

Broad Jump

Activity	Time	Description
Activity 1	40 minutes	Youth are introduced to the concept of broad jump through a video. Youth measure their jumping distance in centimeters and try different techniques to improve their broad jump distance. Youth plot the measurements on a group histogram and discuss patterns and relationships.
Activity 2	20 minutes	Youth learn about Hall of Fame baseball player Jackie Robinson who won the NCAA Championship in Long Jump. Youth reflect on the effort and persistence shown by Jackie Robinson and how they might relate to this story.



Broad Jump

Success is not an accident, success is a choice.

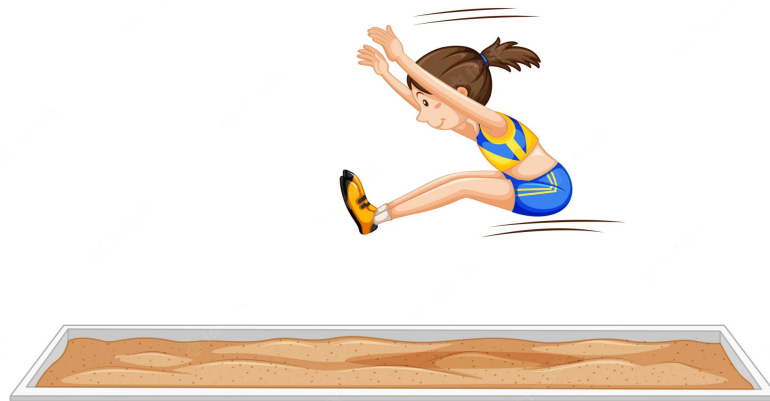
- Steph Curry



What does this quote mean to you?
What message is Steph Curry trying to send?

Activity 1: Broad Jump Measurement and Histogram

- How far do you think you can jump?
- How can broad jump **distance** be measured?
- How can broad jump be **helpful in sports**?
- What is the difference between **broad jump** and **vertical (height) jump**?



VIDEO: [Science of Baseball Broad Jump](#)



How do you define “broad jump” in your own words?

Step 1:

Toes should be at mark 0 cm of the tape measure



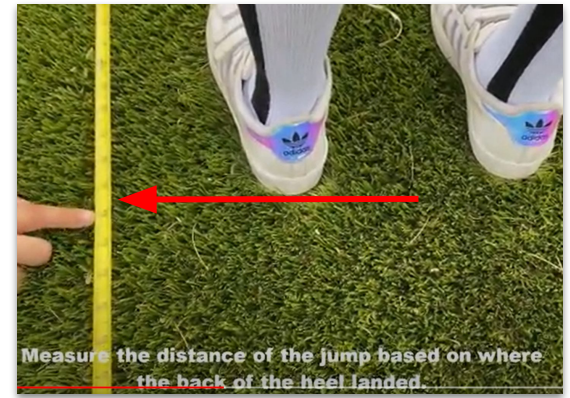
Step 2:

