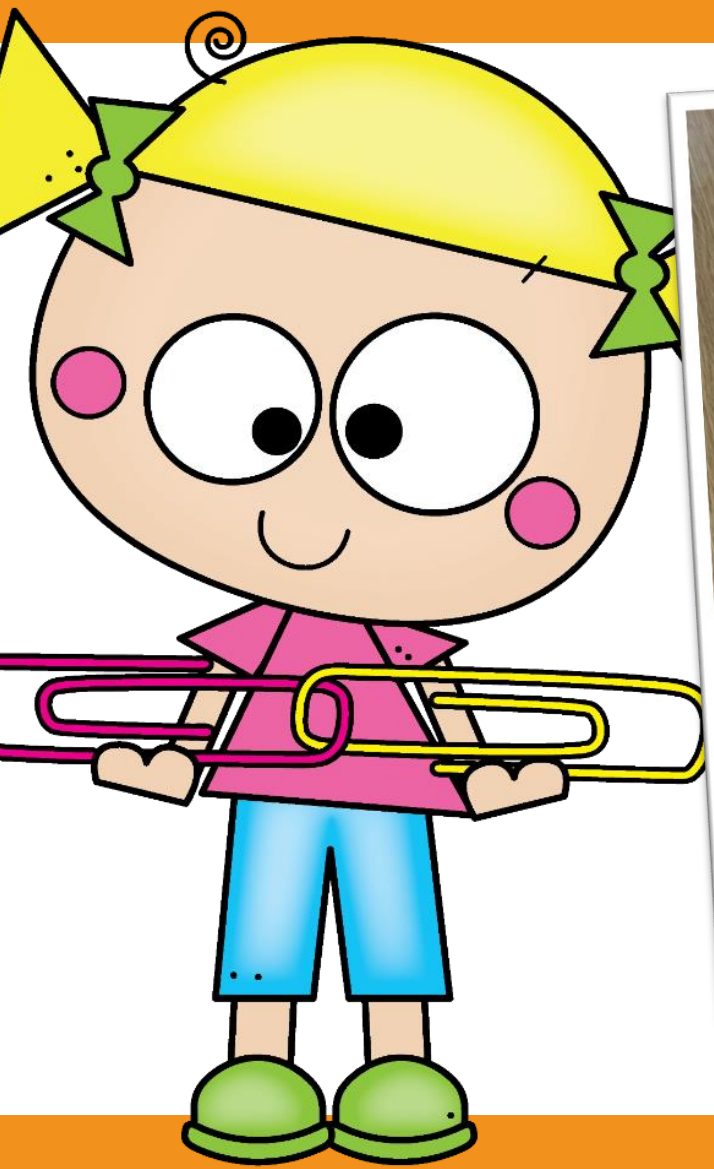
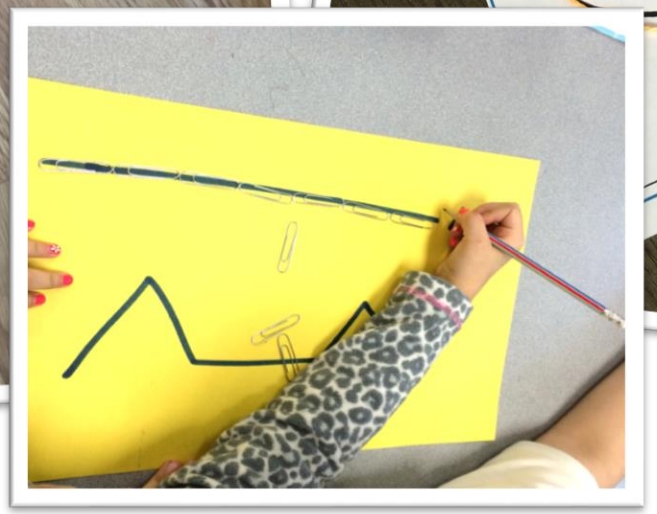
NONSTANDARD MEASUREMENT

HANDS ON LESSONS & ACTIVITIES FOR THE PRIMARY GRADES!





