

# The BeachMap Game

by

[Scott Pickard](#)



Several years ago my wife and I were vacationing on the beach near the Warren Dunes State Park in Michigan. Next to us was an attorney from Madison, Wisconsin and his family who we befriended and enjoyed their company and conversation. The next thing I know the attorney and his daughter were off walking the beach for two hours collecting rocks and putting them in plastic bags. When they returned to their spot right next to us, they dumped the rocks in the sand and in less than an hour they sifted through the rocks and picked ones that best matched a particular state and they constructed a map of the United States right there in the sand from memory. Wow, was I impressed!

I would guess the daughter was in high school and clearly she and her dad had done this before. My immediate thought was, I can't do that! I thought I knew the U.S. states pretty well having traveled through every single one of them (the lower 48 not including Alaska and Hawaii), but in spite of that there was no way I could construct a map from memory and be able to identify rocks that could represent each state and put them in the right position. Right then and there I challenged myself that I would learn how to do this and I would construct my own "beach map" out of rocks the next summer, and this is the story of how I did that.

**A game/activity idea is born**

During the drive home from the beach (which takes about three hours to get to Champaign, IL), my mind was racing with ideas about the beach map. The simple pledge to just learn how to do it grew into an idea to create what I call a “family beach activity game,” call it BeachMap. Once the spark of an idea takes hold, there is nothing more enjoyable than that first period of brainstorming to try to put that idea in motion. My wife and I enjoyed a back-and-forth discussion in the car trying to figure out how we could create a tool/process that would help teach adults and kids how to build a map out of beach rocks and have fun in the process. If you ever get creator’s (writer’s) block, try getting in the car with a collaborator and drive for three hours and the ideas will flow!

### **Tinkering in the garage**

I do all my creating and designing in several places, but when it comes to dealing with something physical I like to go to my garage where I have all my tools and lots of bench space. My first thought was to develop a device which would allow me to “stamp” a map of the United States in the sand which would also show the outline of each individual state. That way you would have a guide for the shape and size of a rock you would need for each state and it would simply be a matter of placing that rock in the right position. You would also have the benefit of making the entire map and each individual state in perfect scale to each other. So for the last three summers I have built three beach maps with rocks and experimented with several different ways to “stamp” the map outline in the sand.

I made my first stamp out of silicone rubber using a 2-component product called OOMO. The rubber stamp looked like a blue doormat. To do this I purchased a box of laser-cut wooden U.S. state pieces from a supplier in Greece I found on Etsy. I laid those pieces out on the table and kept a 1/8-inch gap between the border of each state. Then I poured the silicone rubber mixture over that map to form (cast) the stamp. When the rubber had cured, I peeled it off the table and carefully removed each state piece which revealed the impression of a U.S. map with a tin border around the perimeter of each state.



The stamp worked quite well but it had the disadvantages of: (a) being too heavy, i.e., too costly to ship to a customer; and (b) the thin borders around each state were not durable and wore away in spots. My first beach map using the “doormat” stamp was a total success (people loved it!) but I didn’t think it was a feasible approach if I were going to make this a game product which could be economically shipped to customers.

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**Mike Clancy** Where's Hawaii and Alaska?

September 5, 2013 at 8:14am · Like ·  1



**Pam Lewis Donnelly** Excellent!

September 5, 2013 at 9:13am · Like



**Margaret Martin** That is so cool!

September 5, 2013 at 10:39am · Like



**Scott Pickard** Hawaii and Alaska will be there next summer!

September 5, 2013 at 2:24pm · Like



**Diana Rogers Spurgin** Deidre Gilligan and I saw it this morning - nice job! But I think somebody already added Alaska.....(and it wasn't us!)

September 5, 2013 at 9:45pm · Like




**Ellen Rosen Erick** That is so fun! Sorry we missed you..

September 5, 2013 at 10:08pm · Like



**Scott Erick** From the picture it looks like almost every state is made of siltstone, or sandstone, except Vermont, New Hampshire, and Connecticut, which might be (based on color only! Not very diagnostic...) igneous rocks (basalt). Love it!

September 5, 2013 at 10:57pm · Like ·  2



**Jeanne Fields** This is great...I love it.

September 6, 2013 at 12:02pm · Like



**Mary White** I saw it--up by the bench--awesome!

September 6, 2013 at 9:13pm · Like



**Joan Miller Brown** That is awesome.

September 10, 2013 at 6:09pm · Like

For the second map, I built it simply used the “puzzle pieces” of each state and assembled them on the beach to create a map impression in the sand. Then I was able to remove each wooden piece and use each piece as a guide when walking down the beach to find a good rock to match that state. I didn’t like this technique as much as having a stamp which could be used to quickly make a perfect impression of a map of the United States in the sand, as many times as I wanted; however, the individual state pieces are very light and economical to ship.



For the third prototype, I constructed a stamp by gluing the state pieces on a piece of plywood in reverse (mirror) image so that when the stamp was turned over and pressed into the sand it would make a perfect impression of the United States map. This clearly would be too big and bulky to ship as a game product, but this gave me a durable stamp for experimentation and many trial runs on the beach.



I think I've figured out how to make a very lightweight, flexible, and economical stamp, but I'll save that information for a follow-on post.

### **It's all about the rocks**

The basic idea of the game/activity is to walk along the beach and find one rock that is the approximate size and shape for each particular state. You will discover, however, that this is basically impossible to do for the states California, Texas, and Florida, so you may need to use two or more rocks to configure those states. This is not a game of perfect so you have to embrace the imperfections. If you find a rock that is shaped exactly like a state and is the right size, pat

yourself on the back because that's pretty rare. As Tim Gunn of Project Runway says, "Make it work!"

Another objective is to make the overall map and each individual state to scale, whatever that overall scale will be. That's why the stamp approach is so helpful. The range of size of rocks you can reasonably find on any given beach will dictate the size of the map you can build. The beach where we go to in Michigan has rocks anywhere from a tiny pebble up to about 4 inches in height x width. That's why I usually need two rocks for Alaska, California and Florida, and 3-5 rocks for Texas (wouldn't you know it, my home state!)

Walking along the beach and trying to find rocks that match the approximate size and shape of a state is what the game is all about. It sounds so simple (and to some, maybe even boring) but this is a great visuospatial activity for kids and adults alike and when done with someone else, it is really more fun and satisfying than you might think. You've just got to give it a try and in the process of having fun, you will learn your states!



One approach is to set out with a puzzle piece for say, Illinois, and try to find that rock. That's a very focused way to do this but it's a bit of a needle-in-a-haystack approach and I have discovered that it's not the best technique. What my wife and I do is walk along the beach and pick up a bunch of rocks that at the time look like they might be good matches for one state or another. Then we come back with a big bag of rocks and dump them out on the beach and do the matching at that time. As you start to populate your map with rocks (states), you will have inevitable gaps and then you can go back out down the beach to specifically look for those rocks to close the gaps. Trust me, after you do this a few times, it's surprising how good you get at it.

### **Lessons learned**

I've been enjoying experimenting with this activity for three summers now and here's what I've learned:





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