

## Language Arts

- use the **dictionary** and **thesaurus**
- know and give examples of **prefixes** and **suffixes**
- what is a **synecdoche**? Identify it in writing.
- use and identify figurative language (**metaphor, personification, simile, onomatopoeia, hyperbole, alliteration**)
- know the difference between **1<sup>st</sup> person and 3<sup>rd</sup> person narration**/points of view
- compare genres of writing (**ie. Fiction, Fantasy, Historical Fiction, Science Fiction, Poetry, etc.**) and what they provide the audience with
- understand **facts** versus **inferences** versus **opinions**
- distinguish between and use **table of contents** and **indexes**
- use correct **pronouns**
- be able to identify **verb tenses: past, present and future**
- know the difference between **coordinate conjunctions** and **subordinate conjunctions**
- know and give examples of **comparative** and **superlative forms of adjectives**
- know how to use **colons, parentheses** and **ellipses**

## Math-Statistic and Probability

- create and understand **line graphs**
- know how to **collect data** using **questionnaires, experiments, tables**, etc.
- understand how to **represent line graphs, bar graphs** and **pictographs**
- identify the **probability** of something happening
- tell the difference between **experimental probability** and **theoretical probability**

## Math-Number Sense

- know **place value**, including numbers that are **greater than one million** and **less than one thousandth**
- be able to **add, subtract, multiply** and **divide** these numbers
- solve problems with **whole** and **decimal numbers** (line them up by place value)
- find and use **factors** and **multiples**
- identify **prime** and **composite** numbers
- how do you turn an **improper fraction into a mixed number** and vice versa?
- understand and demonstrate **ratio**
- use **equivalent ratios** and **fractions**, mostly by **simplifying**
- understand and demonstrate **percentages** of whole numbers
- demonstrate **integers** and be able to calculate differences between them (**positive** and **negative** numbers)
- multiply** and **divide numbers with decimals** (cross-multiplication and long-division)
- know and use the **order of operations (BEDMAS)**

## Math-Patterns and Relations

- extend and make up **repeating patterns**
- sort **objects into categories** (not too obvious)
- use **tables** and **graphs to describe patterns**
- identify and label **the X and Y sides** of graphs
- understand and use **coordinate grids**
- use **equations** with at least **one variable**
- understand the **preservation of equality** with numbers and variables

## Math-Shape and Space

- classify **angles (obtuse, reflex, straight, acute, right)**
- estimate angle measurements** using 45, 90 and 180 degrees as references
- draw and **measure angles** up to 360 degrees
- understand there are **180 degrees IN a triangle**
- understand there are **360 degrees IN a quadrilateral**
- calculate **perimeter of polygons**
- calculate the **area of rectangles and squares**
- calculate the **volume of rectangular and square prisms**
- identify **scalene, isosceles, equilateral, right, obtuse and acute triangles**
- translate, rotate and reflect 2-D objects**
- plot **coordinates in a Cartesian Plane**

## Science-In General

- know the variables in an **experiment** and give examples of the **manipulated variable**, the **constant variable** and the **identifying or responding variable**

## Science-Air and Aerodynamics

- show how **air takes up space** and **exerts pressure**
- provide **examples of how air is fluid** (capable of being compressed) and give everyday examples
- what is **Bernoulli's Principle**? Identify examples of it in cars and planes.
- know and explain the **4 forces of flight (lift, thrust, gravity, drag)**
- identify **bird adaptations** for flying
- describe **propulsion** and compare it in **animals and aircraft**
- understand **streamlining** and that it will reduce drag
- know that **air is composed of different gases**

## Science-Flight

- compare **parachute designs** and what makes them effective
- describe how a **hot-air balloon** works and how it **rises and falls**
- what makes a **glider** function?
- explain how **stability controls aircraft in flight**, give examples of parts that create stability
- use appropriate vocabulary when talking about **control surfaces**, including: **wing, fuselage, vertical and horizontal stabilizers, elevators, ailerons and rudders**
- understand what **movements the elevators, ailerons and rudders** make planes do
- explain the **difference between aircraft and spacecraft** and the lack of oxygen in space

## Science-Trees and Forests

- explain **why trees and forests are important** and valued
- explain **how forests and trees are habitats**, important for recreation, give us raw materials and create a life-supporting environment
- describe animals and plants that live **IN, ON, UNDER or AMONG** trees---**how are the living things affected by the tree?** How is the tree affected by those living things?
- what part do trees play in the **nutrient cycle**, and in the **production of oxygen?**
- identify the differences **between trees** from **other plants** and **deciduous** from **coniferous** trees
- what are **natural species versus cultivated species** of trees? Give examples
- describe and **classify leaf shapes, leaf arrangements and branching patterns** in different types of trees using provided visual information
- interpret the **growth pattern** of young trees and **tree rings** by using differences in coloration, texture, new and old growth and scars
- identify **human uses of forests**, both past and present
- identify **what types of human actions enhance or threaten** the existence of forests
- what are some of the **issues about using forests** and **give one action** that might be taken to deal with that issue

