Name(s): _____   Date: _____

Dexterity Design Challenge

Adapt your claw to pick up three kinds of balls **without the finger touching the palm.** For each challenge, try at least **two claw designs**, then write down your predictions and results.

✓   ✗
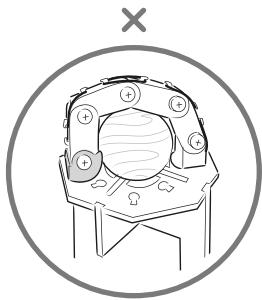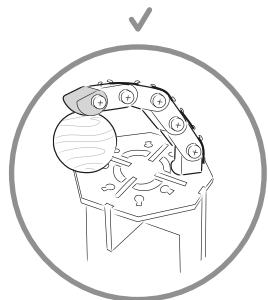
CHALLENGE 1: FOAM BALL

Remember, you can change how many rubber bands are on each joint!

	Set up your claw. What does the claw look like?	**Make a prediction.** Do you think the claw will pick up the ball?	**Test and observe.** What happened when you tried to pick up the ball?
A	Number of fingers: 1 (2) 3 Number of joints (Finger 1) : 2 (Finger 2) : 4 (Finger 3) : 0	I think... the claw won't pick up the ball because the fingers are uneven.	I observe... the claw couldn't get a grip and the ball slipped out.
B	Number of fingers: 1 2 3 Number of joints (Finger 1) : (Finger 2) : (Finger 3) :	I think ...	I observe...

CHALLENGE 2: WOOD BALL
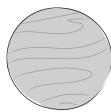
	Set up your claw.	Make a prediction.	Test and observe.
A	Number of fingers: 1 2 3 Number of joints (Finger 1) : (Finger 2) : (Finger 3) :	I think ...	I observe...
B	Number of fingers: 1 2 3 Number of joints (Finger 1) : (Finger 2) : (Finger 3) :	I think ...	I observe...

CHALLENGE 3: MARBLE

	Set up your claw.	Make a prediction.	Test and observe.
A	Number of fingers: 1 2 3 Number of joints (Finger 1) : (Finger 2) : (Finger 3) :	I think ...	I observe...
B	Number of fingers: 1 2 3 Number of joints (Finger 1) : (Finger 2) : (Finger 3) :	I think ...	I observe...