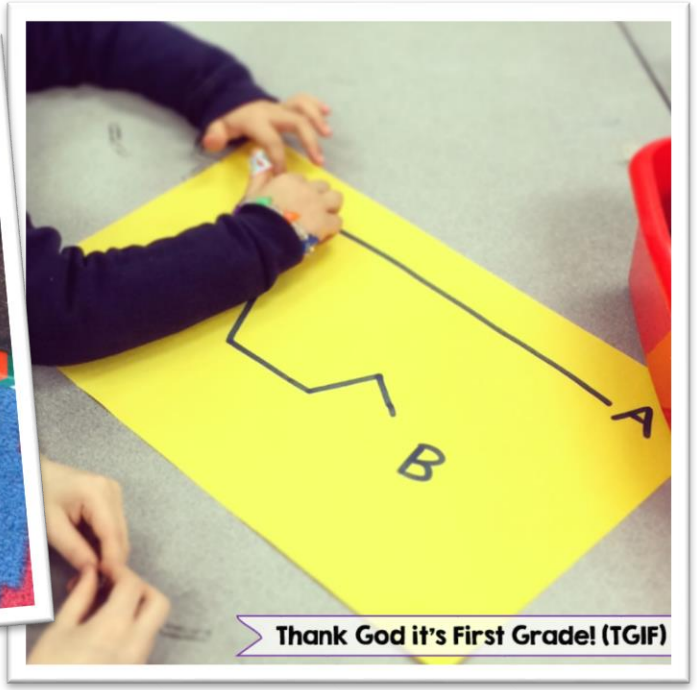
CREATED BY: SUSAN JONES (HTTP://THANKGODITSFIRSTGRADE.BLOGSPOT.COM)

NONSTANDARD MEASUREMENT:

OBJECTIVES:

Students will be able to:

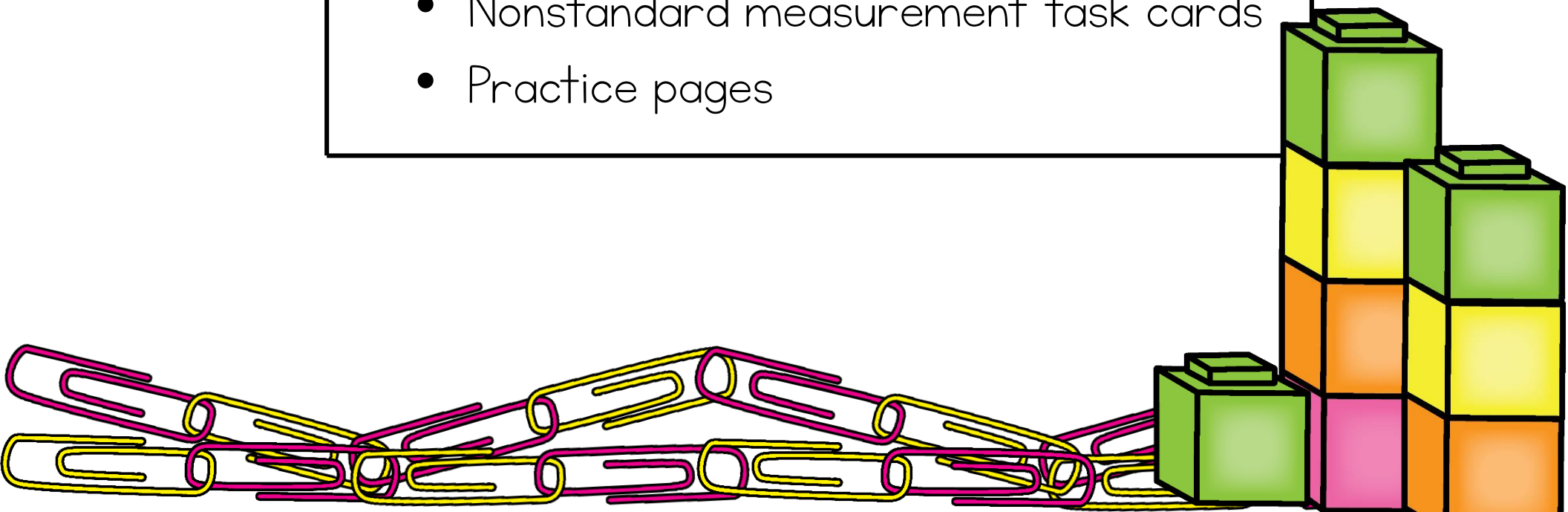
- Order 3 objects by length.
- Compare lengths of objects accurately.
- Express the length of an object as a whole number of units.
- Measure something accurately with no gaps, spaces, or overlaps.



