**Overview:**
SimTable is a interactive digital sand table (crushed walnut shell- **\*\*see allergy warning below\*\***)
that allows users to create and shape 3D projected maps. The SimTable mapping options include
Bing satellite imagery, ERSI imagery, USGS topographical maps, and open street maps.
Additional maps and mapping services can be searched for by using Chrome browers and opened
on Simtable in a new tab.

**Goals:** The goal of SimTable is to have students interact with maps to enhance their
understanding of the local landscape,  regional topography/oceanography, map locations, input
points, lines and polygons, and run different senarios.

**Objective(s):** Students will:
- Learn topography of a specific area.
- Create maps of certain areas within the Chugach Region.
- Develop scenarios that include (watershed, climate change, traditional place names,
  nomadic movement, wind direction, tidal movement, release flow, etc.)

**Materials/Resources Needed:**
- SimTable kit
  - Projector and Computer
  - Base and Four sides labeled (1&2 3&4) Photo #2
  - Plastic Base
  - Tripod
  - Four Bags of sand (crushed walnut shell)
- Two Folding Tables (2.5 x 6 feet each)
- Strong WiFi
- Power outlets
- Dedicated space for set up and use

**Teacher Preparation:**
- Review *SimTable Instructional Manual*
- Review AnyHazard Manual located in SimTable kit
- Set up SimTable (follow Chugachmiut SimTable directions of use)

**Mapping Resources for SimTable** (Links are set on tabs with in SimTable web browser)
- AnyHazard tools: apps.simtable.com
- ADFG: Alaska Freshwater Fish Inventory (AFFI)
- NOAA: Bathymetric and Fishing Maps; Interactive Map Viewer
- Alaska Ocean Oberving System: Gulf of Alaska Data Portal
- SNAP: Scenariors Network for Alaska and Arctic Planning

*If you find additional mapping resources that work with SimTable please record and share
with Chugachmiut for continuous improvement.*

## Set Up: (pictures below)

1. Set up two folding tables (a minimum size of 'x6') with electrical outlet close by.
2. Lay out the base of SimTable and locate the four sides
3. On each side, lay out upright sides (1 & 2) (3 & 4)
   a. Take note on end tabs, these will ahead to the corners of the base.
4. Once the sides are securely in place and upright; layout plastic visqueen from the SimTable materials located in gray tote.  *This step is <u>important</u> as it helps with the clean  up process!
   a. Flatten plastic and tuck ends under the table. Use binder clips to clip plastic to sides of base.
5.  Add the sand (crushed Walnut shell, **see allergy warning below**).
   a. Pour in one bag at a time slowly. Use the trowels located in the materials box to smooth out the sand and fill the space.

**\*\*Allergy Information: This material is made from crushed walnut shell and could cause an irritation or allergic reactions. Consult with your school nurse  to address any students or staff whom may be allergic to nuts and/or walnuts. This is a find powder and some individuals w/ asthma could have an irritation from the "sand particles"\*\***

6. Installing Projector and Computer:

   a. Unpack unit from Pelican box, use assistance if needed.
   b. Remove tripod head and install onto the frame of the projector and computer unit.
   c. Attach projector to the tripod and secure. You will need to adjust the height based on the table height. Set the tripod to approximately 6' 7" in height.
   d. Center the unit on one of the long side of the SimTable. (Photo #13)
   e. Plug in cords to outlet using the power strip. An extension cord is also available, if needed. Two plugs are required.
   f. Proceed to turn **ON**,  both the projector (remote) and Apple mini computer on the tripod stand.

7. Running AnyHazard:
   a. AnyHazard is the application where you can create, manipulate maps, label and run live scenarios (fire, watershed, rain events, release, wind etc…)
   b. Single click on AnyHazard logo on side bar. Follow directions centering tripod camera and flatten sand.

