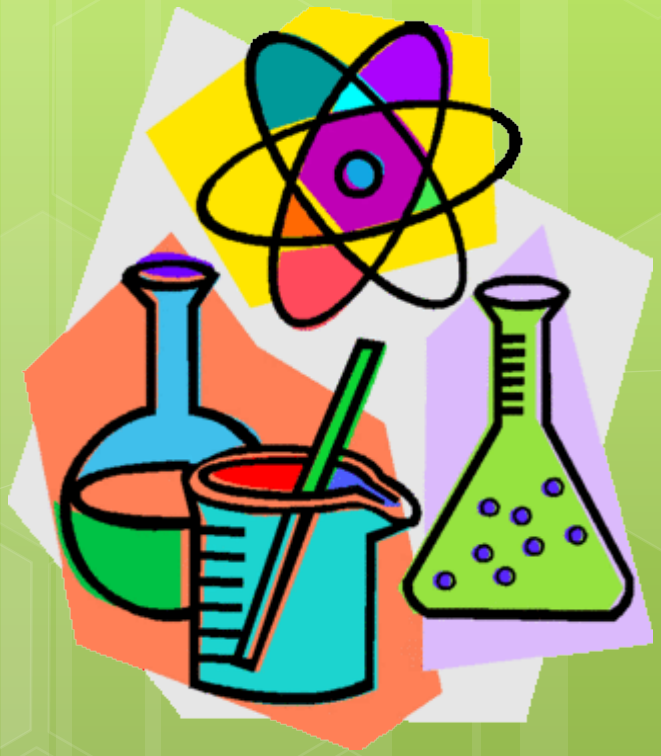

High School 4- Year Plan

Session 10 - Science

Keep in mind…..

- **All** students take Biology in 9th grade
- **4 Credits** of Science are **required** to earn any Endorsement
- **STEM** Endorsement (all options) **requires** Chemistry **and** Physics (or AP Physics I)
- **Multidisciplinary Studies 4x4** Endorsement **requires** Chemistry **and/or** Physics (or AP Physics I) ***(one or both)***

9th Grade

All students must take **Biology**

Choose level:

- **On-level**
- **K**
- **H**

10th Grade

- **Choose** from the following:
  - **IPC** (On-level)
  - **Chemistry** (On-level, K, or H)
  - **Physics** (On-level, K, or H)
  - **AP Physics I** *

*(must have completed Algebra II)

11th and/or 12th grade

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3rd or 4th credit options	Prerequisites	Information
Chemistry *(On-level, K, or H)*	Biology and Algebra I	Characteristics of matter; use of Periodic Table
Physics *(On-level, K, or H)*	Biology	Laws of motion & forces
Aquatic Science	Biology	Fresh water & marine aquatic systems
Astronomy	Completion or concurrent with 3rd science	Moon, stars, planets, space exploration
Earth and Space *(On-level, K, or H)*	Completion or concurrent with 3rd science	Earth's systems in space & time
Environmental Systems	Completion or concurrent with 3rd science	Native plants & animals, endangered species, disasters & events that affect the environment
AP Biology	Biology and Chemistry	Molecular biology, cellular processes, human genetics, plants & animals; ***college prep course***
AP Chemistry	Chemistry and Algebra II	In-depth study of chemistry; ***comparable to a first year college course***
AP Physics I	Biology and Algebra II	***May substitute for Physics*** Medical focus; ***the equivalent of a first semester college course but taught over a full year***
AP Physics II	AP Physics I and completion or concurrent with Precalculus	Medical focus; ***comparable to a second semester of college course***
AP Physics C	Physics K or AP Physics I and completion or concurrent enrollment in Calculus; 12th grade only	Engineering focus; principles of mechanics, electricity, & magnetism; ***the equivalent of calculus-based college physics for engineers & science majors***
AP Environmental Science	Biology and Chemistry	Identify & analyze natural and human-made environmental problems
Anatomy & Physiology *(On-level, K)*	Biology and Chemistry	Organ systems & physiology; dissection techniques; cause & effect of disease
Forensic Science	Biology and Chemistry	Terminology and investigative procedures related to crime scene investigation – fingerprint analysis, ballistics, and blood spatter analysis
Engineering Design & Problem Solving (K)	Algebra II, Chemistry, and Physics; 12th grade only	Use the engineering design process cycle to investigate, design, plan, create, and evaluate solutions
Advanced Animal Science	Biology and Chemistry; 12th grade only	For students seeking career in animal science

Check your work!

Example 1 – STEM, Option 2 – Engineering

Periods	High School Credits Earned in Middle School	9th Grade	10th Grade	11th Grade	12th Grade
1		English I	English II	English III	English IV
2	Algebra I	Math: Geometry K	Math: Algebra II K	Math: Precalculus K	Math: AP Calculus AB
3		**Biology K**	**Science: Chemistry K**	**Science: AP Physics I**	**Science: Eng. Design & Problem Solving K**

Example 2 – Business & Industry, Option 1: Ag, Food, & Natural Resources

Periods	High School Credits Earned in Middle School	9th Grade	10th Grade	11th Grade	12th Grade
1		English I	English II	English III	English IV
2		Math: Algebra I	Math: Geometry	Math: Algebra II	Math: Adv. Algebra
3		**Biology**	**Science: Chemistry**	**Science: Aquatic Science**	**Science: Adv. Animal Science**

Example 3 – Multidisciplinary Studies, Option 1 – Four by Four (4 X 4)

Periods	High School Credits Earned in Middle School	9th Grade	10th Grade	11th Grade	12th Grade
1		English I	English II	English III	English IV
2		Math: Algebra I	Math: Geometry	Math: Algebra II	Math: Adv. Algebra
3		**Biology**	**Science: Chemistry**	**Science: Aquatic Science**	**Science: Astronomy**