



Home learning

*In case of a lockdown, the school can lend the material to children for some time after signing a responsibility contract with their families.

We will learn...

- ❑ To connect the physical world with the digital.
- ❑ Some basics of coding with Scratch.
- ❑ To collaborate (teamwork) and/or play together.
- ❑ ...while working hands-on and training our creativity in solving problems during the creation process.

Connections

Related ideas interesting to know before we start.

Did you know?

The first digital scorekeeper was invented back in 1908. Before, people used scorecards.

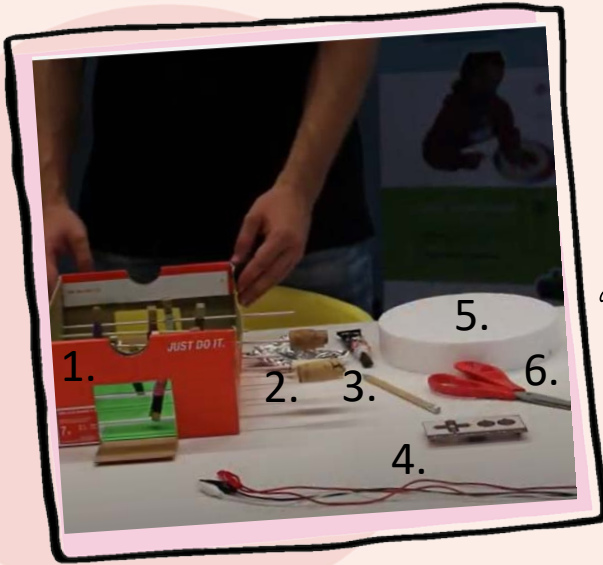
The largest scoreboard in the United States is in Florida in the Everbank Field (American football field).

In this Capsule, you are going to program your digital scoreboard to incorporate it into your DIY football table.



Get ready!

Grab all the required materials and tools to start.



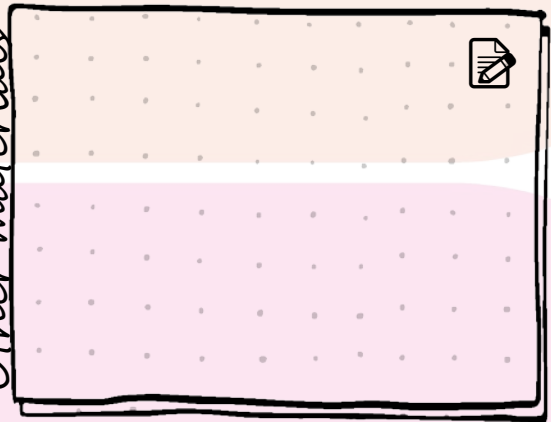
Tick the materials that you already have

Materials

- | | |
|--|--|
| <input type="checkbox"/> Computer with access to Scratch | <input type="checkbox"/> 2. Tin foil paper |
| <input type="checkbox"/> Shoebox lid | <input type="checkbox"/> 3. Glue |
| <input type="checkbox"/> Tin foil | <input type="checkbox"/> 4. Makey Makey |
| <input type="checkbox"/> Football ball | <input type="checkbox"/> 5. Platform |
| <input type="checkbox"/> 1. DIY Football table | <input type="checkbox"/> 6. Scissors |

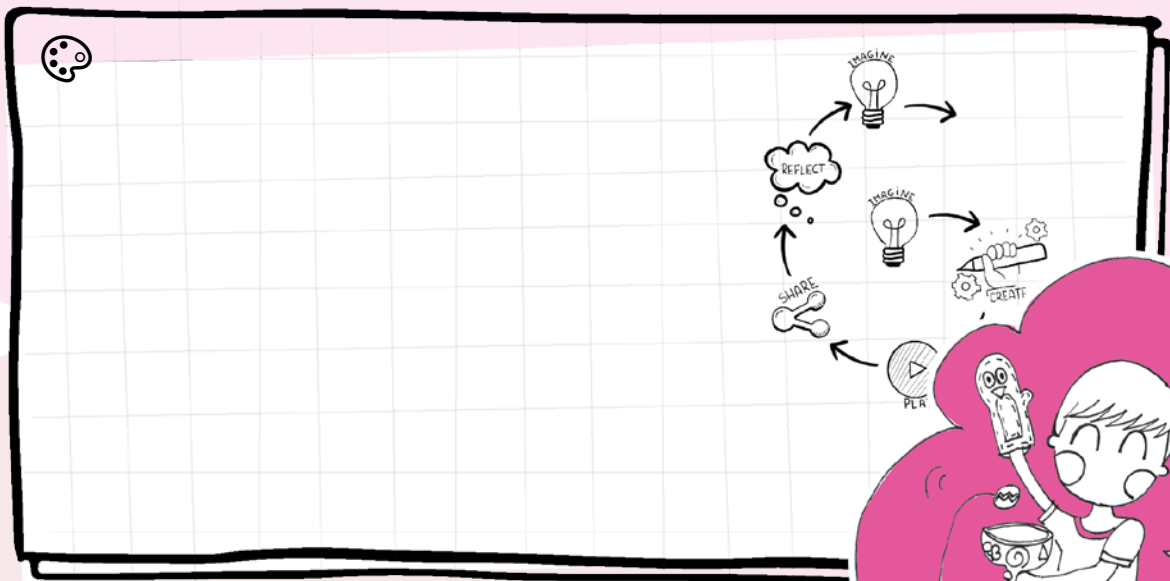
Are you missing a material?
For which one could you replace it?
Will you use others to decorate?
Write them down.

