The Sutton Academy

Knowledge Rich Curriculum Plan

Course/Unit

Lesson/Learning Sequence	Intended Knowledge: *Students will know that…*	Tiered Vocabulary	Prior Knowledge: *In order to know this students, need to already know that…*	Assessment
LO: To learn how to learn how to formulate a hypothesis test.	• *Students will know that the H_0, is the hypothesis that you assume to be correct.* • *Students will know that the alternative hypothesis, H_1, tells you about the parameter if you assumption is shown to be wrong.* • *Students will know that to carry out a hypothesis test you assume the null hypothesis is true, then consider how likely the observed value of the test statistic was to occur. If this likelihood is less than a given threshold, called the significance level of the test, then you reject the null hypothesis.* • *Students will know how to model a hypothesis test.*	Hypothesis – A statement made about the value of a population parameter. Test statistic – the result of the experiment or the statistic that is calculated from the sample.	Students will need to know what a binomial distribution is.	
Lo : To learn how to find critical values.	• *Students will know how to use the binomial distribution tables to find critical regions.* • *Students will know how to use the calculator to find critical regions.* • *Students will know that the critical value is the first value to fall inside the critical region.* • *Students will know that the actual significance level of a hypothesis test is the probability of incorrectly rejecting the null hypothesis.* • *Students will know that for a two-tailed test there are two critical regions, one at each end of the distribution.* • *Students will know to half the probability of a two tailed test.* • *Students will know how to find critical regions of a two tailed test.*	Critical region – Is a region of the probability distribution which, if the test stastic falls within it, would cause you to reject the null hypothesis,	Students will need to know what a binomial distribution is.	
LO : To learn how to carry out a one-tailed hypothesis test.	• *Students will that to carry out a one-tailed hypothesis test you need to:* - *Formulate a model for the test statistic* - *Identify suitable null and alternative hypotheses* - *Calculate the probability of the test statistic taking the observed value (higher/lower), assuming the null hypothesis is true.* - *Compare this to the significance level.* - *Write a conclusion in the context of the question.* • *Students will know how to carry out both types of one tailed test.* • *Students will know to carry out hypothesis tests for real life situations.*		Students will need to know how to set up a hypothesis test. Students will need to know how to find critical regions.	
LO: To learn how to To learn how to carry out a two-tailed hypothesis test.	• *Students will that to carry out a one-tailed hypothesis test you need to:* - *Formulate a model for the test statistic* - *Identify suitable null and alternative hypotheses* - *Halve the significance level at the end you are testing.* - *Calculate the probability of the test statistic taking the observed value (higher/lower), assuming the null hypothesis is true.* - *Compare this to the significance level.* - *Write a conclusion in the context of the question.* • *Students will know to carry out two-tailed hypothesis tests for real life situations.*		*Students will need to know how to carry out a one-tailed hypothesis test.*	

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