

# Children's Discovery Museum 2002



Activity: Watershed Map Making

Materials: 8.5 x 11 paper  
Green, blue, brown and other water soluble markers  
Spray bottles

Procedure:

1. In this activity, everyone will transform a piece of plain paper into a detailed topographical relief map. Before beginning, discuss the differences between a flat map, topographical map, and relief map.
2. Model the step- Crumple a piece of paper into a small ball first. Then open but do not smooth out flat.
3. Have students do this- with imagination their paper should look like a miniature range of mountains and valleys.
4. Model the step- With brown markers- trace the 'ridges' of your 'mountains' starting at the tallest 'peaks'.
5. With blue markers- trace the lowest points between all the ridges. This is where rivers and creeks flow. What happens at the lowest points where the creeks meet? Draw in your freshwater lakes.
6. Give students time to work on the watersheds.
7. Add green along the riparian zones. This is where more vegetation grows.
8. Finally, add where people would build houses and human additions. On the lakeside? Near a creek? In the mountains? Why are different locations preferred?

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## Reflection:

9. Take a close look at the maps. How are the maps similar and different? Do any of them remind them of real mountain ranges? What do students think would happen if it rained on their mountain ranges? Discuss theories. Examine the houses--are any sitting on floodplains?
10. Before making it rain on your maps, discuss the term watershed. A watershed is the entire land area around a stream from which all runoff ends up in that same stream. The boundaries of a watershed are naturally ridges. On one side of the ridge, the water ends up in one creek, and on the other side of the ridge, the runoff ends up in another creek. The ridge is the boundary between the watersheds of the two creeks. Point to specific spots on the students' maps and ask the group to predict where the rain will go. Observe which stream it feeds into. The spot you pointed to is a part of that stream's watershed!
11. Now it is time to see if your predictions are correct. Hand out sprayers and make it rain! Hold the sprayers up above the maps, so the water is not sprayed onto them but falls from above. It will take several spurts of water before the creeks start to flow, so WATCH CAREFULLY! Examine and share results. Set maps in a sunny spot to dry.