**The World We Want Self-Design**

**LESSON PLAN**

**Day 1**

**Grade Level:** Pre – K

**Subject:** Mathematics

**Theme/Topic:** Making 10

*D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.*

K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings (Drawings need not show details, but should show the mathematics in the problem.(This applies wherever drawings are mentioned in the Standards.)), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).

K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

K.OA.5 Fluently add and subtract within 5.

**Student Outcomes:** Students will be able to utilize natural objects to construct and deconstruct 10

**Required Materials:**

1. A basket for each student
2. A collection of 10 of the same type of natural material (i.e. 10 pinecones, 10 acorns)/student
3. Large poster paper/ for teacher
4. Marker/ for teacher
5. Small stick for each student

**Agenda:** This will be the major lesson in a typical outdoor forest school day from 9am – 1:00pm

**Warm Up:** Yesterday we practiced marching on our walk while counting to 10 by 1’s, by 2’s and by 5’s. Today we will continue working with 10 by discovery what groups of objects when combined together make 10.

**Anticipatory Set:**

**Teacher:“**Today we are chipmunks! Fuzzy, quick, little chipmunks! And what do chipmunks like to do?” **Students:**“Eat!”

**Teacher:** “And what do they eat?”

**Students:**“Seeds!”

**Teacher:** “And to eat seeds they must collect them! So we must collect them today too.

**Direct Instruction:** As we take our morning walk lets be collectors too! Lets each grab our baskets and collect 10 pinecones or acorns or pebbles or whatever you would like to work with today.

* Model what is looks like to gather 10 similar items counting out each one you pick up
* Model laying out the 10 items in a row
* Model laying a stick in between two pinecones and counting the pinecones on either side.
* Model reporting to the chart to record your groupings (i.e. 6 + 4 = 10)

**Guided Practice:** Students team up with a partner to lay out one students 10 items. They count them out together making sure there are 10 to begin. They take turns placing the stick grouping the pinecones into two group. Together they report back with the two groups to the teacher at the easel and record their findings. Repeat until collectively the class has recorded all groupings that make 10.

**Closure: “**Class it appears we have recorded many groupings that make 10. Take a moment to study the chart and see what you notice and if we can see any patterns. Share a noticing with your partner. “ Suns” start. “Moons” go next. Let’s go around the room and share our noticings.

**Independent Practice:**  “Now each of you lay out your pinecones and group them in your favorite way. Let’s share out our equation that make 10.

**Assessement and Follow Up:**  Repeat the independent practice for individual assessment by a teacher.