

## DESIGNING LEARNING TASKS

Name of Curriculum: Living by Chemistry

### STEP 1: IDENTIFY OPPORTUNITIES IN THE CURRICULUM

Lesson and Page Numbers:

Inv. II lesson 12

What is the learning goal?

Students understand that 3-D structure is important in determining the properties of a ~~material~~ molecule.

What data will students either be given or collect to analyze?

Students will smell different molecules + be given their 3-D structure.

What scientific principle will students use to link their claim and evidence?

3-D structure is important in determining properties

(i.e. ball-shaped molecules smell like camphor).



## **STEP 2: DESIGN COMPLEXITY OF THE LEARNING TASK**

*For each of the following characteristics consider how simple or complex you want the learning task to be depending on the needs of your students.*

**What question will you ask students?**

How is the shape of a molecular compound related to its smell?

**What specific data will you either provide students or have students collect?**

I will provide the vials w/ the smells and the 3-D structure for each molecule. Depending on student investigation, I will provide the basic shapes (stringy/linear, pan, ball)

**How much data will you have students analyze?**

The students will characterize the smell and analyze the structures to determine ~~what~~ the effect of shape on smell.

**What variation of the framework do you want students to include in their response?**

*For example – complexity of the evidence, complexity of reasoning and inclusion of rebuttal*

I will use variation 1 because this structure is new to the students.



### STEP 3: CREATE CLASSROOM SUPPORTS

Do you want to include any type of visual representation in your classroom? If yes, describe or sketch the representation.

I will post strategies on the wall to help.

- Claim
- Evidence
- Reasoning

Do you want to provide students with curricular scaffolds? If yes, draft the scaffolds below.

*Consider – content specific, generic or combination AND level of detail to include*

~~N/A~~ N/A

~~we will provide a chart~~

After the writing, as a review, we will organize our thoughts, but not before writing (I want to see what students can write from their own learning).