# AP Chemistry summer assignment for 2026-2027 school year

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*Things to do TODAY -*

1) Join the google classroom: code for all sections: y3cmj3ou
   https://classroom.google.com/c/ODY1MDI2NjMxMTUw?cjc=y3cmj3ou
2) Get your textbook from the bookroom
   Textbook: Chemistry A Molecular Approach (Tro) 5th edition

*Things to do after June 11-*

3) Check Google Classroom for textbook join codes
4) Follow the instructions to join the online textbook
5) Complete the textbook problems *online*.
6) Once you know your section, join the appropriate Google Classroom (this information will be posted to the stream as rosters get finalized).

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Welcome to AP Chemistry! AP Chemistry is a fast-paced college level course. In order for us to complete our curriculum in time for the AP test in early May, we will need to start learning new material on the very first day of school. It is essential that you take the summer work seriously so that you are not behind. Some of the textbook readings and problems that are assigned will be reviewed from the 1st year of chemistry, and some might be brand new to you. If this is your first year chemistry course it will ALL be brand new! **We will be spending a short amount of time reviewing this material but will go quickly. It's your responsibility to review/learn them on your own this summer.** There will be a summative assessment on this material within the first 2 weeks of school.

**DO NOT WAIT UNTIL THE LAST MINUTE**. You will benefit much more from doing a little bit throughout the summer and letting the concepts have time to sink in.

**Your summer assignment is to read, learn, and do practice problems for chapters 1-4 in our textbook** : "*Chemistry A Molecular Approach - 5th edition (Tro)*. You will get a physical textbook to take home over the summer and you will have access to a digital textbook (codes at the end of this doc)

Chapter 1: Matter, Measurement and Problem Solving (Suggested completion date: 7/5)

1) Read each section in the digital textbook. Watch the Key Concept videos, and answer the Conceptual Connection questions that appear in the middle of each section.
2) Complete all "For Practice" problems that appear at the end of some of the sections. The answers to these can be found in Appendix IV.
3) Take the "self assessment quiz" at the end of the chapter. Go back and review anything you missed.
4) Complete the following "Exercises" for Chapter 1 - then check your answers with the keys provided to you by your teacher.

   #37, 41, 43, 49, 55, 59, 68, 71, 73, 77, 81, 83, 85, 105, 139

Chapter 2: Atoms and Elements (Suggested completion date: 7/18)

1) Read each section in the digital textbook. Watch the Key Concept videos, and answer the Conceptual Connection questions that appear in the middle of each section. Watch any "interactive worked example" videos as well.
2) Complete all "For Practice" problems that appear at the end of some of the sections. The answers to these can be found in Appendix IV.
3) Take the "self assessment quiz" at the end of the chapter. Go back and review anything you missed.

4) Complete the following "Exercises" for Chapter 2 - then check your answers with the keys provided to you by your teacher.

#30, 37, 51, 53, 57, 60, 62, 63, 64, 66, 71, 75, 79, 83, 87, 95, 102, 126

*** special note for #63, 64, 66: the periodic table provided to you for AP chemistry has ONLY the symbols, atomic number and average atomic mass. Therefore, you MUST be able to recognize the elements by name or symbol. For example: If I ask you about Manganese, you must know that it's symbol is Mn in order to find it on the periodic table.*

*Here are the most important elements to know spend time learning these:*

Atomic #: 1-36 + 37, 38, 46, 47, 48, 50, 52, 53, 54, 55, 56, 78, 79, 80, 82, 87, 88

*You do NOT need to memorize the atomic number or average atomic mass. Just be able to match the element symbol with the name and vice versa.*

Chapter 3: Molecules and Compounds (Suggested completion date: 8/1)

1) Read each section in the digital textbook. **You should SKIP section 3.11 on organic compounds**. Watch the Key Concept videos, and answer the Conceptual Connection questions that appear in the middle of each section. Watch any "interactive worked example" videos as well.
2) Complete all "For Practice" problems that appear at the end of some of the sections. The answers to these can be found in Appendix IV.
3) Take the "self assessment quiz" at the end of the chapter. Go back and review anything you missed.
4) Complete the following "Exercises" for Chapter 3 - then check your answers with the keys provided to you by your teacher.

