JENGA: PROTECTING CORAL REEFS
Nature Foundation St. Maarten edition

Protecting the reef is more than just a game... it's a balancing act!
Students will learn that there are many factors that affect the health of St. Maarten's reef ecosystems, both negative and positive. To preserve and protect our coral reefs, we must address as many factors as we can.

HIGHLIGHTS

- Negative and positive human impacts on coral reefs
- Extent to which human activity can cause or mitigate damage

CONSIDERATIONS

- Limited participation
- Optimal 3 participants at a time

TOOLS NEEDED

- Jenga game
- Presentation about the effects of human impact on coral reefs
- Impact Cards **(attached below)**

INSTRUCTIONS

Set up the Jenga game normally. Print out the Impact Cards **(attached below)** and cut them, stacking them face-down in a single pile after shuffling them thoroughly. Each game card represents a positive or negative impact on the reef, marked by a (+) or (-) sign. Players will choose one card each when it is their turn. Based on the card, players will remove blocks from different parts of the Jenga tower. **All positive impact cards remove blocks from the top**, making the tower shorter and more stable. **All negative cards remove blocks from a row at least two beneath the top**, threatening the integrity and stability of the tower so it might eventually collapse.

Having about twice the amount of negative impact cards as positive impact cards ensures long gameplay while still creating a challenge. Cards can be specified to your area. The number of blocks to remove should reflect the level of impact. For example, the more impactful a factor is, the more blocks would be removed, using a maximum of 3 blocks at one time.

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IMPACT CARDS SET 1

The entire shoreline of St. Maarten becomes a protected marine preserve.
Take 3 blocks off the top (+)

Wave and solar power infrastructure is established in SXM, reducing oil dependency.
Take 3 blocks off the top

Plastic production and usage is legally restricted worldwide by governments.
Take 3 blocks off the top (+)

The majority of seafood sold in St. Maarten is sourced from small-scale, sustainable local fisheries.
Take 3 blocks off the top (+)

All shoreline residents replace their white outdoor lights with red bulbs. Sea turtles return to the area for nesting en masse.
Take 3 blocks off the top (+)

ReGreening SXM plants many native mangroves along the Simpson Bay Lagoon.
Take 3 blocks off the top (+)

The Nature Foundation receives funding for Coral Week to educate local children about the reef.
Take 2 blocks off the top (+)

Community organisations put together a beach clean up every week.
Take 2 blocks off the top (+)

Intellireefs uses St. Maarten as their pilot program for their new coral restoration program.
Take 2 blocks off the top (+)

A new treatment for a human disease is discovered on a coral reef, prompting protection and restoration of the reef.
Take 2 blocks off the top (+)

Residents successfully petition against a new beach bar on the vegetation line.
Take 2 blocks off the top (+)

A new species of fish critical to managing algae is discovered on a reef.
Take 2 blocks off the top (+)

Tour boats switch to reusable cups and do not offer straws.
Take 1 block off the top (+)

Students use the Literatti app to keep track of trash they collect during clean-ups.
Take 1 block off the top (+)

Agriculturalists and gardeners switch to composting instead of artificial fertilizers.
Take 1 block off the top (+)

Caribbean Cinemas shows a film about coral reefs, increasing public awareness and interest.
Take 1 block off the top (+)

An Eco Tour is established to teach tourists about how to protect the environment.
Take 1 block off the top (+)

Local businesses require shoppers to bring their own reusable bags.
Take 1 block off the top (+)

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IMPACT CARDS SET 2

A contagious coral disease spread from other areas arrives in St. Maarten's reefs.
Remove 3 blocks (-)

The plastic ban is postponed by St. Maarten Parliament.
Remove 3 blocks (-)

Rising temperatures as a result of climate change warm St. Maarten's waters.
Remove 3 blocks (-)

A large oil spill from a power facility goes unaddressed and remains in the water
Remove 3 blocks (-)

A Category 4 hurricane passes St. Maarten and causes significant damage to the reef.
Remove 3 blocks (-)

A commercial fishing vessel overfishes offshore, decimating the snapper population.
Remove 3 blocks (-)

A new pet store removes coral and fish from reefs to sell for aquariums.
Remove 2 blocks (-)

A mega yacht accidentally runs into a shallow reef, destroying the coral.
Remove 2 blocks (-)

A large resort is allowed to build directly on the beach, offshore from a reef.
Remove 2 blocks (-)

Reef toxic chemicals are not banned. The majority of tourists use sunscreen with Oxybenzone.
Remove 2 blocks (-)

Every year, sargassum collects on Guana Bay, and sea turtles are unable to come onshore to lay their eggs.
Remove 2 blocks (-)

Sediment from dredging in Simpson Bay for a new marina smothers corals.
Remove 2 blocks (-)

An inexperienced diver crushes a large coral head with their fins.
Remove 1 block (-)

A resident's septic tank overflows and the waste runs into Simpson Bay.
Remove 1 block (-)

Garbage bins on Mullet Beach overflow, causing people to dump their trash in the sand.
Remove 1 block (-)

An abandoned net catches on a coral formation and traps marine life.
Remove 1 block (-)

Residents use pesticides to clear weeds in their garden. The chemicals wash into the water in Point Blanche.
Remove 1 block (-)

A sailor ties their boat to some mangroves as a storm approaches St. Maarten.
Remove 1 block (-)

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IMPACT CARDS SET 3 -

Make your own!

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