Strand: **8.4**	Standard: **8.4.2 & 8.4.3**	Episode 3	**Big Idea:** Per capita consumption affects the availability of natural resources.

Title: Natural resources	**Time:** 20 mins	CCCs: Patterns	Practices: **Developing and using models** (mental model)

Episode Snapshot

Students will develop their own **mental model** (description) of what what a renewable resource and a nonrenewable resource is . Student groups will share their models/definitions and come up a common explanation as a class.
Students will group their sticky notes into renewable and nonrenewable categories. They will define the pattern between renewable resources and nonrenewable resources
The class will create a master list of renewable and nonrenewable resources. Students will have a discussion of how they think this may affect the environment.

Gather

Have students in a group of 4-5 students write as many examples as possible of natural resources on sticky notes.

Explain to the students that some resources are renewable and others are nonrenewable.

Have students develop their own **mental model** (description) of what what a renewable resource and a nonrenewable resource is (without looking it up). Have student groups share their definitions and come up with a common definition as a class. Have students look up the actual definition of the terms and decide if they need to make any changes to their **model** (description).

Reason

Then have students put their sticky notes into renewable and nonrenewable categories. Ask them to define the pattern between renewable resources and nonrenewable resources. Does the idea of the patterns they came up with already fit into their **model** of the terms or do they need to add the idea to their descriptions?

Communicate

Then as a class, come back together to put together a master list of renewable and nonrenewable resources. Ask students how they think the use of these resources might affect the environment.

Have the students think back to the phenomenon. Show them the pictures again. Do any of them have a connection to a usage of a resource? Help the students identify the resource being used in each of the situations.

Assessment: Given resources and where they are found students are able to categorize them as renewable and nonrenewable resources *If you completed the mindmap from 8.4.1 episode 2 you can give it to the students and have them now try to label the natural resources as renewable or nonrenewable as their assessment.*	**Materials, resources, handouts, etc:** Sticky notes