#23, 26, 29, 31, 33, 36, 40, 41, 50, 56, 59, 62, 67, 73, 76, 80, 90, 96, 98

Chapter 4: Chemical reactions and chemical quantities (Suggested completion date: 8/15)

** This is the last chapter, but THE MOST IMPORTANT! Everything we do all year in AP Chemistry is based on stoichiometry. Please go through this chapter carefully and be sure you fully comprehend the concepts and calculations.

1) Read each section in the digital textbook. Watch the Key Concept videos, and answer the Conceptual Connection questions that appear in the middle of each section. Watch any "interactive worked example" videos as well.
2) Complete all "For Practice" problems that appear at the end of some of the sections. The answers to these can be found in Appendix IV.
3) Take the "self assessment quiz" at the end of the chapter. Go back and review anything you missed.
4) Complete the following "Exercises" for Chapter 4- then check your answers with the keys provided to you by your teacher.

# 7, 15, 17, 23, 25, 27, 31, 33, 35, 37, 41, 43, 47, 52, 59, 61, 64, 76, 77

The following polyatomic ions will be frequently used throughout the course, so being familiar with them will prove helpful. While it is helpful for you to memorize these ions, it is not required. You do, however, need to be comfortable using them and writing chemical formulas for ionic compounds. Some commonly used polyatomic ions are below:

| hypo- (2 less O) | -ite (1 less O) | -ate | per- (1 more O) |
|---|---|---|---|
| | nitrite $NO_2^-$ | nitrate $NO_3^-$ | |
| | sulfite $SO_3^{2-}$ | sulfate $SO_4^{2-}$ | |
| | phosphite $PO_3^{3-}$ | phosphate $PO_4^{3-}$ | |
| hypochlorite $ClO^-$ | chlorite $ClO_2^-$ | chlorate $ClO_3^-$ | perchlorate $ClO_4^-$ |

| Odd Companions or No Companion | |
|---|---|
| hydroxide $OH^-$ | oxalate $C_2O_4^{2-}$ |
| cyanide $CN^-$ | cyanate $CNO^-$ |
| acetate $C_2H_3O_2^-$ | |
| carbonate $CO_3^{2-}$ | bicarbonate $HCO_3^-$ |
| chromate $CrO_4^{2-}$ | dichromate $Cr_2O_7^{2-}$ |
| permanganate $MnO_4^-$ | |
| peroxide $O_2^{2-}$ | |

| Cations |
|---|
| Ammonium $NH_4^+$ |
| hydronium $H_3O^+$ |

Joining Instructions by Teacher:

# J. Nuzzo - Joining Instructions

Section 1:

Section 2:

## P Gati - Joining Instructions

**Section 1: Odd Day: 1B (Mini) Even Day: Period 1:**

1. Go to https://mlm.pearson.com/enrollment/gati14834

2. Sign in with your Pearson student account or create your account.

3. Select any available access option, if asked.

    **» Enter access code :** SSSRCC-CHUBB-GULCH-MIDAS-TAPIR-MUTES

4. Select Go to my course.

5. Select AP Chemistry- Section 1 from My Courses.

If you contact Pearson Support, give them the course ID: gati14834

**To sign in later:**

1. Go to https://mlm.pearson.com

2. Sign in with the same Pearson account you used before.

3. Select AP Chemistry- Section 1 from My Courses.

**Section 2: Odd Day: 3A (Mini) Even Day: Period 3:**

To register for AP Chemistry- Section 2:

1. Go to https://mlm.pearson.com/enrollment/gati19322

2. Sign in with your Pearson student account or create your account.

3. Select any available access option, if asked.

    **» Enter access code :** SSSRCC-CHUBB-GULCH-MIDAS-TAPIR-MUTES

4. Select Go to my course.

5. Select AP Chemistry- Section 2 from My Courses.

If you contact Pearson Support, give them the course ID: gati19322

**To sign in later:**

1. Go to https://mlm.pearson.com

2. Sign in with the same Pearson account you used before.

3. Select AP Chemistry- Section 2 from My Courses.