NONSTANDARD MEASUREMENT:

LESSONS:

- Car and Ramp Races
- Stringy Shapes
- Crooked Paths
- Measure me!
- What's wrong? - explanation tasks
- Nonstandard measurement task cards
- Practice pages



LESSON I.

CAR & RAMP RACES!

Students will practice measuring with nonstandard tools during this fun lesson! I put students into small groups and give them three toy cars (they always have packs at the dollar store). I then ask my students to build a ramp using a clipboard. One at a time, students will race the cars down the ramp and mark where each lands with a post-it. Students will then measure how far each car went, record, and compare.

PREVIEW

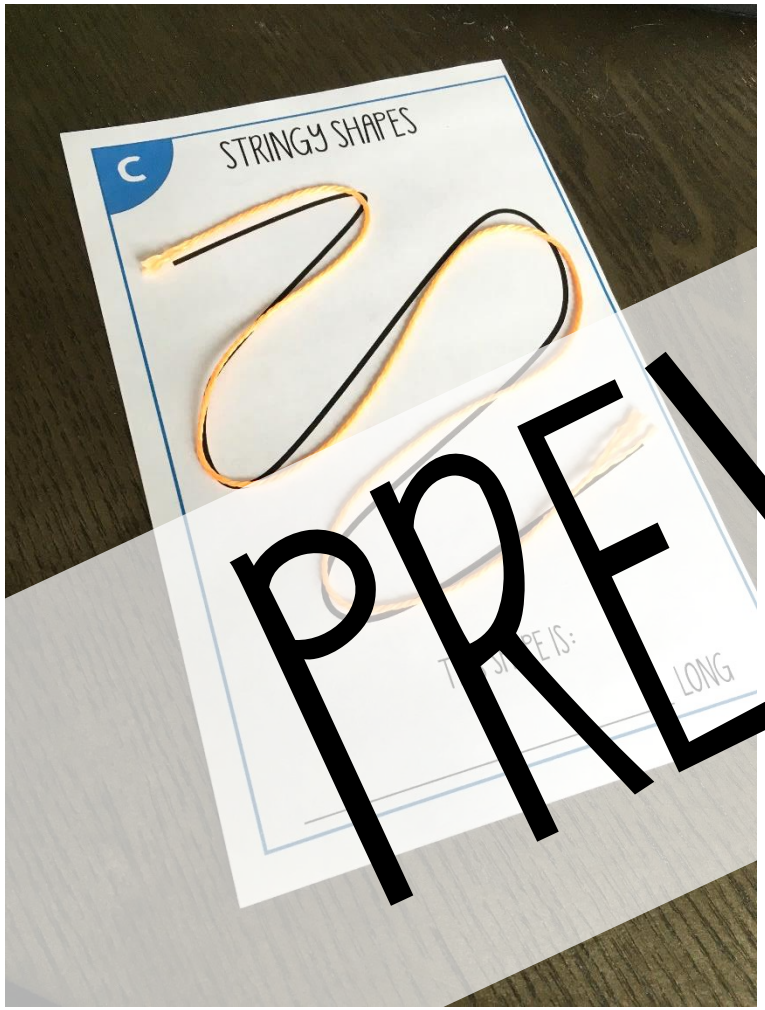
TIPS

- During my modeled lesson I am sure to point out how we will measure from the end of the clipboard to the beginning of the post it.
- I let my students build their own ramps and when they complete one round (all 3 cars) they are allowed to build a different ramp and repeat.
- I also let my students choose which type of measurement tool they would like to use as long as they are sure to use the SAME tool throughout.

LESSON 2.

STRINGY SHAPES!

Students will use yarn and centimeter cubes to measure different stringy shapes! Students will get the string cards and some yarn and work together to measure how long each card is. Then, then students will straighten out the yarn and measure the line with cubes.



