

TUMBLING LONGLEAF ECOSYSTEM:

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

The Jenga 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 3 blocks stacked next to each other for the 1st layer. Then for the next layer, lay 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.

- Roll a dice with corresponding category colors
- Assign colors to participants to remove
- Try out different strategies! There are multiple ways to play.

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** like traditional Jenga. 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.

- How many blocks did it take to collapse the tower?
- 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?

7. **RECONSTRUCT** the longleaf “restoration” tower. While restacking the blocks, name the components to restore the longleaf forest. 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.

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



A note on engaging people in the GOOD FIRE message:

The Jenga tower is an excellent way to visually demonstrate the role of good fire in the forest. I encourage you to engage passersby (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).

How to make your own GIANT “Jenga”:

1. Buy your set!

- Sarah’s top recommendation: This set is the BEST! It is hollow and much lighter than other sets. Usually \$200: <http://www.swww.com/item/super-tumbling-timbers-W8204/>.
 - Note: this set does NOT come with the dice
 - While more expensive than other options, you can usually find a coupon to save some money.
- Sarah’s other version: This was my first set that I settled on before discovering the hollow set. https://www.amazon.com/Lewo-Stacking-Hardwood-Building-Storage/dp/B01MA22MN9/ref=sr_1_24?crid=PJ16LWPQTNPS&keywords=color+tumbling+tower&qid=1567094820&s=gateway&sprefix=color+tumbling+%2Caps%2C144&sr=8-24
 - Note: Because it came with more colors than I needed, I painted those blocks to match, but I do not recommend this approach.
 - Instead, consider leaving the pink/purple blocks out to make a shorter tower.
 - SUPER heavy but comes with 2 dice!

2. Customize your blocks to emphasize the different ecosystem components.

- Paint ONLY the end pieces. Painting the whole block changes the finish and reduces the ability for the blocks to slide easily.
- Stickers: Turn custom 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. 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.

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

Questions? Contact me!

Sarah Crate | Longleaf Program Coordinator | 919.857.4815 (o)
Sarah.Crate@ncagr.gov | nclongleaf.org





