COASTAL RIVERS
CONSERVATION TRUST

Math in the woods

#4 – Make a trail map

Level: All ages

Skills: Math, spatial relationships, drawing

Mapping is a great way to develop math and spatial relationship skills. This activity naturally lends itself to integrating art and language skills as well. There are many directions you could take it, so go outside and have fun with it!

You will need:

- a pencil or pen
- colored pencils or crayons
- Something hard to write on, like a notebook, a clipboard, or a piece of cardboard with a rubber band wrapped around it
- paper
- 20 feet of string
- a sample trail map or preserve map if you have one (you can always download one from our website at coastalrivers.org)

Preparation:

Talk with your kids about looking at objects from different perspectives and try the following activities:

1. Read Jon Van Zyle's book *Raven and River* or another book that shows landscapes from above

2. Practice with perspective by drawing an object from the front, from the side and from above.

3. Look at Google Earth Images together. What does your home look like from above? Your school? Your favorite trail?

4. Look at a preserve trail map together (there are many available on our website) and discuss the key, symbols used, and the perspective. Try drawing a sample map of one room in your house with a key and symbols.

Mapping activity:

Depending on how everybody works best, this can be done together as a family on one big map, or by having kids do their own section of the trail on their own.

1. Once you've had a chance to look at a map together and talk about the key and symbols used, gather the supplies listed above and go outside to your backyard or to any nature area.

2. Assign each kid a portion of the trail and have them spread their string along that section.

3. Have them draw a map of their section of the trail as thought they were viewing it from above. Each map should have symbols and a key.

4. Return home and hang the maps for all to see!

Additional optional activities:

1. Out of clay (or in the sandbox or on the driveway!), make a 3D model of the trail.

2. Go outside and pretend to be an ant (discuss how the world looks from a millimeter off the ground) or a bird (how does the world look from up in the air?).

3. Share your maps with me – I would love to see them!