

Why do you need a sample? When you are collecting data, it is very difficult to ask *every* person in that population. So you want to be able to ask a smaller amount of people and then make a generalization about your findings that applies to the entire population.

What makes a good sample?

- The larger the sample, the better
- It has to try to represent the population that is being studied
- The sample should not have bias

What is a random sample? A sample set up so that each member of the target population has an *equally* likely chance of occurring

Look at the following situation and determine if it is a *good* random sample:

- 1) Your teacher is going to give a prize to 10 students in the class. Your teacher puts every students name into a basket and pulls out one name at a time.
- 2) Your school cafeteria is going to make some changes to the menu. They ask the first 150 students in the cafeteria what they would change about the menu.
- 3) Your school is going to get some new physical education equipment. They ask all of the boys in each class what equipment they would prefer.
- 4) Your PTA is going to pay for a cultural arts assembly. They ask 200 randomly selected students in the hallways all over the building.
- 5) Your school is going to have a fundraiser. They ask 5 random students what events they would like to have in order to raise money for the school.



**Pause the video and try these on your own!
Then press play and check your answers with a color pen**

Look at the following situation and determine if it is a *good* random sample and tell why or why not.

- 1) Your teacher is going to give a prize to 10 students in the class. Your teacher puts every girls name into a basket and pulls out one name at a time.
- 2) Your school cafeteria is going to make some changes to the menu. They ask 20 students randomly selected from each grade level what they would change about the menu.
- 3) Your school is going to get some new basketball equipment. They randomly select 15 members of the baseball and soccer team to get their opinion.
- 4) Your PTA is going to pay for a cultural arts assembly. They put all 10 of the options in a bag and pull out one.
- 5) Your school is going to have a fundraiser. They ask 5 girls and 5 boys from each class to see what events they would like to have in order to raise money for the school.