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| POPULATION | 3.20.2019 |

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| Subject |  | Overview |
| |  | | --- | | Mathematics | | Prepared By | | [Instructor Name] | | Grade Level | | 5 | |  | This lesson plan covers teaching content for;   1. Population 2. Comparing of population 3. Counting in thousands and millions in population studies |

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| Materials Required -Population Counter  -200 paper cups  -Blindfold |
| Additional Resources  * <https://www.sadlier.com/school/sadlier-math-blog/a-place-value-activity-that-compares-populations-grades-5-8> * <https://www.khanacademy.org/science/high-school-biology/hs-ecology/hs-population-ecology/a/population-size-density-and-dispersal> * <https://www.nationalgeographic.org/activity/introduction-population/> * <http://www.cpalms.org/Public/PreviewResourceLesson/Preview/152046> * <https://www.educationworld.com/a_lesson/02/lp287-03.shtml> * <https://www.educationworld.com/a_lesson/lesson173.shtml> |
| Additional Notes |

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| **Objectives** Students should be able to;   1. Define Population 2. Compare populations 3. Count in thousands and millions in population studies |  | **Activity Starter/Instruction**Introduce the term population. Tell pupils that population is the whole number of people living in an area, such as a town or city.  1. Ask: What happens when more people live in the same amount of space? Provide pupils with the following example: In the middle of the school year, many more pupils join their classroom. Ask: What changes would we have to make? Encourage pupils to think about where new students would sit.   **Guided Practice**  **Day 2/ Lesson 2: 15 Mins**   1. Capture their imaginations by embarking on an exciting investigation in class 2. Ask pupils to find out how many people live in the whole world with the help of a population counter. 3. If possible, hide the surrounding text and ask pupils to guess what the counter is showing. Take a note of the number at the start of discussions and at the end, or check the counter each morning for a week. The rate at which it changes might surprise young demographers. |  | **Teacher Guide**Day 1/Lesson 1: 15 Mins  1. Play a guessing game in class, allow pupils to estimate how many people live in their street or attend their school. 2. Can they tell the population of their village, town or city? You will find some useful figures here. Ask your class to imagine what 100, 10,000 or 1 million people would look like as a crowd.  Guided Practice **Day 3/ Lesson 3: 20mins**   1. Prior to this activity, label the bottom of each cup to represent a prey animal as follows:   80 cups marked S (squirrel = 1kg)  60 cups marked as R (rabbit = 2kg)  36 cups marked P (porcupine = 7.5kg)  22 cups marked B (beaver = 20kg)  2 cups marked D (deer = 75kg)  Set the cups out around the classroom so that the bottom is facing up, showing students the letters indicating what type of prey the cup represents. This activity could also be done in an outdoor space.   1. Write what each cup represents, the animal and the weight, on the board so the students will know what they’re hunting. 2. When ready to begin the simulation, indicate the area where you have set out the cups, and say, ‘This is the habitat of a population of panthers and each of you represents one panther. Right now you’ll each try to find food in this habitat to survive for about a month, 50kg’ 3. Select one student from the class and explain, ‘This panther has been injured by tackling a big buck and now has a broken leg so he/she will have to hunt on one leg.’ Tell the pupil to hunt on one leg. Select another pupil and say, ‘This panther is blind due to an injury caused by a porcupine.’ Give the pupil a scarf or bandana to use as a blindfold. 4. Select a third pupil and explain, ‘This panther is a female with two cubs and each cub needs 25kg of food to live, so if they are all going to survive, she needs to find 100kg of food.’ 5. Indicate the chart on the board and read it aloud to be sure the pupils understand what they’re looking for. Ask each pupil to set up a panther den by selecting a small area where they will bring their prey. 6. When all the paper cups have been gathered, the hunting is over. Each pupil should return to his or her den to calculate the quantity of food he or she gathered. Then, discuss with the class how it relates to humans. |
|  |  | **Assessment Activity** Pupils need to know that population of different places varies. |  | **Assessment Activity** Assess if pupils can;   1. Define Population 2. Count in thousands and millions of population study |
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|  |  | Summary Ask volunteers to share their answer to population of either their classes or countries |  |  |
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