Jump forward and land on both feet without falling

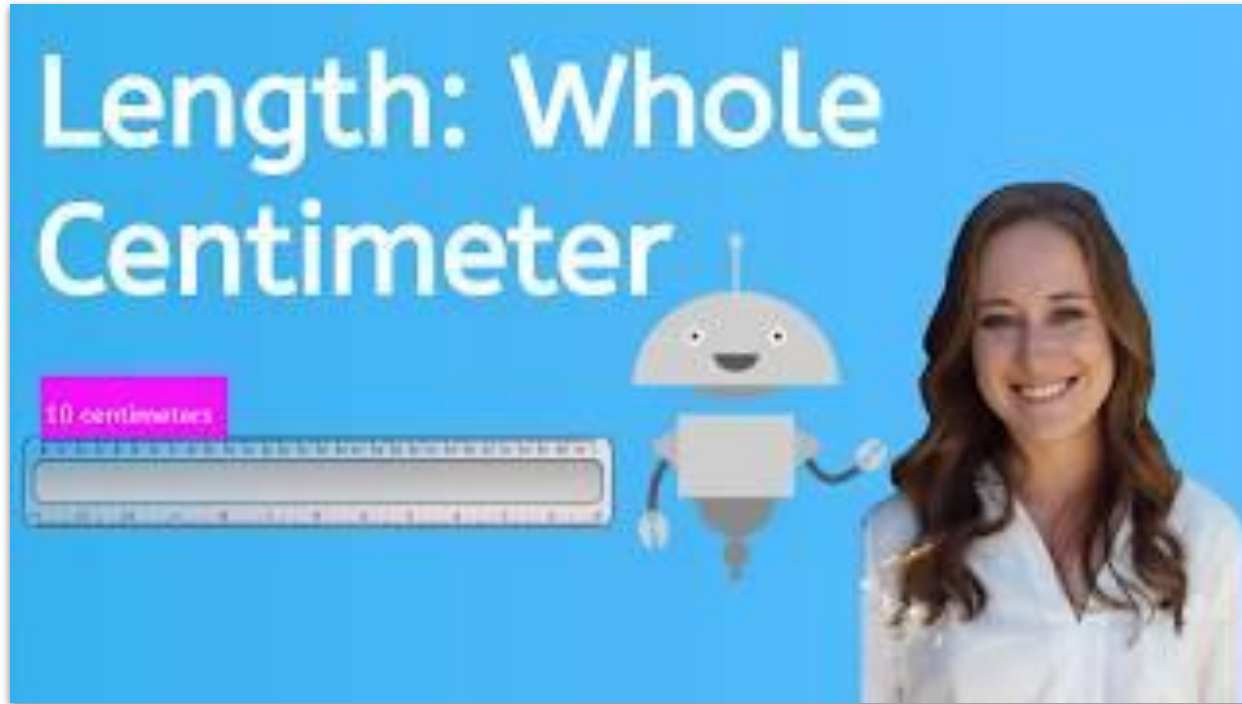


Step 3:

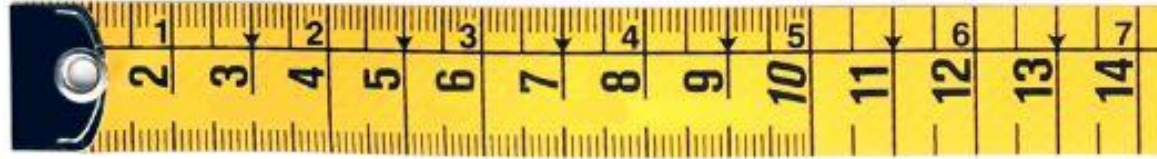
Measure the distance of the jump at back of the heel



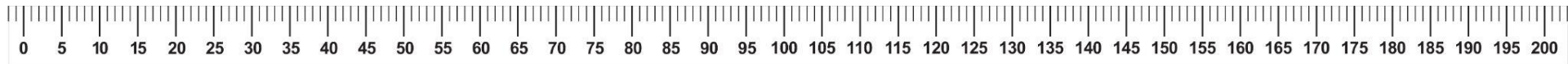
VIDEO: [How to measure centimeters](#)



We will measure our Broad Jump in Centimeters



What do you know about centimeters?
How many centimeters are in 1 meter?



100 cm = 1 meter

200 cm = 2 m

Group Roles

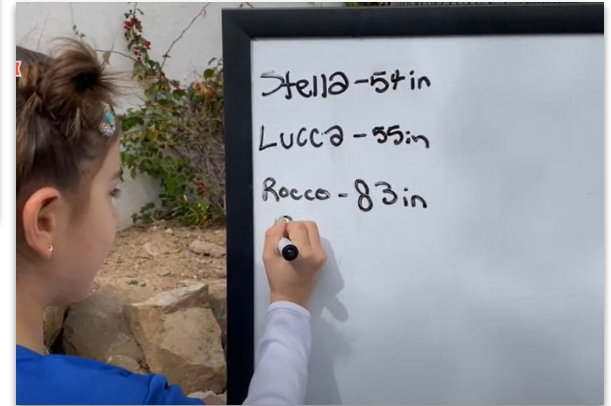
Jumper



Measurer



Data recorder



Techniques to help improve broad jump (try one at a time)

Technique #1: Swing your arms as you jump in order to propel forward



Techniques to help improve broad jump (try one at a time)

Technique #2: Bend your knees as you prepare to jump to create a “spring” motion



Techniques to help improve broad jump (try one at a time)

Technique #3: Lean forward as you are about to jump to create momentum



In your group of 3-4 youth:

1. **Round 1:** Measure each person's broad jump without instruction in centimeters.
2. **Round 2:** Apply the first technique (swing arms) and record each person's broad jump in centimeters.
3. **Round 3:** Apply the second technique (bend knees) and record each person's broad jump in centimeters.
4. **Round 4:** Apply the third technique (lean forward) and record each person's broad jump in centimeters.

