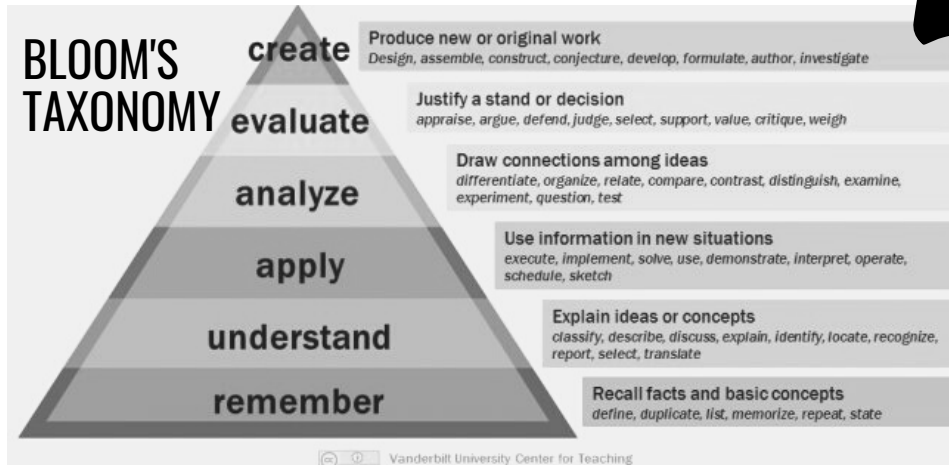


# SCIENCE SUGGESTIONS

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Bloom's taxonomy (below) is the hierarchy of types of knowing. The most basic type of knowing is remembering, while the highest level is creating new work. **Accomplishing higher levels require the lower levels - it is easier to apply knowledge if you can remember a fact.**



**RESEARCH IS THE  
CREATION OF  
NEW KNOWLEDGE**

All levels of this hierarchy are important.

**HOW DO I  
DO GOOD  
SCIENCE?**

- Ask questions.
- Use Google Scholar.
- Cite your evidence.
- Write it down.
- Follow the data.

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## SCIENCE IS HARD

When experiments fail:

- Take a break. Regroup & make a plan.
- Take a nap. Ask for help.
- Vent to someone. Try again.



**If you can't write, draw, or explain it, you don't know it yet.**

## IT IS COMMON TO STRUGGLE WITH FEEDBACK & ASKING FOR HELP

all questions are good questions!

### Guide to asking for help

### Guide to receiving feedback

1. Define the type of feedback you want.
2. Focus on the science, not you.
3. Consider if it is useful.
4. Imagine it comes from a good place.
5. Discuss feedback with others whose perspective you value.

### Guide to giving feedback

1. Ask what type of feedback they want.
2. Focus on the science, not them.
3. Consider if it is useful.
4. Deliver it from a good place.
5. Offer support, too.

1. Identify what you are asking for. (Advice? A listening ear? A protocol?)
2. Identify what information is required. (Data? Protocol? Paper?)
3. Present information & ask for what you need. (Here's the experiment goal. Here's my gel image. Here's what each lane contains. Can you give me advice?)