

Tri Mind Homework Assignment -

○ **KUD Objectives**

- Students will explain the concept of “like dissolves like” using either a flow chart, analogy w/picture or anecdote.
- Students will use the principle of like dissolved like to identify if substances will dissolve in each other.

○ **Outline of learning activities –**

Tri – mind homework assignment in solutions unit on like dissolves like.

○ **Highlight on DI component (groupings of students, how students were placed in different groups, how the activity was explained, and a description of the DI activity itself)**

Students choose the groups based upon what they felt best described them. Since they were working individually on this assignment for homework I had them do a “gallery walk” the next day. They had to pick one example from a different group and explain to a neighbor how the other example had helped their understanding as well.

○ **Lesson Assessment (formative & summative)**

Homework is graded for completion in my class so students received credit as long as it was neat and finished. However formatively it was used by me to get a sense of their level of understanding and I listened in on their conversations with each other regarding the work of other students.

○ **Reflection on DI learning activity (what went well, challenges, thoughts for future improvement, etc.)**

- Formatively this was one of the fastest ways I ever had to tell whether students were on the right track
- I was shocked how many of my students choose the option least appealing to me!! They all wanted to be creative!
- Need to revise the task for the practical students – they had a tough time even when they understood to content, too vague
- Adding the drawing component can be somewhat of a distraction – spent more time drawing than on creating a good metaphor
- Really liked the element of choice – but b/c it was the first time many of them got caught up in wanting to do what their friends did
- Also liked the self-reflection aspect of it – students interested in their own personalities
- Gallery walk was critical in exposing students to other ideas and helping them think outside their own box
- Hard to do with very small classes – nice to be able to show work from all periods

Air Pollution Jigsaw

- **KUD Objectives**

Students will know the major chemicals that contribute to air pollution.

Students can explain why CO₂ is a critical part of our atmosphere and why too much of it is a problem.

Students can explain how the hole in the ozone was created, why it is only over Antarctica and how it is going away

Students know that major industries that contribute to acid rain and the types of damage it causes

Students know the major contributors to smog and the potential health hazards it causes.

- **Outline of learning activities**

Students were put in groups to become “experts” on one major air pollution issue using a packet of info given by me and the textbook. They worked in class to fill in a portion of their outline on that topic. Then the next day in class, new groups were formed with one member from each expert group. Students shared information with each other about their type of pollution.

At the end of the day I asked students about topics that they were not experts in to get a general sense of where everyone was and to clarify potentially confusing ideas.

- **Highlight on DI component (groupings of students, how students were placed in different groups, how the activity was explained, and a description of the DI activity itself)**

The original groups were formed based on a combination of personal preference and ability. I listed the topics on the board and had students write on a post it their interest rankings. They could also indicate that they didn’t care which turned out to be really important in being able to make groups (smog was not a popular topic). Ozone was by far the most complicated so I tried to place my strongest students in that group while still paying attention to interest. However if a weaker student really wanted that topic I sometimes put them in the group knowing that the stronger students would carry them along.

The groups on the second day were created using playing cards to give the illusion of randomness (in some classes it was random but in others I was aware of the order of the cards).

- **Lesson Assessment (formative & summative)**

Questions on review sheet and summative exam, oral questioning at the end of class, I also wandered from group to group on both days to make sure students were getting out of the articles what I’d hoped and to explain nuances (particularly important in the ozone group)

- **Reflection on DI learning activity (what went well, challenges, thoughts for future improvement, etc.)**

So great not to lecture on this stuff for two days!! Students were generally engaged though it’s hard to get them to “explain” on day two rather than just “tell”. The presenter often rushed and then got frustrated that other students couldn’t keep up.

Would like to change some of my summative exam questions to be deeper and have more emphasis on what really matters but this particular exam is sooo long that they already were pressed for time.

Easy to find interest info – often looks for websites designed for children. Also easy to edit the copied info to add stuff you want them to know and delete stuff they don’t need to know (shh don’t tell anyone that I do this).

Almost none of my students knew there is a hole in the ozone – be careful to make sure that they all realize it’s a figurative hole.