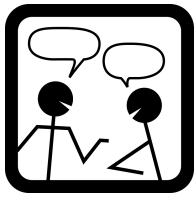
Worksheet 1 - Broad Jump Distances

For each round, record the Broad Jump Distance of each group member.

Round	Jumper's Name:	Jumper's Name:	Jumper's Name:	Jumper's Name:
Round 1 no instruction	_____ cm	_____ cm	_____ cm	_____ cm
Round 2 swinging arms	_____ cm	_____ cm	_____ cm	_____ cm
Round 3 bending knees	_____ cm	_____ cm	_____ cm	_____ cm
Round 4 leaning forward	_____ cm	_____ cm	_____ cm	_____ cm

Which technique (swinging arms, bending knees, leaning forward) was most helpful? Explain.

How did practice help increase broad jump distance?

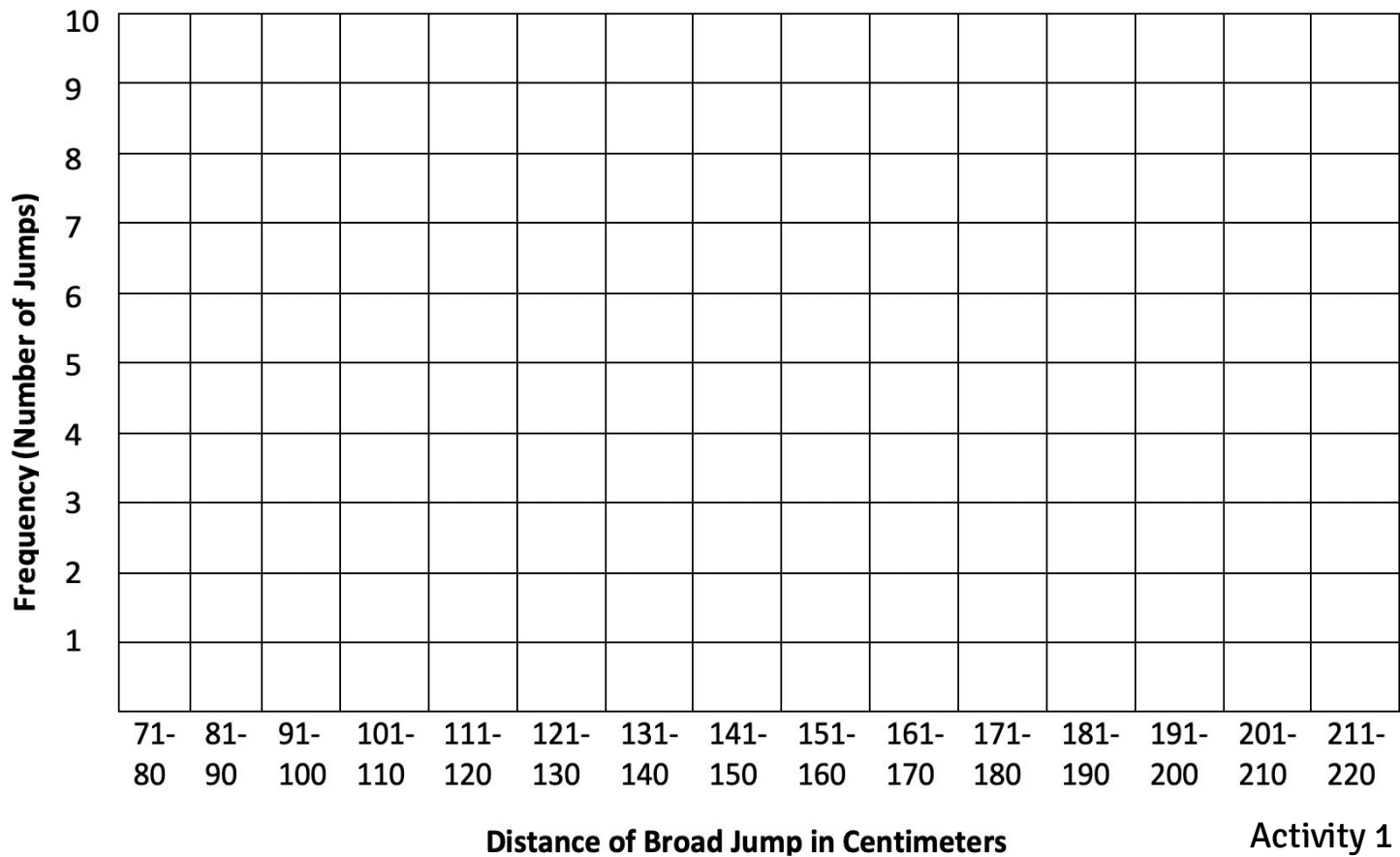


- Which technique (swinging arms, bending knees, leaning forward) was the most helpful?
- How did practice help you increase your broad jump distance?

