**CLASS SET – AVOID MARKING ON THIS PAPER!!!!**

**Testable Question and Hypothesis Writing Guided Practice**

**Directions: For each testable question, identify the Independent (manipulated) and dependent (responding) variables. Then write a possible hypothesis using the “If\_\_\_/then\_\_\_” format.**

**Example 1:**

**Testable Question: "How does amount of study time affect test scores?”**

**Independent Variable: study time**

**Dependent Variable: test scores**

**Hypothesis: If someone spends more time studying, then their test scores will improve.**

**For practice you and your partner/group will rotate around the classroom identifying Independent, dependent variables and creating hypotheses. Remember to stay on task with your assigned group.**

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***How does the location of an Earthquake affect destruction?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***How does city growth affect wildlife population?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***How does mold growth affect your health?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***How does the air pollution affect plant growth?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***How does rainy weather affect a person’s mood?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Does frozen water have more volume than liquid water?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Which brand of paper towels absorbs the most liquid?***

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

**Testable Question and Hypothesis Writing Guided Practice**

**For each topic below, write a *TESTABLE QUESTION* using the “How does \_\_\_\_\_\_\_ affect \_\_\_\_\_\_\_\_\_\_\_?” format. Remember to first identify the independent (manipulated) and dependent (responding) variables before using the testable question format.**

**When reviewing the topic… determine the variables before developing a testable question. Below are two examples… keep in mind, all of the topics in this practice can be turned into ‘Testable Questions’.**

**Example 1:**

**Topic: "Rainy winters"**

**Possible variables**

**Manipulated variables: *time of year, temperature, or amount of sunlight***

**Responding variables: *rainfall levels (the focus of the topic is rainy winters)***

**Possible questions: "How does time of year affect rainfall levels?"**

**"How does temperature affect rainfall levels?"**

**"How does amount of sunlight affect rainfall levels?"**

**Example 2:**

**Topic: "Seahawks"**

**Possible variables**

**Manipulated variable: *month, rain, temperature***

**Responding variable: *win rate or punt distance***

**Possible questions: "How does the month affect win rate?**

**"How does rain affect quarterback pass percentage affect win rate?"**

**"How does air temperature affect punt distance?"**

**For practice write a testable question for each topic. Be very specific and use the format “How does \_\_\_\_\_ affect \_\_\_\_\_\_\_\_ ?” When creating a question you will be narrowing down the topic to “testable variables”. Think about what variables you will be testing before writing the question. Yes! This practice is meant to be hard… you will need to apply your critical thinking skills**

***Topic: Earthquake destruction***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: Wildlife in the city***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: Mold growing in your home***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: Air pollution***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: Rain & a person’s mood***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: State of matter & volume***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**

***Topic: paper towel absorption***

**Testable Question:**

**Independent Variable:**

**Dependent Variable:**

**Hypothesis:**