

## Units & Systems: Design Challenge

### Invent a System of Measurement!

As a test to see if you understand what makes a system of measurement work, your team is now going to work on a challenging yet creative task. You are going to invent a brand new system of measurement!

*Remember earlier when you read this?*

**Yesinia:** Hey, if a king can name a **length unit** after his arm, so can we. I hereby declare 1 “schnoz” to equal the **length** of Markus’ nose.

Now we are going to do what Yesinia joked about (but you do not have to use the schnoz as your base **unit**).

**Step 1:** Select one property from the list that your invented system will measure (your teacher may add more choices).

- length or distance
- volume
- capacity
- mass

**Step 2:** Create the base **unit** for your system and compare it to a familiar item. For example, Yesinia decided that the schnoz was a base **unit** and was equal to the **length** of Markus’ nose.

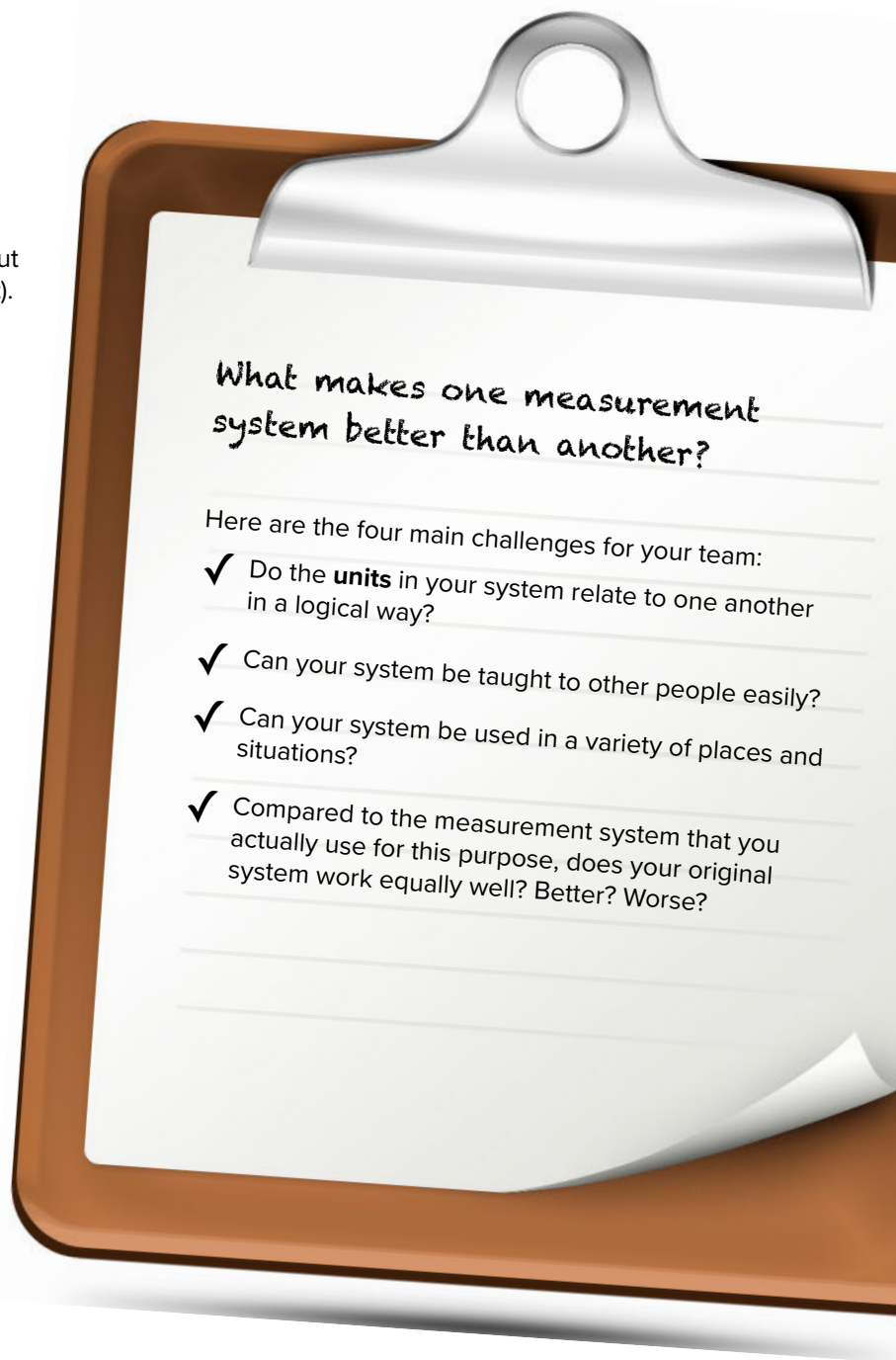
**Step 3:** Once you have your base **unit**, build off of it and make larger and smaller **units**. For example, with dry measures (the blueberry farmer’s new favorite system), 2 pints equals 1 quart, 8 quarts equals 1 peck, etc. (see previous page). And Yesinia might decide that a “schnozette” is half the **length** of a schnoz. You get the idea.

**Step 4:** Design a textbook page or a small poster that teaches your system to other people.

**Step 5:** Present your system to the class.

**Step 6:** Respond to challenges others have about how sensible your system is.

**Step 7:** To the right is the list of challenges your classmates will use to evaluate your measurement system. How does your system measure up?



Workspace for planning your original measurement system

We decided to develop a new system for:

- length or distance
- volume
- capacity
- mass

Design of poster or textbook page

To help people learn our system,  
we decided to design a:

- Simple poster
- Textbook page

→ Tomorrow, your team will present your system to the class so other teams can rate it. Are you ready?