Create a Histogram



Use different colors to illustrate the four different rounds of broad jumps for your small group

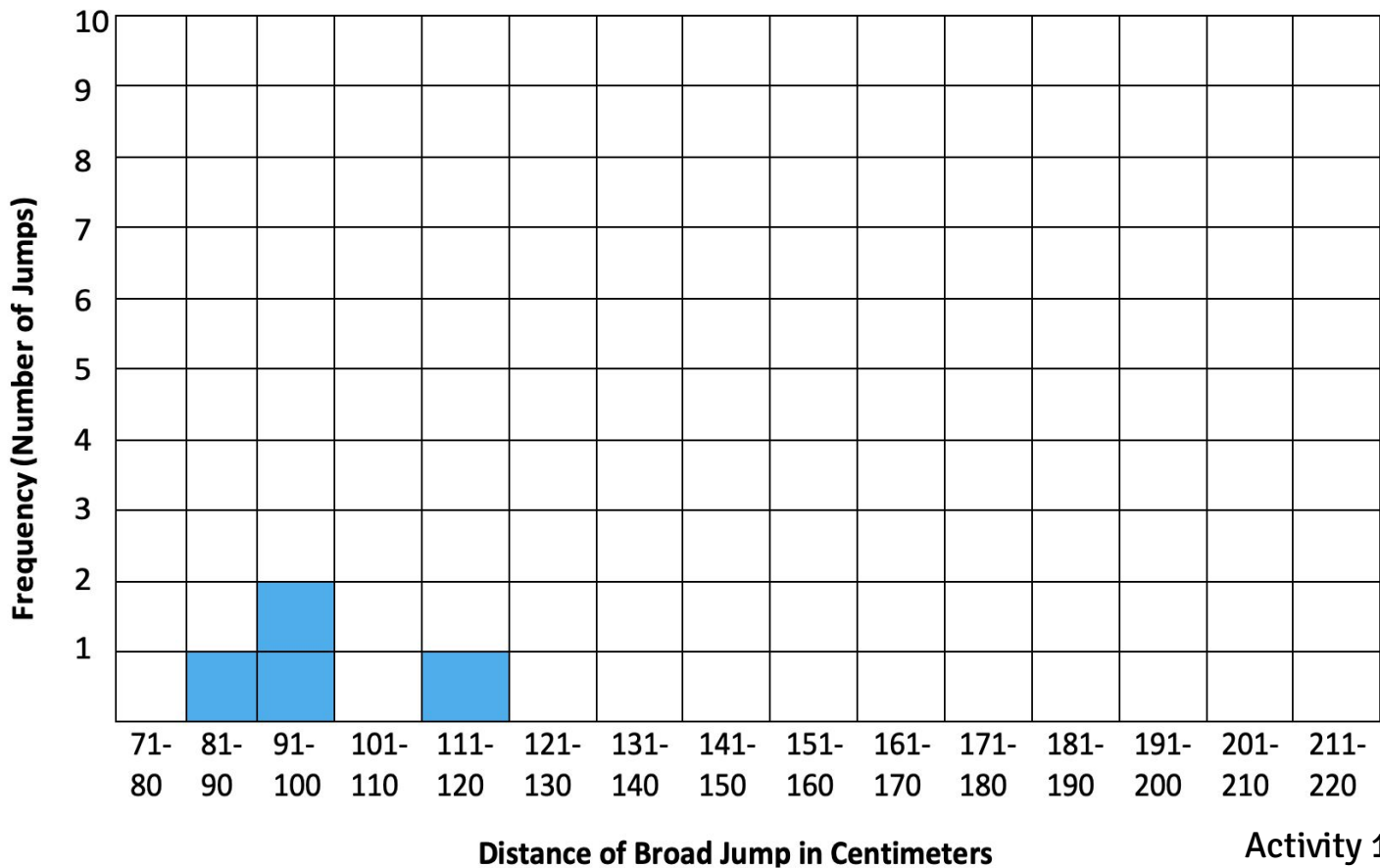
KEY: Round 1 - Round 2 - Round 3 - Round 4 -



