

Tool Detectives

Students observe and record four classroom tool comparisons.

1.1.b.iii “planning and carrying out investigations use tools to measure relative length, weight, volume, and temperature of common objects”

NAME _____

DATE _____

Teacher: this page is run aloud. The script and answers are on the guide page.

1 CIRCLE RESULTS

a	shorter	longer	same
b	lighter	same	heavier
c	more	same	less
d	same	warmer	cooler

2 TRACE TOOLS

length	ruler
weight	scale

HOW TO RUN THIS PAGE

Set up the four quick comparisons before students mark the page. Students take turns helping use each tool, then circle a word that describes what the tool shows. The tracing boxes reinforce the names of two tools used in the investigation.

Students never read directions on this sheet. Read each part's script aloud, then each prompt, giving think time before students mark.

PART 1 • CIRCLE RESULTS

SAY “We will use a ruler, a balance scale, a measuring cup, and a thermometer to compare things. Take turns helping with each tool, then listen to the question and circle the word that tells what you found.”

ROW	SAY	STUDENTS CIRCLE
a	Put a pencil and one paper clip at the zero mark on a ruler. Compared with the paper clip, is the pencil shorter, longer, or the same length? Circle shorter, longer, or same.	longer
b	Put ten paper clips on one side of a balance scale and one paper clip on the other side. Compared with one paper clip, are the ten paper clips lighter, the same weight, or heavier? Circle lighter, same, or heavier.	heavier
c	Use a measuring cup to pour three equal scoops of water into the first cup and one equal scoop into the second cup. Does the first cup have more water, the same amount, or less water than the second cup? Circle more, same, or less.	more
d	Use a thermometer to measure a cup of cold water and a cup of room-temperature water. Compared with the cold water, is the room-temperature water the same temperature, warmer, or cooler? Circle same, warmer, or cooler.	warmer

PART 2 • TRACE TOOLS

SAY “Which gray tool word matches length? Trace it in the first box. Which gray tool word matches weight? Trace it in the second box.”

- Box 1 (beside length): **ruler**
- Box 2 (beside weight): **scale**

WHAT TO ACCEPT

Circle answers are longer, heavier, more, and warmer. Accept clear tracing of ruler and scale. Prepare the water samples so the cold sample measures lower than the room-temperature sample.