instructions for Center Pocket 5:

1. Remove the plastic container that has 10 beads lined up.
2. Using the included ruler, measure the length of the 10 beads in both inches and centimeters.
3. Using these measurements, complete the statements on your worksheet for section 5.

Instructions for Center Pocket 6:

- 1. Using the tape measure included in this pocket, measure the length of your classroom. If your measuring tape is not long enough, figure out what you would need to do to measure the length of the room.**
- 2. When you have measured the room, complete section 6 on your worksheet.**

Instructions for Center Pocket 7:

- 1. Complete 7 A and B on your worksheet.**

- 2. Read the following:**

All things are made of **Matter**. Matter has three forms. It can be a **solid, liquid, or a gas**. The smallest particle of matter is called an **atom**. One of the largest of the atoms is called cesium.

- 3. Look at the plastic cases that are labeled solid, liquid, and gas. The beads in these cases represent what the atoms would look like in a solid, liquid, or gas. But these beads are much larger than an atom. So how large are atoms?**

- 4. Read the following:**

Matter has **properties**. A property describes how matter looks or behaves. One way to describe matter is to measure how long, high, or wide it is. You can use a ruler, a meter stick, or something larger or smaller to measure this property. A **centimeter** is a unit used to measure length, width, or height. A **nanometer** is another unit used to measure length, width, or height. It would take 10,000,000 nanometers to equal the length of one centimeter. The cesium atom is .7 nanometers wide.

- 5. Complete 7 C, D, E, and F on your worksheet. For the answer to D you will need to refer back to 5A on your worksheet for 10 beads and divide by 10 to get the length of one bead.**

Instructions for Center Pocket 8:

- 1. Using one of the tri-folds in this pocket, write and/or draw things that you would need the numbers million, billion, and trillion to describe.**
- 2. When finished, attach to worksheet and turn in.**