Create a Histogram

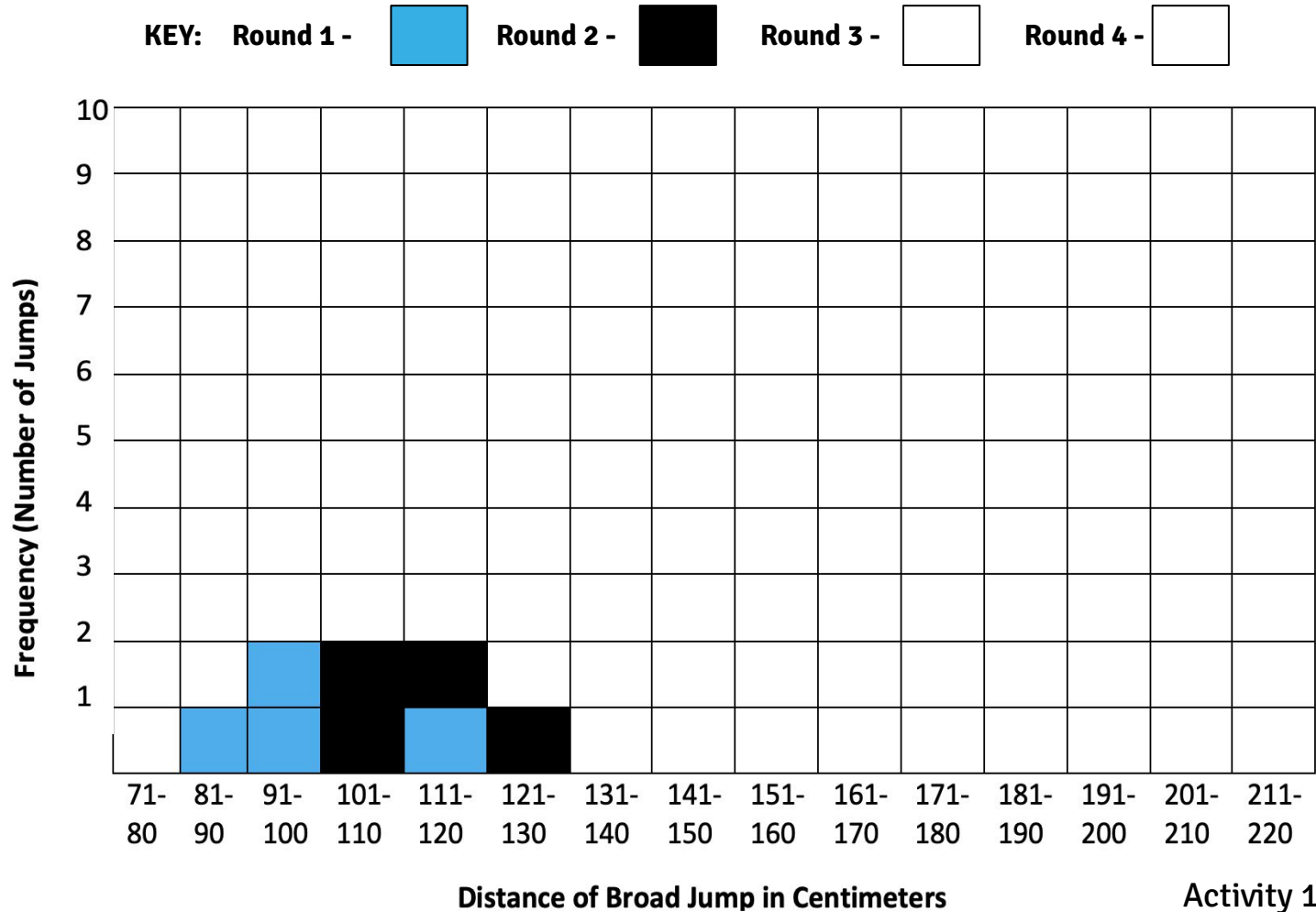
Use different colors to illustrate the four different rounds of broad jumps for your small group

