

Where have the Waters of Kāne been?



This Water Cycle game is based on “The Incredible Journey” activity developed at the University of Montana that is now part of the Project WET curriculum. Here we have adapted it for the west side of the Big Island of Hawai‘i. The activity teaches students how a droplet of water moves through the water cycle. We recommend doing this activity after you do “The Waters of Kāne” activity.

Time Needed: 20 – 30 minutes

Grade Level: 2nd – 5th grades

Materials Needed:

- 8 station signs
- 8 custom dice
- 30 game cards downloaded from:
<https://www.cns-eoc.colostate.edu/national-park-service-partnership/waters-of-kane-dice-game/>
- 30 pencils or wet-erase pens (i.e. Vis-à-vis) if the game cards are laminated
- 1 laminated graphic illustration of the proportions of freshwater to total water on Earth
- 1 spray bottle with tap water and paper towels for cleaning game cards (if they are laminated)

Game Set-Up:

There are eight laminated cards that mark the stations. Each station represents one “reservoir” of water (i.e.: oceans or clouds). In a classroom, it works well to push the chairs in and arrange the tables so that eight are spread out and easily accessible. Each table gets one of the station marker cards. Outside, you can place the station markers on the ground.

Each station gets one die that matches that station name. The cloud station should have the cloud die. The ocean station should have the ocean die, and so on. The pictures on each die are statistically weighted to simulate the relative proportions of water in each reservoir.

Each student will need a game card. If they are laminated, they can be reused. Wet erase pens (i.e. Vis-à-vis) work well on lamination and don't tend to smudge as much as dry erase pens.

Playing the Game:

1. Distribute the students evenly among the eight stations to start.
2. Everyone should color one square on the Game Card that corresponds to the station they are at. They can also practice pronouncing the Hawaiian names.
3. Students will take turns rolling the die at that station. They should roll it gently and not let it fall on the floor where it is tempting to kick.
4. After rolling the die, students should mark the square that matches that station on their Game Card and either stay or move to the new station, depending on what they rolled. For example, if they are at the cloud station and roll a cloud, they would mark another box under the cloud on their Game Card and stay at that same station, waiting for another turn to roll again. If they roll ocean, then they mark a square under ocean on their Game Card and move to the ocean station and wait their turn to roll that die. **They must not forget to mark their card every time they roll a die.**
5. Let the game go for approximately 20 minutes – this gives enough time to collect a good amount of data for the class.
6. It is helpful to have someone to help manage the crowds that happen at the Cloud and Ocean stations – making sure they are taking turns nicely.





7. During the game, make sure to point out when the majority of the class is stuck in the ocean or going back and forth between the clouds and the ocean. Ask them to stop for a moment to reflect on why this is happening.

8. At the end of the time limit, each student should count the number of check boxes marked for each station. They can put their results on the white board for the entire class to see. Where were they the most? Where were they the least?

9. Conclude with a discussion about the small amount of freshwater that is available on Earth and ask students to brainstorm ways they can conserve water.

10. If you have laminated Game Cards, clean them **soon** after use with water from a spray bottle and a paper towel or rag.