PREVIEW

TIPS

- During my modeled lesson I am sure to point out how we will lay the yarn down on the lines and then cut the yarn where the line ends.
- We will sometimes estimate how long the lines will be before we lay the yarn out straight.
- After we complete this lesson once, it is great for math tubs or centers - when it moves there I let them use other tools to measure each line.

LESSON 3.

CROOKED PATHS!

Using a large piece of construction paper I create two different paths and label them A and B. One line will be straight and the other will be crooked. The end of the straight line will appear longer than the crooked line. Students will first estimate and explain which line they think is longer and why. Then, students will measure the lines with a nonstandard measurement tool and see if their estimations are correct.

PREVIEW

TIPS

- During my modeled lesson I am careful not to give away which line is longer.
- I listen to my students hypotheses about which line is longer and we record them together on the whiteboard.
- Small paperclips tend to work best with this activity due to the crooks in the paths.
- I create about 10-12 of these sheets and have students work in pairs. When they are finished measuring the first, they switch with another pair.

LESSON 4.

MEASURE ME!

While this is hardly a new idea, it is a fun and easy way to assess students' ability to measure accurately without any gaps or overlapping. My students generally use cubes as tools for this nonstandard measurement activity and work in pairs. They follow the recording sheet to measure each part of their bodies and compare.

PREVIEW

TIPS:

- During my modeled lesson, we brainstorm the best ways to measure each body part. "Should my partner stand or lay down?" Etc.
- I use the checklist to record each students' abilities and progress as I observe my students measure.

LESSON 5.

WHAT'S WRONG?

Students will take a look at each of these cards and explain what is wrong (and how they could fix it) in each picture. This lets students discuss and talk about math while explaining their thinking.

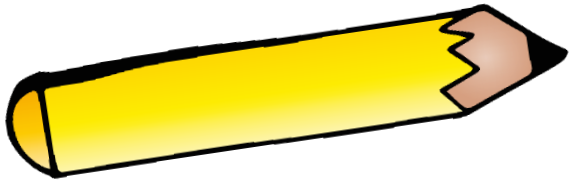
PREVIEW

TIPS:

- We use these cards a lot for "math talks" at the beginning of our math block. They get our brains warmed up!
- I have my students practice discussing a few of these before they begin to write their response.

TASK ONE

Grab the nearest pencil. Measure how long it is with cubes.

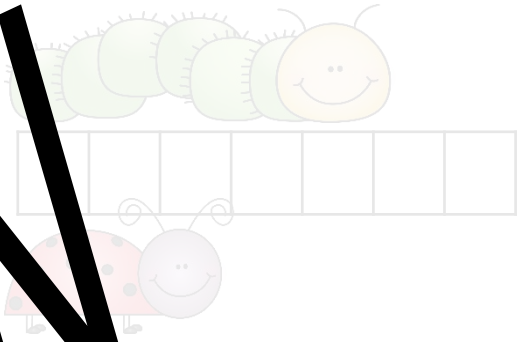


TASK TWO

Which is longer, your desk or your arm? Prove it by measuring with crayons!

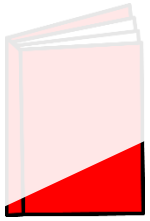
TASK THREE

How much longer is the caterpillar than the ladybug. How do you know?



TASK FOUR

Grab your favorite book. Measure it with cubes. Now measure it with crayons. Do you get the same measurement? Why?