KEY: Round 1 -  Round 2 -  Round 3 -  Round 4 - 



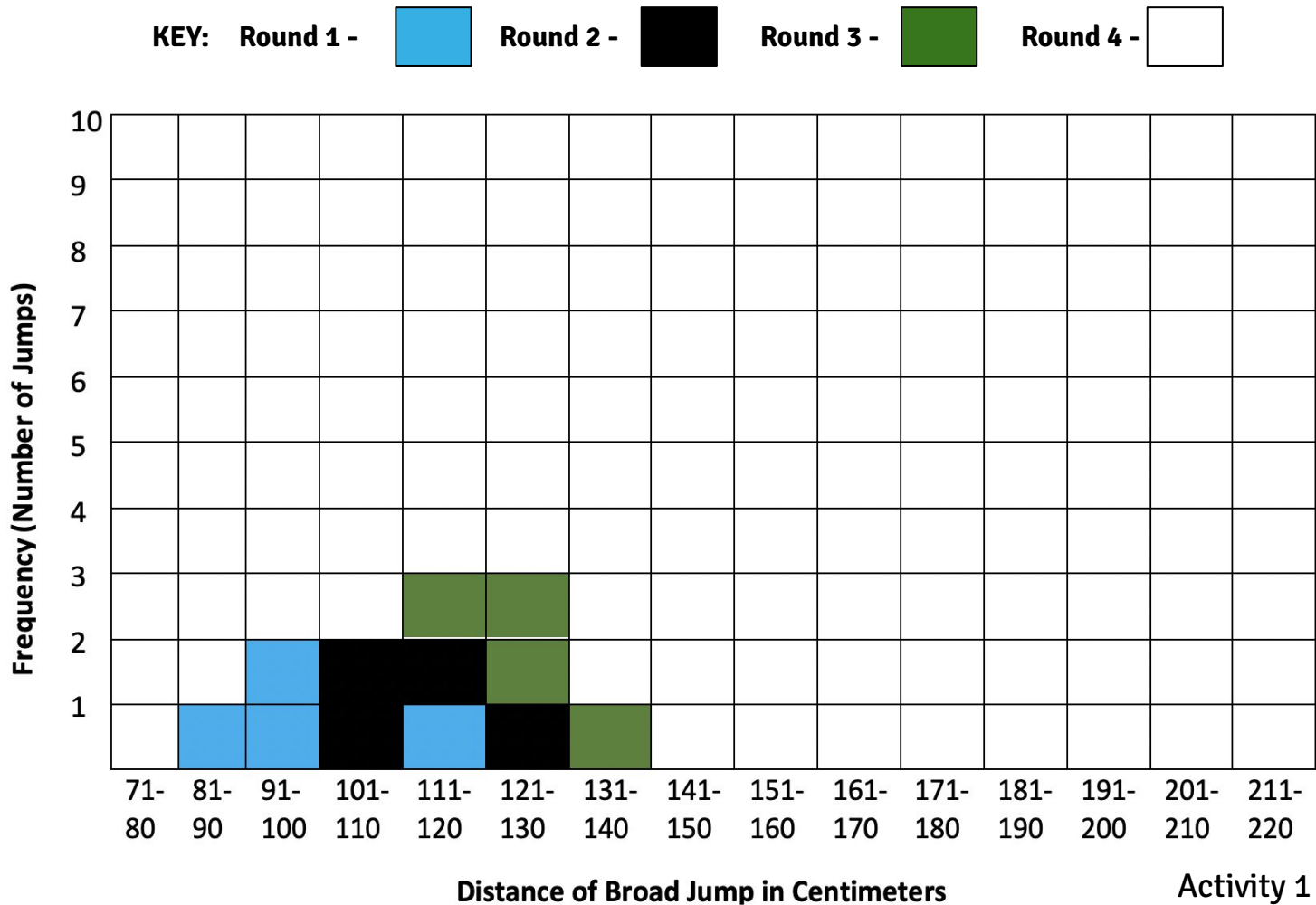
Create a Histogram

Use different colors to illustrate the four different rounds of broad jumps for your small group