## Science-Sky Science

- know the difference between **emitted light** (Stars and the Sun) and **reflected light** (moons, planets, comets, asteroids, etc.)
- show how a **constellation** will move through the sky throughout the year (counterclockwise in the Northern Hemisphere of the Earth)
- understand that **the sun should never be looked at directly**, and give examples of safety precautions to do so
- explain how a **sundial** works
- explain or draw the difference in length of day and sun's light in the **different seasons** by understanding **the earth has a tilted axis**.
- know and identify the **phases of the moon** in order, and **where the Sun, Earth and Moon are in relation to each other** during these phases
- what are **the other planets that revolve around our sun**, what do you know about them?
- know that other planets (including the Earth) have **moons**, also called **satellites**
- identify **technologies** to give us knowledge about other planets and objects in the night sky
- KNOW**: our sun, earth and moon are a part of our solar system (the Milky Way Galaxy), which is only one tiny part of the known universe which is composed of millions of galaxies; also that many stars are suns that have their own solar systems.

## Science-Evidence and Investigation

- recognize **evidence of recent human and animal activity** in outdoor settings
- use **footprints** to infer the direction and speed of travel
- classify evidence into the following categories: **physical, circumstantial, direct**
- differentiate between **observations** and **inferences**
- classify and match** footprint, tire prints, soil samples, ink using chromatography, handwriting, natural and synthetic fabrics/fibers
- analyze evidence** provided in visual forms (graphs, crime scenes, tables, etc.)

## Social Studies- Democracy, Action and Participation

- know and explain some **democratic rights of all citizens of Canada**
- explain the role of the **Canadian Charter of Rights and Freedoms**
- explain and give examples of how **historical events affect** our current decision-making
- explain how a **citizen participates** in society
- explain the **contribution of elected officials**
- what is **Democracy** (explain **justice, equality, freedoms and representation**)?
- what are similarities/differences between **direct** and **representative democracy**?
- what are your **rights versus responsibilities**? Identify examples.
- how does the **justice system protect your freedoms**?
- what is the Treaty of La Grand Paix de Montreal and how does it compare to the Canadian Charter of Rights and Freedoms?

## Social Studies-Local and Provincial Governments

- how are **local government** representatives **elected**?
- what are the **responsibilities** of **local governments**?
- how are local governments different in **rural** and **urban** settings?
- why is the **school board** important in communities?
- explain how the **MLA's, Cabinet Ministers and Premier** represent the provincial government, how are they elected or get their position?
- what is the role and status of the **Lieutenant Governor** in the provincial government?
- what are the **responsibilities** of the **provincial government**?
- how can regular **citizens** get involved in **government decision-making**?
- what is **lobbying** and **petitioning**
- what are the **ACFA** and **MNAA** and **FNA** and what role do they play in our society?
- how do **elected officials show they are doing a good job** and active in the community?

## Social Studies- Ancient Athens

- how was the **government of Ancient Athens** structured? (**Boule, Assembly of 500, Court**)
- how were **citizens involved in decision making** in Ancient Athens?
- how did **identity, status, gender, and class structure** affect the people of Ancient Athens? (**women, men, children, citizens, Athenian woman, metics and slaves**)
- what were the definitions of **equity and fairness in Ancient Athens**? Think about the social structure; who represents who, how does each group have a say?



## Social Studies- Iroquois Confederacy

- how was the **Iroquois Confederacy structured?** (**Clan Mothers, Chiefs, Nations**)
- what was the **role and status of women** within the Confederacy?
- what are the advantages and disadvantages of **consensus decision making**?
- Major events/stories** where the six nations used the consensus building process (like Grande Paix de Montreal and the Peacemaker and the Peace Tree)
- what is **collective identity**?
- what is a **Wampum Belt**? What is it used for?
- What are the definitions of **equity and fairness in the Confederacy**? Think about the social structure; who represents who, how does each group have a say?

## Social Studies-Other Skills

- use **cardinal points** to locate places on maps (like Coordinate grids in Math)
- explain how **scale** is used in maps
- be able to **use scale**
- identify **bias in the media**
- identify the **multiple perspectives** on any issue