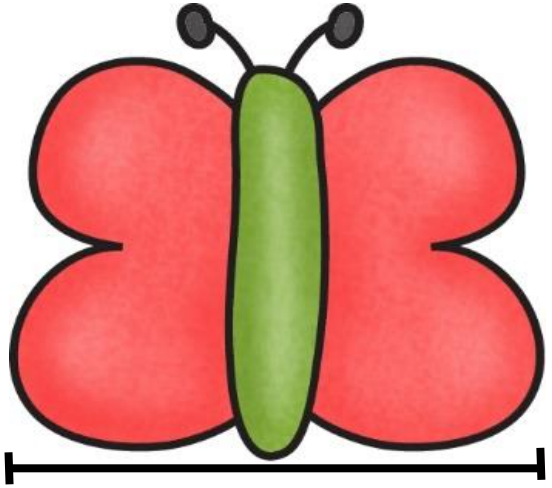


TASK FIVE

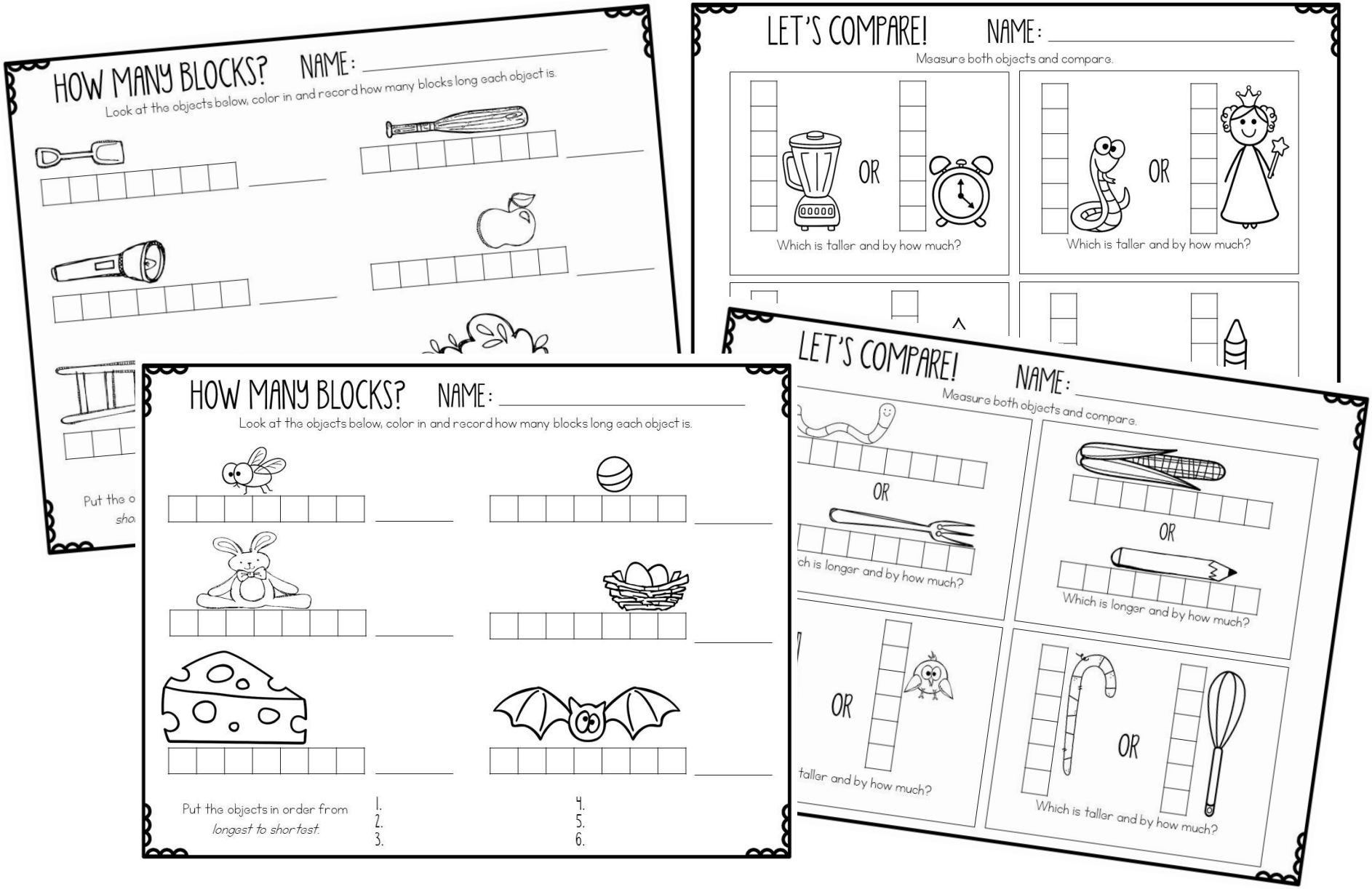
Find each of these in your classroom, measure them with paper clips and put them in order from smallest to largest.

TASK SIX

Use centimeter cubes to measure this butterfly's wingspan:



PREVIEW

PRACTICE PAGES

These are some paper and pencil pages to have students practice nonstandard measurement. These are also great for homework pages.