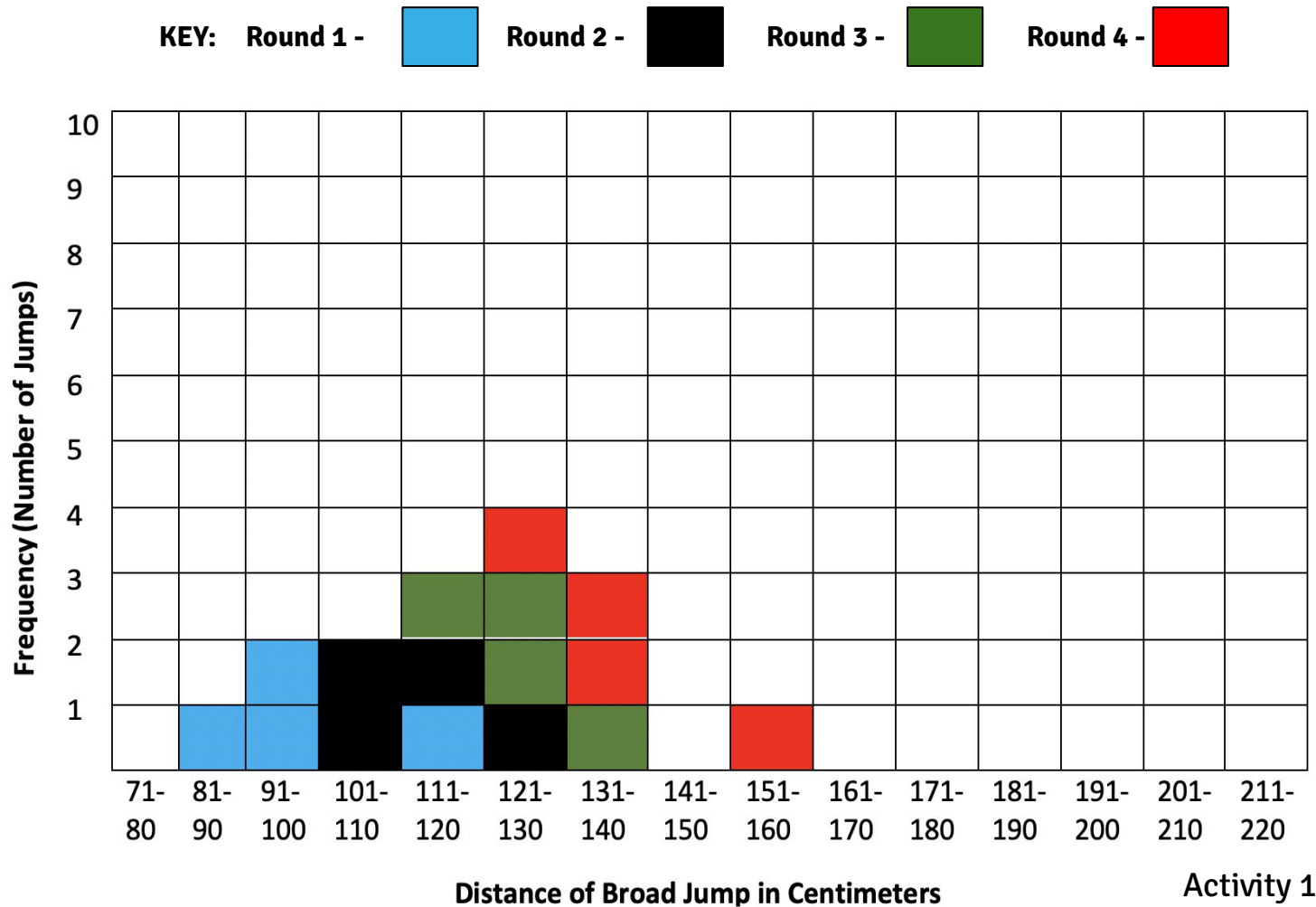
Create a Histogram

Use different colors to illustrate the four different rounds of broad jumps for your small group



Create a Histogram

Use different colors to illustrate the four different rounds of broad jumps for your small group





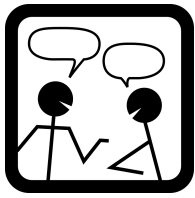
- What do you notice?
- In which round did we jump the least distance? the farthest distance?
- Why do you think that is?
- How do athletes combine technique and practice to improve their skills?

Activity 2: Improving Through Practice

Jackie Robinson Made History as UCLA's First 4-sport Athlete



Talk with a partner:
What are Jackie's accomplishments?



- What skills did Jackie Robinson need to practice to improve in each sport?
- How do you relate to Jackie Robinson's story?