**Photos of SimTable Set Up:**



1)  Lay out Simtable bottom on tables
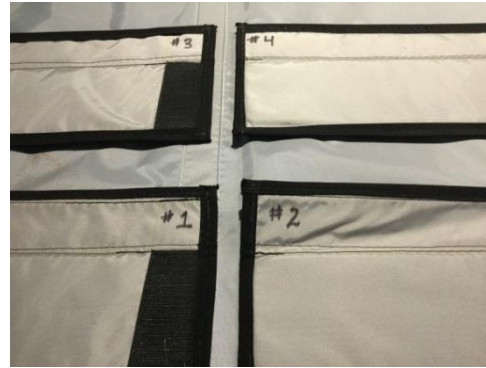


2) Match up numbered sides



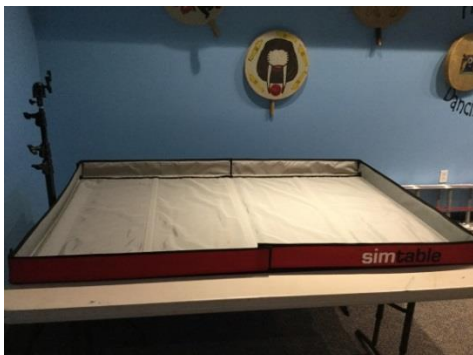3)  Sides fit together using velco



4) Attach sides and smooth out



5) Corners wrap around ends



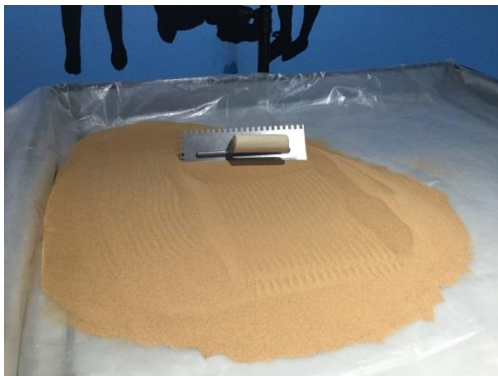6) Corner wrapped trapping sand
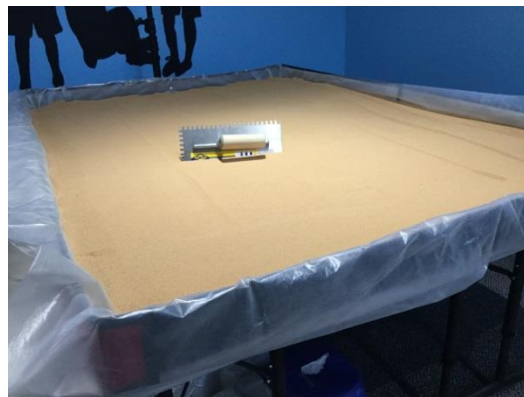


7) Table complete



8) Lay visqueen out flat

9) Use binderclips to secure to sides


10) Four bags of "sand"


11)Slowly pour bags one at a time on table


12) Smooth with trowel


13) Center Tripod along the long side of table


14) Simtable computer and projector (packed)

15) Keyboard, mouse, projector remote, pointer
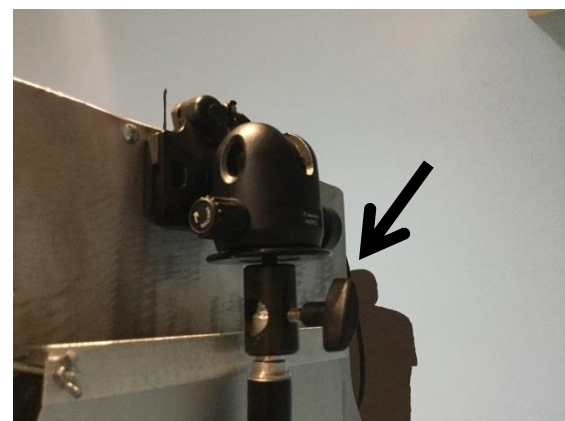


16) Projector and MacMini



17) Tripod



18) Tripod head to connect to projector base



19) Tripod head connected to projector base making sure the latch locks in place.



