

National Geographic Live at the Royal Theatre **B.C. Curriculum Connections**

Kobie Boykins | Exploring Mars

Science 3

- Big Ideas—Thermal energy can be produced and transferred
- Big Ideas—Wind, water, and ice change the shape of the land
- Content—sources of thermal energy and the transfer of thermal energy
- Content-- observable changes in the local environment caused by erosion and deposition by wind, water, and ice
- Content—matter is anything that has mass and takes up space

Applied Design, Skills, and Technology 3

- Big Ideas: Designs grow out of natural curiosity
- Big Ideas: Technology are tools that extend human capabilities

Science 4

- Big Ideas—The motions of Earth and the moon cause observable patterns
- Content—energy has various forms and can be conserved
- Content—devices that transform energy
- Content—the effects of the relative positions of the sun, moon and Earth

Applied Design, Skills, and Technology 4

- Big Ideas: Designs can be improved with prototyping and testing
- Big Ideas: Skills are developed through practice, effort and action
- Big Ideas: The choice of technology and tools depends on the task

Science 5

- Big Ideas—Machines are devices that transfer force and energy
- Content—properties of simple machines and their force effects
- Content—constructed machines

Applied Design, Skills, and Technology 5

- Big Ideas: Designs can be improved with prototyping and testing
- Big Ideas: Skills are developed through practice, effort and action
- Big Ideas: The choice of technology and tools depends on the task

Science 6

- Big Ideas—Newton’s 3 Laws of Motion
- Big Ideas—The solar systems is part of the Milky Way
- Content—Newton’s 3 Law of Motion
- Content—force of gravity
- Content—the overall scale, structure and age of the universe
- Content—the position, motion, and components of our solar system

Applied Design, Skills, and Technology 6,7,8

- Big Ideas: Designs can be responsive to identified needs
- Big Ideas: Complex tasks require the acquisition of additional skill
- Big Ideas: Complex tasks may require multiple tools and technologies

Science 7

- Big Ideas—Elements consist of one type of atom, and compounds consists of different elements chemically combined
- Big Idea—Electromagnetic force produces both electricity and magnetism
- Content—evidence of climate change over geological time
- Content—elements and compounds are pure substances
- Content—electricity

Science 8

- Big Ideas—Energy can be transferred
- Content—Properties, behaviours and ways of sensing light

Science 9

- Big Ideas—Electric current is the flow of electric charge
- Content—Circuits must be complete for electrons to flow
- Content—Voltage, current and resistance
- Content—Effects of solar radiation on the cycling of matter and energy
- Content—A systems approach to sustainability sees all matter and energy as interconnected and existing in dynamic equilibrium

Applied Design, Skills, and Technology 9

- Big Ideas: Social, ethical and sustainability considerations impact design
- Big Ideas: Complex tasks require the sequencing of skills
- Big Ideas: Complex tasks require different technologies and tools at different stages