

Curriculum Night: 7TH Grade Science

Willows Preparatory School 2018-19

Mr. Loker



I.B. Learning Aims & Goals

Students will participate in learning experiences that are aimed to:

- cultivate analytical, inquiring, flexible minds that pose questions, solve problems, construct explanations and judge arguments
- collaborate and communicate while performing investigations, evaluating evidence and reaching conclusions
- understand and appreciate science and its implications in living and non-living environments

I.B. Learning Objectives

IB Learning Objectives are determined across four objective criterion in Science:

- Objective A – Knowing and understanding
- Objective B – Inquiring and designing
- Objective C – Processing and evaluating
- Objective D – Reflecting on the impact of science

I.B. Grading Criteria

Students will receive a local grade which is percentage based and letter referenced. This can be found in the student handbook.

Additionally, all IB objective criterion will be assessed at least once each trimester. The success in the objective criterion is measured on a 0-8 scale. Limited competency is graded 1-2, adequate 3-4, substantial 5-6 and excellent 7-8. Further detail regarding the grade descriptors is attached.

A cumulative score is calculated for each trimester using the criterion scores and this is referenced on a scale of 1-7. Further details are also attached.



The following is an outline of the chapters that will be covered throughout each trimester. Underlying approaches for each chapter involve independently and collaboratively investigating issues through research, observation, and experimentation.

Trimester 1

Genetics: How are traits passed from parents to offspring?

Bacteria & Viruses: Are viruses living and why are they important?

Environment and Change over time: How do species adapt to changing environments over time?

Trimester 2

Understanding the Atom: What are atoms and what are they made of?

Periodic Table: How is the periodic table used to classify and provide information about all known elements?

Elements and Chemical Bonds: How do elements bond together to form compounds?

Trimester 3

Electromagnetic Waves: How can you describe and use electromagnetic waves?

Electricity: How do electric circuits transform energy in electric devices?

Magnetism: How are electric charges and magnetic fields related?