



Live Hike: Island of the Blue Dolphins Post-Program Activity

After the Live Hike

To reinforce the concepts introduced during your program, have your students participate in the activity outlined below.

Materials

NOTE: Materials listed are enough for one group of about four to six students at a time.

- five different bags of beans (different sizes and colors)
- 12 small plastic/paper cups (shot-glass size)
- 12 regular size plastic/paper cups
- two small bowls (margarine-tub size)
- two large bowls (shoe-box size)
- a timepiece that measures seconds

Duration

25 minutes per group

Procedure

To set up the station: Place half of each of the **five** bags of beans in one of the large bowls and mix thoroughly. In one of the small bowls, put the other half of only **two** bags of beans and mix. With the teacher facilitating the station, have students rotate through while other students are involved in seat work.

Set the two large bowls in the middle of the table. The full bowl will be the “habitat bowl.” The empty one will be the overflow bowl for “used natural resources.” Give each student small and large cups. Explain to students that the beans in the bowl represent natural resources they need for survival as a local tribe of American Indians **on the mainland**. They will have 10 seconds to scoop natural resources out of the bowl with their small cup and transfer them to their large cup. Allow them to proceed.

After 10 seconds ask them how they feel about the amount of natural resources they collected. Do they feel they have enough to survive? Now explain this was an average year, so natural resources were replenished (grew or reproduced) at an average level. Put two of the students’ cups of beans (three if there are six students participating) back into the bowl full of beans to simulate regrowth for the following year and the other two (three) in the “used natural resources” bowl.

Have them repeat the activity. What do they notice now about the level of natural resources in their “habitat bowl”? They should notice the level dropping significantly. This time, explain there was a drought, so the natural resources didn’t regenerate as well. Only put back in one cup (1½ for 6 students) and the rest in the “used natural resources” bowl.

Are they going to survive as a tribe if they keep using their natural resources at this pace? Do they have any suggestions? Don’t take as many natural resources/ration, collect for less time, only collect a couple cups each, etc. Take suggestions from them as to how to proceed. Run another trial, using their suggestion, and let them analyze if they think their alteration was enough or if they need to do more. You can continue to manipulate the habitat bowl each “year,” returning less than half the beans for drought, flood, famine, and disease and returning more than half for a good, high-yield year.

Once they feel they have reached a method that will achieve sustainability, put aside the large bowls of beans and introduce the small bowls. Explain that the bowl containing two bags of beans represents the natural resources available **on the islands**. What do they notice? There is less abundance (total number of natural resources) and less diversity (fewer types of natural resources). Why? The islands are limited in size, and fewer species of plants and animals live there.

Do they think the strategy they created for collecting natural resources in the larger “mainland” bowl will work in this new habitat, or do they have new strategies to suggest? Allow them to run a few trials with the smaller “island” bowl to see if their strategies work.

After the trials, have a brief discussion about how the island tribes had to adapt differently to the differences in natural resources. You can offer a few strategies they might not consider, including:

- During a high yield year they might collect more and store it for future use.
- They might plant/grow resources.
- They might discover new resources to make use of.
- They may have smaller populations/families.
- They might trade for what they are missing.