# **WORKSHOP EXTENSION ACTIVITY**

**Built by The Home Depot Kids Workshop** 



## MAKE. CREATE. EXPLORE.

#KidsWorkshopExplore







#### The Crowd Goes Wild...

Fans sit at the edge of their seats...The score is tied, you're only one point away from winning the championship, and you know it's now or never. You pull your foot back as far as it will go and kick with all your might. The football flies up, spiraling over the heads of everyone on the field, and the crowd goes wild as the football makes its way towards the goal post. Going... going...

#### An All-Star Field Goal

Though you may not actually be the star player on your school football team, there's certainly no harm in imagining! To make your all-star, game-winning kick as impressive as possible, follow the steps below to build a catapult that hurls your football into the end zone and through the goal post.

#### You'll need...

- 8 paint sticks (small ones like <u>these</u>)
- 6 rubber bandS
- 1 plastic spoon
- Field Goal Game







### Can you catapult the ball into a winning goal?

#### **Build Your Catapult**

- 1. Pick up six of the paint sticks and four rubber bands.
- 2. Place the paint sticks evenly on top of each other, so they form one thick paint stick.
- 3. Use the rubber bands to secure the paint sticks together, putting two rubber bands on each end of the paint sticks and twisting them until they are secure. Now put this to the side.



4. Take the remaining two paint sticks and place them on top of each other. This time, let one end of the bottom paint stick peek out from under the top paint stick, like this:



5. Twist one of the last two rubber bands around the two paint sticks, about an inch away from the end. (Note: Put this around the end where you can't see the bottom paint stick.) Make sure you twist the rubber band until it is as tight as it can go!)



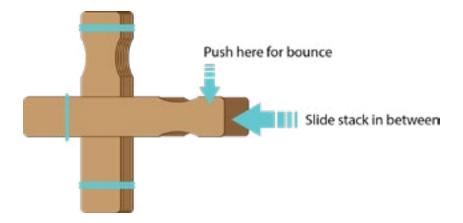




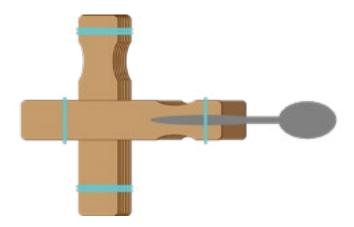
6. Use one hand to separate the two paint sticks that are now banded together. To do this, gently pull apart the paint sticks from the end farthest from the rubber band. When you pull them apart, it should look almost like a talking mouth!



7. Once you have the two paint sticks spread apart by about an inch, pick up the six paint sticks that you had put aside. Push them into the "mouth" of the two paint sticks as far as they can go.



- 8. If you press down on the top stick, it should have a little bit of a bounce!
- 9. Use your last rubber band to secure the spoon to the top paint stick. It may be easiest to twist the rubber band around the paint stick first, and then push the spoon in between the rubber band and the paint stick...but experiment with what you think is best!







- 10. Now it's go-time! Place the football onto the spoon. With one hand, secure the catapult onto the table. With your other hand, press the spoon down as far as it will go.
- 11. When you are ready, let go of the spoon. (But be sure to hold onto the opposite side so that the whole catapult doesn't go flying.) Your football should go whizzing into the air!

#### Back to the Game

Now that you've built your catapult, the fun can really begin! Remember, you want to make the football fly over the end zone and through the goal post. So, let's see if you can get it to do just that!

Experiment with your football, the catapult, and the Field Goal Game to see how you can best make sure that you score a goal.

Some factors to consider include:

- How far should the catapult be from the Field Goal Game?
- How far down should you push the spoon?
- How should you position the football on the spoon?
- How should you hold the catapult?
- Should any of the rubber bands be tightened or loosened?

Once you've made a goal several times in a row, do it one more time... But this time pretend there are five seconds left on the clock. Everyone holds their breath as the football goes flying through the air... Going... **SCORE**!

As you imagine the crowd out of their seats and cheering your name, come up with a victory dance. It's not every day that you make history. So get up, move a little, and celebrate a lot!

#### Go the Extra Down...

If scoring the winning field goal isn't enough for you, check out these additional challenges:

- Can you make a field goal from farther away? From closer?
- Is it possible to make your "kick" go higher in the air? What about lower to the ground?
- Can you redesign your catapult (perhaps using a different number of paint sticks or rubber bands, or new materials altogether) to lead your team to the same victory?



