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## Smoking Lesson Plan Using Stella

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# Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

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| Name: John Palo  |
| Grade level(s)/Subject taught: 10 <sup>th</sup> grade math           |
| Objectives: to be able to interpret graphs and tables, problem solve |

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately ½ page for the teacher role, ½ page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. Write the Mathematical Concept or “key idea” that modeling will be used to teach: (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)

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|--|
| Students use mathematical representation to provide a means of presenting and interpreting mathematical information and relationships. |
|--|

"...a rich **one-page, single-spaced**, description or a *vision* of your best thinking..."

Prompts:

1. How will you assess the prior knowledge of the student?
2. How will you begin the lesson?
3. What are the teacher and students doing every 5-10 minutes? (Teacher Actions and Student Actions)
4. How will you assess the learning for the lesson?

Using Stella I plan on having my students...

First 10 minutes of class I will have students assess prior knowledge by talking about smoking in general. I would have them fill out a quick bellwork type of question sheet and then discuss the questions and answers as a class. Questions like do they know friends or family who smoke, how much is a pack of cigarettes, what diseases are associated with smoking, what are the disadvantages to smoking, are there any advantages to smoking, etc. These type of questions will help the students to get a sense of what they think about smoking and what their beliefs are about smoking.

The next 10 minutes of class I will allow the students to play around with the Stella model and let them begin to come to some conclusions about the health risks and cost of smoking. I will encourage students to interact with each other and discuss their findings and explain to each other their ideas.

The remaining 25 minutes I will hand out the worksheet on the Stella model and have the students work individually on the handout. By having them work individually on the worksheet, I can really get a sense of who understands the concepts of interpreting tables and graphs and who doesn't. By having the students input their values and creating graphs based on these values, it will insure that they are doing their own work and not copying each other.

I will assess the students by monitoring them during the 10 minutes they're allowed to interact with each other and by grading the worksheet. Ultimately, I will use the scoring rubric. I will assume the students have used Stella before and even if they haven't, a 5 minute explanation on how to run the model should be enough to get the students going. Since they will only be using the user interface level, mistakes should be minimal in running the model. This lesson would tie in nicely to a separate lesson perhaps in science class or health class when discussing smoking and its effects.