Other materials



Imagine

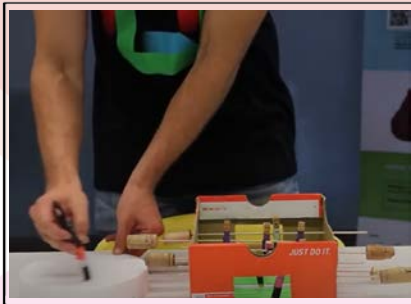
How do you imagine your Scoreboard Scratch project? Draw it.



Let's create!

Follow the instructions and ask for an adult supervision when necessary.

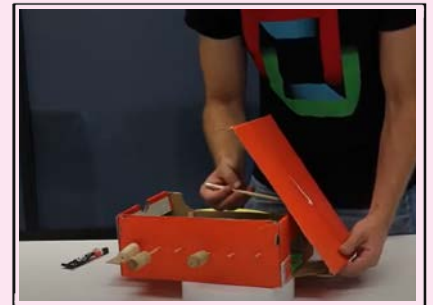
1. Scan the QR code to access the step-by-step video. If possible, find a family member or a friend to work together on this Capsule.



2. Glue the platform to the base of your DIY football table. The platform has to be big enough to keep the shoebox steady.

Why do you think we are elevating our field?

3. Remove the longer side-faces of your shoebox lid. Place one short side in one of the goals and draw a line where the inside base meets the top edge of the box.



4. Using this line, draw two rectangles the same width as the goals and cut them out.



5. Wrap the rectangles middle and base with tin foil paper. Next, glue them in the goals, leaving a space to recuperate the ball.

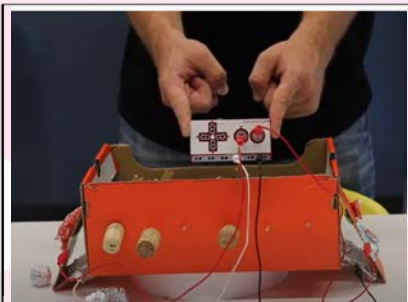
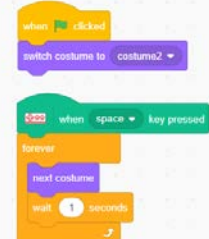
How come we have wrapped the goals with tin foil paper this way? What else is made of tin foil in our football table?



6. Open the Makey Makey Scratch extension in your computer. Pick a background and two number 0s as sprites. **Go to costumes** and personalize them.

7. Program the two sprites to **change costume** every time the right or the left arrow key is pressed (Makey Makey instruction blocks). Also, to reset to 0 when the green flag is pressed.

What previous step did you have to do for this to work?



8. Finally, connect the alligators pegs attending to your coding program.

In this case, how do we close the circuit to make the program work?



Play and share

Try out your scoreboard playing with a friend!

I tested my scoreboard with _____



Reflect

Choose one of the following questions and develop its answer.

1. How does it help or not having a scoreboard while playing with friends? Why?
2. Explain to someone how your football table scoreboard works. Write down what you are going to tell.
3. What do you think is the relevance of game rules? Justify your answer.

How many stars will you
give to your critical
thinking? Colour them!





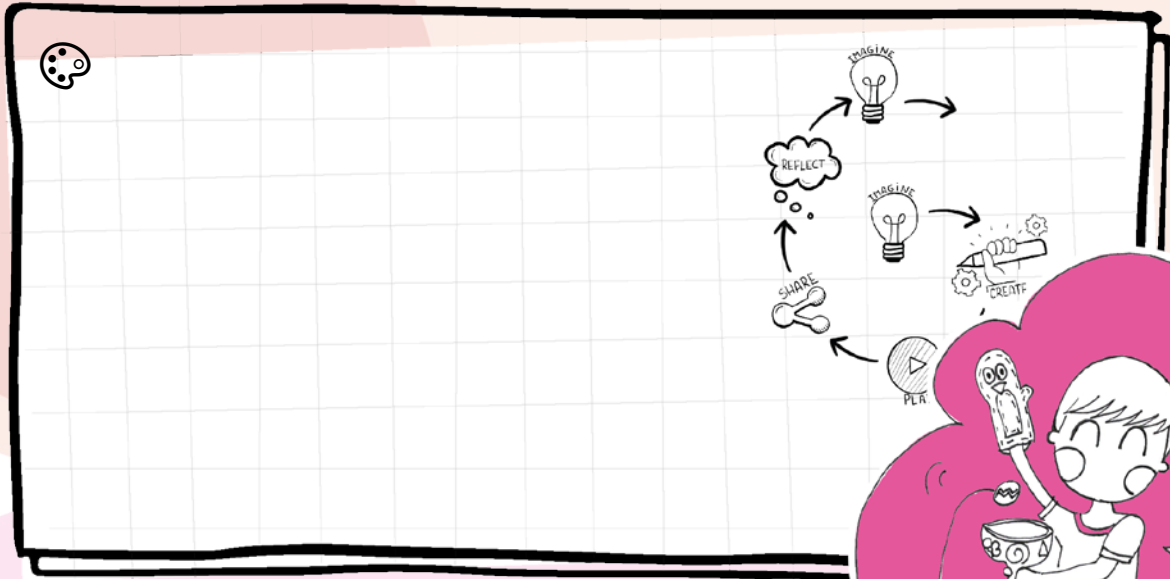
School Workshop

** Otherwise, children do the Educative Capsule Football Table I at home and the Football Table II: add a scoreboard at school, giving them the opportunity to work with materials that wouldn't get to know in another context like Makey Makey.



Imagine

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Lined writing area for the reflection answer.

