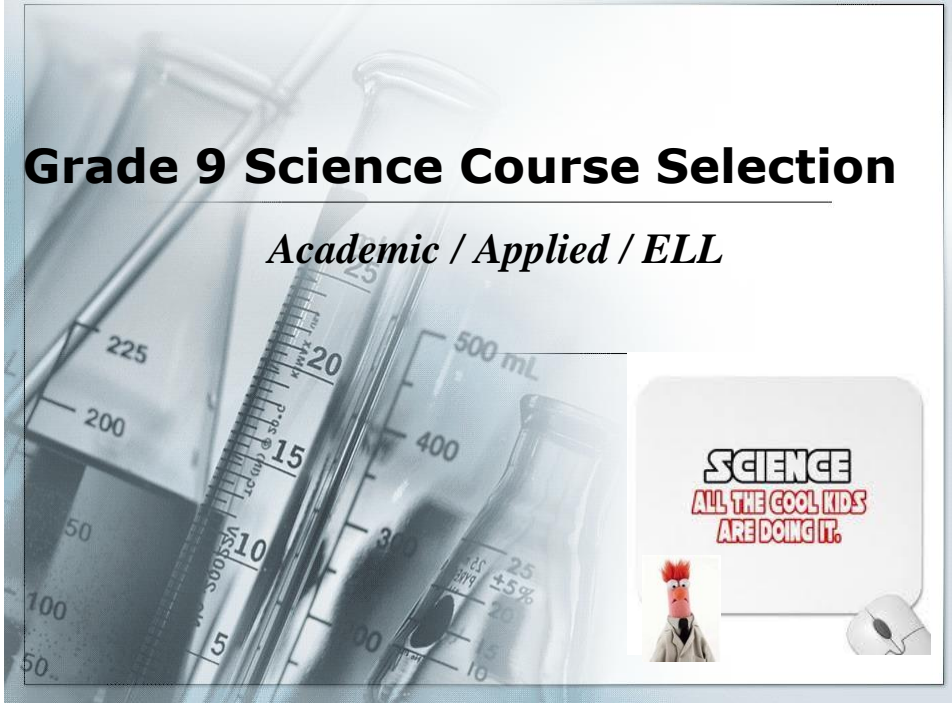


Grade 9 Science Course Selection

Academic / Applied / ELL

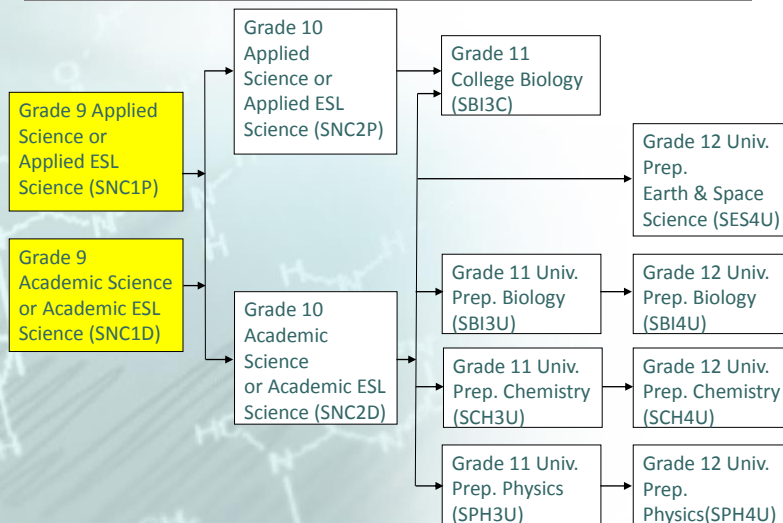


Academic vs. Applied Science

What's the
difference?



Pathways in Science



Grade 9 Applied Science Course

- I learn best when I can use my senses (visual, audio, kinesthetic)
- I **may** require assistance with problem solving.
- I prefer to learn a new topic and have an **extra day** to practice it.
- I like to have some practice time with teacher / peer support in class
- I am willing to do **a little** homework each day.
- **My grade 8 teacher recommended me for this course.**



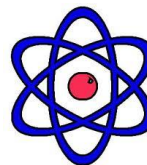
Grade 9 Academic Science Course

- I am able to learn a new topic **everyday** and feel comfortable with it.
- My reading and mathematical abilities are strong and have served me well in previous science classes
- I am comfortable exploring science ideas with a hands-on approach or an abstract approach.
- I am expecting to do most of my homework outside of class
- I am willing to do **some** homework each day.
- **My grade 8 teacher recommended me for this course.**



