Lesson Plan Template

# Breakthrough Denver

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| **Getting Yourself Ready** | | | | |
| **Materials**:  Air trolleys, thin string/wire, tape, three sets of chairs. | | **Your Preparation**:  Prepare the air-trolley lab | | **Agenda (w/times)**:  Do Now(5mins)  Purpose and Objective(2mins)  Lab Procedures (5mins)  Lab(25mins)  Review Lab(13)  Homework (5mins) |
| **Getting Your Students Ready** | | | | |
| \***Do Now**: Review the equation r=d/∆t  Answer the question | | | | |
| **Objective**: Today you will be doing a lab and applying all of the concepts about rate, distance and time that we’ve been learning | | | **Proving behavior**: completing an exit slip that asks how distance, time, rate all relate with each other | |
| **Purpose**: We are doing this in order to help with measurement skills, and to further apply the ideas of r=d/∆t in order to start to connect this idea with independent and dependent variables. | | | | |
| **Teaching** | | | | |
| Step 1: Break Class up into groups of three-four | Say:  See:  \*Do: | | | |
| Step 2: Have students move the tables and run the line between chairs | Say:  See:  \*Do: | | | |
| Step 3: Explain how the trolleys will work | Say: In order to have you better understand rate, distance and motion we are going to do a lab. We are going to use air trolleys and measure the distance and time and calculate the rate at which they move.  See: Watch me demonstrate how the air-trolleys move along the wire and how and when I start the stop watch.  \*Do: Have the students tell me as a group how the trolleys work | | | |
| Step 4: Do the experiment | Say: Now it’s your turn to run the air trolleys. Remember our lab rules.  See: remember the see from the last step  \*Do: Run the air-trolleys a few times and have them fill out a data table recording the time and the distance. | | | |
| 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: 25minutes  Materials: air trolley lab  Group Size: 3-4 | Example 1 Let the students mainly do the lab by themselves. Go around and help here and there but mainly let them do this experiment on their own. | | | |
| 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) completing an exit slip that asks how distance, time, rate all relate with each other | | | Criteria for Mastery:  Correctly relating time, distance and rate to the lab we just finished | |
| Independent Practice (Homework) | | | | |
| Explain Homework:  Give them questions about altering things about the air-trolley experiment in order for them to start to relate the experiment with our next topic tomorrow independent variables (maybe dependent variables.) | | | | |
| **Closure** | | | | |
| Explain Closure: | | | | |

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| **VIP** | | |
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