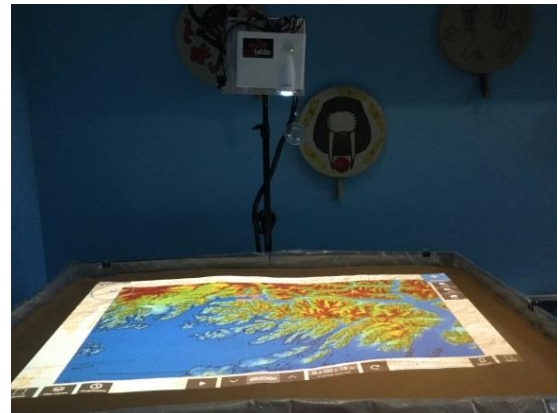20) Place base on top of tripod and secure the tighting screw.

21) Set on tripod, tighted and adjust to proper height for projection.



22) Level the projector with slight adjustments This can be challenging we have used packing tape from the projector base to the tripod to assist with leveling.
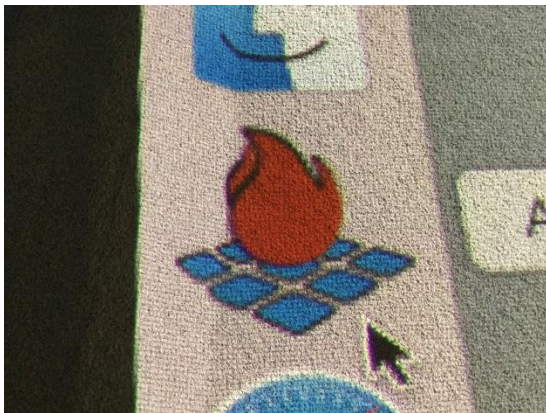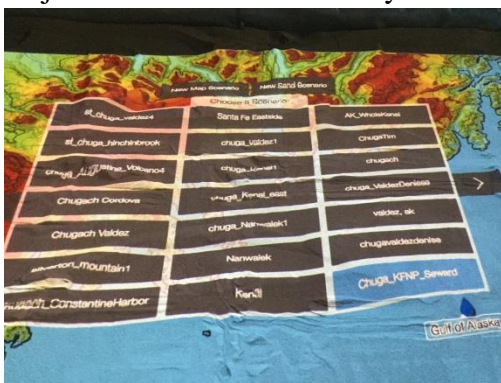


23) Turn on computer and projector

Adjust camera and launch AnyHazard.



24)Example of SimTable with slope shading on.



25) Window showing map and new map options



23) Cover with visqueen when not in use.

## Clean Up:

1. Included in the kit are scoops, dust pans and small hand broom to assist with cleaning. Bag the "sand" in provided dry bags up to the fill line. Gather as much sand as possible from the SimTable.
2. Use the Ryobi vacuum to clean remainder of sand from the SimTable base, especially the velcro connections.
3. Clean and carefully fold visqueen and return to gray tote.
4. Use the inventory list to account for all SimTable parts and items before returning.

## Inventory:

- ☐ Two pad locks and key
- ☐ Pelican case
- ☐ Logitech K520 Wireless key board
- ☐ Logitech M310 Wireless Mouse
- ☐ Laser pointer (Black) Staple brand
- ☐ (1) Laser Pointer (Black) Staples brand
- ☐ Projector Remote
- ☐ Tripod (Large)
- ☐ Projector
- ☐ Mac Mini
- ☐ SimTable base and (4) sides
- ☐ (2) sheets of plastic Visqueen
- ☐ (4) Bags of Crushed Walnut Shell + Four dry bags
- ☐ Plastic Tub (Gray)
- ☐ Any Hazard manual
- ☐ (1) white scoop
- ☐ (2) Black dust pans
- ☐ (2) Mini Broom
- ☐ Ryobi Vacuum w/ 18volt battery / charger
- ☐ (1) Orange Extension cord
- ☐ (1) Trowel
- ☐ (1) Power strip

# SimTable in the Classroom