Grade 9 Academic or Applied (ELL) Science Course

- The same expectations as the corresponding Academic or Applied course.
- I need lots of help with learning vocabulary or conveying my thoughts on paper
- My STEP profile is level 3 or below
- **My grade 8 teacher recommended me for this course.**



Basic Grade 9 Science Course Outline

Units of Study

- Unit 1 – Chemistry – the study of chemical reactions
- Unit 2 – Physics – the study of electricity and its characteristics
- Unit 3 – Ecology – the study of ecosystems interactions
- Unit 4 – Space – the study of the universe



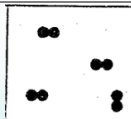
Other Course Basics

Applied, Academic and/or ELL courses are combinations of:

- Class lessons/notes
- Labs and activities
- Quizzes and tests
- Homework and assignments
- A final written exam and lab exam in the final week of the course



Academic vs. Applied



Sample Applied question:

In these diagrams, each type of circle represents a different type of atom.

- How many different types of particles do you see?
- Does the picture show a **compound** or an **element**?

Sample Academic question:

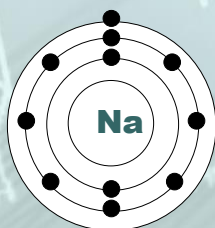
State whether each of the picture is an element (E), a compound (C), a solution(S) or a mechanical mixture (M)

Academic vs. Applied

Sample Applied question:

Draw the **electron arrangement** for sodium

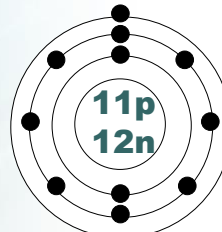
Answer:



Sample Academic question:

Draw the **Bohr- Rutherford** diagram for sodium.

Answer:



ELL Lesson Sample

Unit 1: Chemistry Vocabulary List

Lesson 1: Lab Equipment

Key Term	Word Form (v, n, adj, adv.)	Your Language / English / Diagram	Key Term	Word Form (v, n, adj, adv.)	Your Language / English / Diagram
Beaker			Rubber stopper		
Beaker tongs			Spot plate		
Electronic balance			Stirring rod		
Erlenmeyer flask			Test tube		
Funnel			Test tube brush		
Graduated cylinder			Test tube holder		
Dropper			Test tube rack		
Overflow can			Thermometer		

ELL Lesson Sample (Part 2)

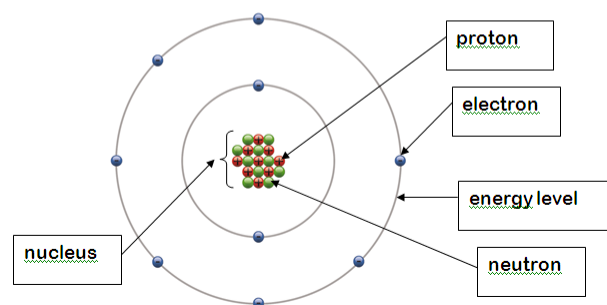
Lesson 11: The Structure of an Atom (Pearson p.175)

What is an atom?

The smallest particle of an element that give the element its properties

Label parts of an atom below using the following key terms:

proton electron neutron nucleus energy level



Science Department Rules

Things you should know...

- **Test and Quizzes:**

- All major tests are announced 1 week in advance.
- There are no “re-takes” tests or quizzes
- If you are sick, please call in before 8:30 am on the day of the absence.
- Students always write a missed quiz or test on their first day back.
- Skipping and cheating will result in a mark of “ZERO”

- **Assignments:**

- All major assignments are announced several weeks in advance.
- Speak with your science teacher if other arrangements must be made.
- Plagiarized or copied assignments will result in a mark of “ZERO”



Science Department Policies

- **Missed Work:**

- Students are responsible for work missed due to an absence.
- Please contact a learning partner to find out what was missed.

- **Extra Help:**

- Always available, ask your teacher to arrange for a time.



UHS...some advice...

- Be prepared for new experiences and challenges
- Try new things – join clubs, teams – contribute to the school community
- Learning Skills – this is **KEY** as you'll be super busy
- Have fun – you're only here once!



QUESTIONS?