Lesson Plan Template

# Breakthrough Denver

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| **Getting Yourself Ready** | | | | |
| **Materials**:  “How Penicillin was Discovered”  Creating Hypothesis worksheet | | **Your Preparation**:  Prepare a Hypothesis writing VIP | | **Agenda (w/times)**:  Do Now(10 minutes)  Teaching(20minutes)  Practice(15minutes)  Homework(5 minutes) |
| **Getting Your Students Ready** | | | | |
| \***Do Now**:  Have students read and answer the questions on the “How Penicillin Was Discovered” worksheet. | | | | |
| **Objective**: Introduce students to the “If…Then…” method of writing a hypothesis.  What will students be able to do to by the end of classs? | | | **Proving behavior**: Write a hypothesis using the “If…Then…” method  Okay, will they be able to do this given a scientific question? | |
| **Purpose**: Learning how to write a hypothesis is essential to the scientific process | | | | |
| **Teaching** | | | | |
| Step 1: Start with a question | Say: Science is about answering questions. Science would be no where if people hadn’t asked questions and gone through the scientific method in order find out answers to these questions. See: The Question on the Board: Which material makes the best paper airplanes; wax paper, construction paper or tissue paper?  \*Do: Have students come up with other some scientific questions  Good step and model. Try and guide this DO. Everyone come up with a scientific question about video games. I might just pick two types of paper to simplify as well. | | | |
| Step 2: Come up with possible outcomes | Say: The first step to answering scientific questions is coming up with possible outcomes.  See: Write down the possible outcomes that students come up with  \*Do: Have students brainstorm the possible outcomes for the experiment.  Which experiment? The type of paper one. This is a place for you to describe your thinking to the students. Hmmm. I know that wax paper is really solid and I think it is going to deflect air best, so I think it will go the farthest. Then the outcome I think will happen is that the wax paper will go farther than tissue paper.  Then you might make a small change to this and have them try it. Like Which will fly farther, lined paper or laminated paper. | | | |
| Step 3: Write a Hypothesis with the “If…Then…” method | Say: Now that we’ve came up with our idea of what the outcome will be then we will have to  See: Write down my own hypothesis with the “If…Then…” method  If my possible outcome is true, then this will happen.  \*Do: Have each kid write down their own hypothesis with the “If…Then…” method | | | |
| 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: 5minutes  Materials:  Group Size: Individual | Example 1  Write a Hypothesis for one of the Questions made earlier | | | |
| Time:  Materials:  Group Size: | Example 2 | | | |
| 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)  Write a Hypotheses for the Questions on the worksheet in the “If…Then…” structure | | | Criteria for Mastery:  A hypothesis with a clear “If…Then…” statement | |
| Independent Practice (Homework) | | | | |
| Explain Homework:  Write 5 Questions and Hypotheses about any science topic. | | | | |
| **Closure** | | | | |
| Explain Closure:  Write down your homework and get Rap Sheet signed | | | | |

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| **VIP** | | |
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