TUMBLING LONGLEAF ECOSYSTEM FACILITATOR GUIDE

An interactive way to distribute information about longleaf pine ecosystems and the role of GOOD FIRE!

THE BLOCK TOWER REPRESENTS A HEALTHY LONGLEAF PINE ECOSYSTEM.

Only 1 person is needed to play, but could have 4 people or more taking turns. The tower is set up with alternating rows of 3 blocks. For the 1st layer, place 3 blocks next to each other. For the 2nd layer, place 3 blocks perpendicular to the previous layer. And so on…

1. Each block represents a component of the "tower" forest. Blocks will be color coded & have symbols to represent "categories":

   Green = Longleaf pine trees   **Red = Fire**
   Yellow = Understory plants   **Blue = Wildlife**

   Note: To place an emphasis on the role of GOOD fire for forests, this game does not address the abiotic components (water, air, soil) of an ecosystem.

2. Take turns removing one block at a time. Remember: removing blocks represents the removal of a critical ecosystem component.

   Try out different strategies to determine which color to remove. There are multiple ways to play.

   - Roll a dice with corresponding category colors.
   - Use a spinner with corresponding category colors.
   - Assign colors to participants to remove.

3. As a facilitator, provide examples why these components might be lost in longleaf pine forests as blocks are removed.

   Reasons include natural processes, natural disturbance, and/or human disturbance like succession, storms, floods, habitat loss, drought, predator/prey relationships, and competition with another species (native or non-native). This list can be tailored to the participant demographic.

   Longleaf specific examples might be fire suppression, logging, lightning strikes, lost habitat for an animal, etc.

   For example: when a green "pine" block is removed, you might say "longleaf pines were cut down for timber, but cutting down a few trees does not destroy the forest." The participants can see that the tower forest is still standing.

4. After removing a block, **DO NOT return the blocks to the top of the tower**. Instead place the blocks to the side. Why?

   - Once a part of the forest is lost, it may not magically reappear. Example: an "old-growth" tree with a woodpecker cavity takes years to replace.

   - Very important: this will keep the tower smaller and potentially at a safer height for children.

5. Take turns removing blocks until the tower falls.

6. Discuss the results. Ask participants to explain what happened.

   - Who is to blame for destroying the longleaf pine ecosystem?
     Participants will be quick to blame the last person who pulled a block, but anyone who took a block helped make the tower fall
   - What would happen if we removed all the fire blocks?
   - Could the extinction of a plant/animal cause the tower to collapse?

SAFETY CONSIDERATIONS:
Toppling of heavy wooden blocks pose a falling risk, esp. for small children.
To minimize this risk, please:
- DO NOT STACK removed blocks on top of the tower
- Keep the game low to the ground (on a small table/platform)
- Set up a safety play zone with only 1 person near the tower per turn

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This activity was developed by the North Carolina Forest Service to promote the Longleaf Pine Initiative.
The North Carolina Forest Service is a division of the North Carolina Department of Agriculture and Consumer Services.
Steve Troxler, Commissioner | www.ncforestservice.gov

7. **RECONSTRUCT** the longleaf tower by recruiting the participates to "restore" the longleaf forest. While restacking the blocks, name the restoration activities. Plant trees, sow grass seed, conduct a prescribed fire, etc.

- This is an important take home message: restoration and conservation in action!
- Also, sets up the tower for the next round. Double win.

A note on engaging people in the GOOD FIRE message:

The block tower is an excellent way to visually demonstrate the role of good fire in the forest. Try engaging folks who may not want to actually play the game with a quick take home message, such as:

- *This block tower represents a healthy longleaf forest, with trees, understory plants, wildlife, and natural FIRE.*

- *Many of our forests are built by fire, like longleaf pine. Even more plants and wildlife in the forest depend on fire to create good habitat.*

- *What would happen if all the red fire blocks were removed from our forest?*
  The forest would quickly would quickly change (or collapse).

HELPFUL TIPS TO CREATE YOUR OWN ACTIVITY:

1. Find (or make) your block set.
   This activity was originally created using a GIANT tumbling block set, but smaller sets work too. If purchasing a giant set please consider the size and weight of the blocks.
   - Hollow block sets are ideal to reduce the hazard of heavy falling blocks. (Similar to Super Tumbling Timbers set by S&S Worldwide)
   - Colored block sets are available to buy online, but many have more than 4 colors included.
     Don't rule these sets out as the additional colors could provide an extension to the ecosystem lesson. For example, what happens when an invasive species is introduced to an ecosystem? Demonstrate this by asking the participants to add different colored blocks into the empty spaces and see the forest transform.

2. Customize the blocks to emphasize the different ecosystem components.
   - Paint: Easy to do, but painting the whole block changes the finish and reduces the ability for the blocks to slide easily. Recommend painting the ends only.
   - Stickers: Turn artwork into custom stickers to add to the ends. This is a great way to have both the words, images, and colors on each block.
   - Vinyl cutouts: Very durable & holds up great.

3. Dice? spinner? Or???
   Try out different options for the players to determine which color to remove on their turn. Some colored block sets come with a matching dice, but a spinner works as well (repurpose or create your own).

4. Plan your play space.
   - A small platform or wooden crate makes a great playing surface that is low to the ground.
   - Suggest using a tarp to designate the "play space" for young kids, emphasizing one player at a time in this area.
   - Indoor spaces: the falling blocks can be quite loud in closed spaces and on hard floors. If using inside, consider a carpet to help muffle the sound.

5. Signage! Provide handouts or signs to explain the game.