Lesson Plan Template

# Breakthrough Denver

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| **Getting Yourself Ready** | | | | |
| **Materials**:  Website: <http://sunshine.chpc.utah.edu/javalabs/java12/fnm/act1/lab.htm> | | **Your Preparation**: | | **Agenda (w/times)**:  Do Now(15 minutes)  Teaching(10 minutes)  Practice(20 minutes)  Homework(5 minutes) |
| **Getting Your Students Ready** | | | | |
| \***Do Now**: Practice calculating speed by completing the interactive lab on the screen | | | | |
| **Objective**: Continue practicing writing a Hypothesis  Learn Independent and Dependent variables | | | **Proving behavior**: Identify the independent and dependent variable | |
| **Purpose**: Understanding dependent and independent variables and being able create an experiment is an important science skill | | | | |
| **Teaching** | | | | |
| Step 1: Introduce variables | Say: In order to create a successful experiment you have to think about what variables affect the lab. A variable is any factor, trait, or condition that can exist in differing amounts or types  See: Definition on the Science Word Wall  \*Do: Repeat the definition of variables | | | |
| Step 2: Define Independent Variable | Say: There are three kinds of variables; Independent, Dependent, and Controlled. The first kind of a variable is the Independent Variable- the one that is changed by the scientist, only one independent variable in an experiment  See: Definition on the Science Word Wall  \*Do: Repeat the definition of independent variables | | | |
| Step 3: Define Dependent variable | Say: The next kind of variables are dependent variables; dependent variables are the ones that change based off of the changes of the independent variables  See: Definition on the Science Word Wall  \*Do: Repeat the definition | | | |
| Step 4: | Say:  See:  \*Do: | | | |
| Step 5: | Say:  See:  \*Do: | | | |
| Step 6: | Say:  See:  \*Do: | | | |
| **Practice** | | | | |
| \***Structured Practice** (3-4 additional examples led by teacher with gradually quickening pace, helping students approach automaticity by manipulating time, materials, and group size) | | | | |
| Time: 5 minutes  Materials:  Group Size: Individual | Example 1  Use the question that the class made a hypothesis for the day before and identify the independent variable | | | |
| Time: 5 minutes  Materials:  Group Size: Individual | Example 2  Use the question that the class made a hypothesis for the day before and identify the dependent variable | | | |
| Time:  Materials:  Group Size: | Example 3 | | | |
| Time:  Materials:  Group Size: | Example 4 | | | |
| \***Guided Practice** (the proving behavior of the objective monitored by the teacher) | | | | |
| Assignment: (from proving behavior)  Find the independent and dependent variable in the Independent vs. Dependent variable SpongeBob sheet | | | Criteria for Mastery:  Get three of the examples right | |
| Independent Practice (Homework) | | | | |
| Explain Homework:  For the Questions and Hypotheses that you wrote for homework the day before come up with an experiment with independent and dependent variables | | | | |
| **Closure** | | | | |
| Explain Closure: | | | | |

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| **VIP** | | |
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