

## Lessons - Small Dome Applications; Astronomy, Geology, Meteorology

### **Starry Night Small Dome**

#### **Primary School Lessons**

P1: Night and Day

P2: Going Through a Phase - Moon Phases

P3: Location, Location, Location - Finding Your Way Around the Sky

P4: Myths Around the World - Constellations and Stars Lore

#### **Secondary School Lessons**

S1: A Change Of Season

S2: Now You See It, Now You Don't - Solar and Lunar Eclipses

S3: Welcome to the Neighborhood - Overview of the Solar System

S4: Welcome to the Neighborhood - The Planets

S5: Moving Out - The Motion of the Planets

S6: Big Macs - Meteors, Asteroids and Comets

#### **Advanced School Lessons**

A1: A Calendar in the Stars - Seasonal Constellations

A2: Star light, Star bright - The properties and life cycle of Stars

A3: Our Little Island - The Milky Way Galaxy

### **Layered Earth Geology Small Dome**

#### **Unit A: The Solid Earth**

A1: Earth as a System

A2: Earth's Layered Structure

A3: Oceans and Continents

#### **Unit B: Plate Tectonics**

B1: Continental Drift

B2: Seafloor Spreading and Paleomagnetism

B3: The Theory of Plate Tectonics

#### **Unit C: Minerals and Rocks**

C1: Minerals - Building Blocks of Rocks

C2: The Rock Cycle

C3: Igneous, Sedimentary and Metamorphic Rocks

C4: Weathering and Soil Formation

## **Unit C: Atmospheric Circulation**

- C1: Global Wind Patterns
- C2: The Jet Stream
- C3: Global Winds and Ocean Currents

## **Unit D: Weather**

- D1: The Water Cycle
- D2: Weather Patterns – Pressure Systems
- D3: Forecasting the Weather
- D4: Extreme Weather: Hurricanes and Tornadoes

## **Unit E: Climate**

- E1: Climate vs. Weather
- E2: Factors Affecting Climate
- E3: World Climate Zones

## **Unit F: Climate Change**

- F1: Paleoclimates: Climates of the Past
- F2: Recent Climate Change I
- F3: Recent Climate Change II – Past Climates on Earth
- F4: Natural Causes of Climate Change I – Solar Output
- F5: Natural Causes of Climate Change II
- F6: Natural Causes of Climate Change III
- F7: Natural Causes of Climate Change IV
- F8: Short-Term Climate Change I – El Niño/La Niña
- F9: Short-Term Climate Change II
- F10: Short-Term Climate Change III

## **Unit G: Human Activities and Climate Change**

- G1: Evidence of Climate Change I
- G2: Evidence of Climate Change II
- G3: Evidence of Climate Change III – Arctic Sea Ice
- G4: Evidence of Climate Change IV – Sea Levels
- G5: Evidence of Climate Change V – Land Ice
- G6: Climate Change and the Future I
- G7: Climate Change and the Future II
- G8: Climate Change and the Future III

## **Unit D: Shaping The Earth**

- D1: Shaping Earth's Surface
- D2: Mass Movement
- D3: Water and Ice Landforms
- D4: Wind Landforms

## **Unit E: Earthquakes**

- E1: Earthquakes and Faults
- E2: Earthquakes and Waves
- E3: The Strength of Earthquakes
- E4: Seismic Waves and the Earth's Interior
- E5: Living with Earthquakes

## **Unit F: Volcanoes**

- F1: Formation of Volcanoes
- F2: Types of Volcanoes
- F3: Living with Volcanoes

## **Unit G: Geologic Time**

- G1: Age of the Earth
- G2: The Geologic Timescale
- G3: Catastrophic Events and Mass Extinction
- G4: Earth's Future

## **Layered Earth Meteorology Small Dome (coming soon!)**

(tentative lessons)

### **Unit A: The Atmosphere**

- A1: Atmospheric Composition
- A2: Layers of the Atmosphere
- A3: The Ozone Layer
- A4: Atmospheric Pressure

### **Unit B: Earth's Energy Balance**

- B1: Methods of Heat Transfer
- B2: The Reason for the Seasons
- B3: The Greenhouse Effect
- B4: The Earth's Energy Balance