

# THE DIARY of 'YOU': Four billion years of human evolution

## **Syllabus dot-points (NSW Biology Stage 6)**

### **INTRODUCTION** (pp.2-5)

Chaos theory, energy flow, thermodynamics, entropy, hydrogen ..... 8.2.2 / 8.4.1  
Evolutionary timescale, continental drift..... 8.5.1 / 8.5.2

### **JANUARY** (pp.6-9)

Hydrogen, carbon, hydrogen's oxide, Earth forms, Earth's oldest crust..... 8.4.1

### **FEBRUARY** (pp.10-13)

DNA, first life, Miller and Urey, life's birthplace, lipids and membranes..... 8.3.2 / 8.4.1 / 8.4.2 / 9.3.4

### **MARCH** (pp.14-17)

Bacterial origins, stromatolites, rhodopsin, human rod cells..... 8.3.4 / 8.4.2 / 8.4.3 / 9.5.2 / 9.5.4

### **APRIL** (pp.18-21)

Bacterial gene sharing, photosynthesis, iron-oxides, life's mobile home ..... 8.4.2 / 8.4.3 / 8.5.1 / 9.3.4 / 9.9.1

### **MAY** (pp.22-25)

Chlorophyll & haemoglobin, cyanobacteria, giant stromatolites. .... 8.3.4 / 8.4.2 / 8.4.3 / 9.9.1

### **JUNE** (pp.26-29)

Evolution's turning point, global oxygen pollution, bacteria's rotary motor..... 8.3.4 / 8.4.2 / 8.4.3 / 9.9.1

### **JULY** (pp.30-35)

Life's response to oxygen pollution, iron oxide deposits, ATP production . .... 8.4.2 / 9.3.1 / 9.9.4 / 9.9.7

### **AUGUST** (pp.36-41)

Eukaryotes and organelles, mitosis, DNA transcription, first animals? ..... 8.3.1 / 8.3.7 / 8.4.2 / 8.5.4 / 9.6.4

### **SEPTEMBER** (pp.42-45)

Cells cooperate, symbiotic species (lichen) colonise dry land. .... 8.3.4 / 8.4.2

### **OCTOBER** (pp.46-49)

Meiosis begins, the problem of sexual union ..... 8.5.4 / 9.3.3 / 9.7.3

### **NOVEMBER** (pp.50-53)

'Snowball Earth', multicelled life, Ediacaran fossils, invasion of the land. .... 8.3.4 / 8.4.2 / 8.5.1 / 8.5.2 / 9.3.1

### **DECEMBER 1-30** (pp.54-57)

Pangaea, Gondwana, life disperses on land rafts, seeds and eggs..... 8.5.1 / 8.5.2 / 9.3.1

### **DECEMBER 31** (pp.58-61)

Humans evolve, the first Australians, enigmatic skulls, headbinding..... 9.8.3 / 9.8.4 / 9.8.5

**POSTSCRIPT** (pp.62-63). .... 9.8.1 / 9.8.5

**EVOLUTION** (p.64)..... 9.3.1

**TIMESCALE** (p.65)..... 8.4.2 / 8.5.2 / 9.3.1 / 9.8.2

### **ADDITIONAL READING** [www.regmorrison.id.au](http://www.regmorrison.id.au) (go to Education page)

#### **"The Pilbara: Evolution's Turning-point"**

Global oxygen pollution. .... 8.4.2

#### **"Last of its Tribe: The Salamander Fish"** [www.regmorrison.id.au](http://www.regmorrison.id.au) (Education page)

Specialised structures for gas exchange. .... 8.3.5

Environmental change produces biological change. .... 8.5.1 / 8.5.2

Internal fertilisation, burrowing and aestivation..... 8.5.3 / 8.5.4

#### **"Eulogy for an Unsung Pioneer"** [www.regmorrison.id.au](http://www.regmorrison.id.au) (Home page)

The evolution of humans. .... 9.8.1 / 9.8.3 / 9.8.4