Name _____

Bouncing Ball Experiment

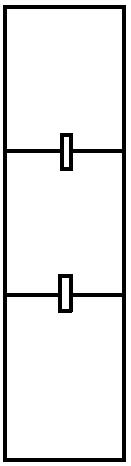
Question: Which type of ball bounces highest?

Materials for each team: 1 meter stick, 4 different kinds of balls, 1 pencil, 4 calculators, 3 sheets of paper, tape

Hypothesis:

_____

_____



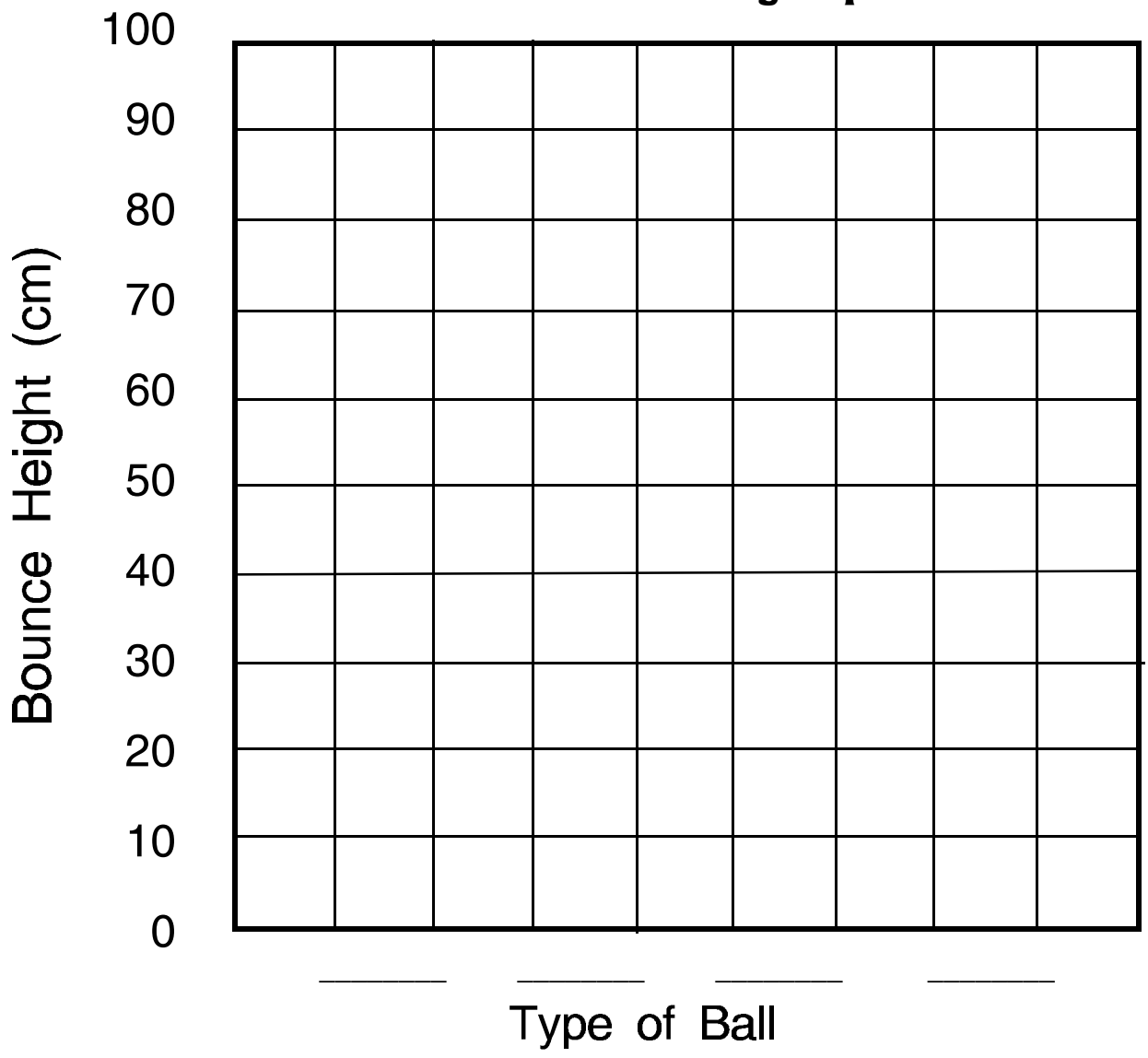
Procedure:

1. Prepare an area to test your hypothesis. Tape 3 sheets of paper together, end to end. Tape them to a wall so that the plain side is showing and the bottom is touching the ground.
2. Stand a meter stick against the wall in front of the paper, with the 0 cm end on the ground. Person #1 is going to drop their ball from the 100 cm mark, and the rest of the team will observe its bounce height. They will put their fingers on the paper at the height of the bounce, and make a mark to show the location. Everyone will record the bounce height on the data chart in the Trial 1 box.
3. Repeat these steps 2 more times from the 100 meter mark for Trials 2 and 3.
4. Repeat the experiment with Person #2 dropping their ball. Be sure to perform 3 trials, and allow time for team members to record the data. Then have Person #3 and Person #4 test their balls.
5. At the end of the experiment, everyone should use their calculators and figure the average bounce height for each ball in the experiment. *Round the average to the nearest whole number*. Check with your teammates to be sure that you all have the same results.
6. Graph your data on the bar graph by first writing in the different names of the ball types on the lines at the bottom. Then color a bar to match the average height of each ball type.
7. Using Teammates Consult, talk over the questions at the end of the activity. Write your answers in your own words.

Bounce Height Data Chart

Ball Type	Bounce Height (cm)			Averages
	Trial 1	Trial 2	Trial 3	

Results of Ball Bouncing Experiment



Conclusion: _____

_____

_____

What were your variables in this experiment?

_____

_____

What steps did you take to make sure that your results were reliable?

_____

_____

_____

What are some other questions to investigate using bouncing or rolling spheres?

_____

_____

_____

_____

Evaluate your performance on this activity. How well did you listen to directions and follow them? How well did you work with your team, sharing responsibilities? How well did you understand and apply science concepts like hypothesis, experiment, conclusion, data, and variable?

I think I deserve a grade of _____ because _____

_____

_____

_____

_____

Teacher Comments: _____

_____

_____