

## APES FRQ TOPIC SUMMARY

### 1998

- 1: math, energy BTU dishwasher
- 2: nuclear power article; unlabeled diagram to interpret
- 3: pH tolerance of fish; diagram interpretation; lake acidification
- 4: map; preservation of a wooded area for birds; relevant laws

### 1999

- 1: pond; water quality; design exp, indicator species
- 2: developed vs. developing per capita; sustainability; policy
- 3: air pollutants graph
- 4: pesticide article analysis

### 2000

- 1: math; power plant BTU
- 2: recycling article
- 3: extinct/endangered species; biodiversity; relevant laws
- 4: age pyramids

### 2001

- 1: math; energy heating BTU
- 2: mini-article, food web, design exp
- 3: air pollutants and effects; sick building syndrome
- 4: water quality with map sketch; effects; clean water act

### 2002

- 1: math; electric cars; policies and benefits
- 2: water diversion projects
- 3: water toxicity; graph; LD/ED 50
- 4: article; El Nino /ENSO and diseases

### 2003

- 1: worm invasion article; exotic species
- 2: math; CBR/CDR graph to fill in
- 3: estuaries and wetlands; characteristics; human effects
- 4: endangered species article

### 2004

- 1: seafood article; biological magnification; mercury in water
- 2: math; energy; power plant, coal and wind
- 3: radioactive waste; storage; properties, effects
- 4: chemical and physical soil tests; conservation; humus; fertilizers

### 2005

- 1: disease article; infectious disease mortality graphs to interpret
- 2: math; per capita calcs; meat production and consumption; veg diet
- 3: coal mining; effects, impacts, restoration steps
- 4: minor math; ANWR (Alaskan National Wildlife Refuge); tundra; petroleum resources

### 2006

- 1: solar power systems
- 2: atmospheric CO<sub>2</sub> graphs and math
- 3: brownfield
- 4: graph: fish harvest; commercial fishing

### 2007

- 1: sewage treatment article
- 2: math – home water and energy use
- 3: destruction of stratospheric ozone
- 4: outdoor air pollution and temperature

### 2008

- 1: math - biodiesel
- 2: math – landfill & leachate
- 3: forests – fires, clear-cutting, etc.
- 4: Total Fertility Rate graph/chart

### 2009

- 1: nitrogen issues: nitrogen cycle, fertilizers, smog
- 2: math - methane digesters and electricity
- 3: water diversion - Colorado river, climate change effects
- 4: genetically modified crops – graph interpretation

### 2010

- 1: toxic chemicals; NO<sub>x</sub>/SO<sub>x</sub>
- 2: math; termites in rainforest
- 3: invasive species
- 4: math; estuaries, sea level and temp.

### 2011

- 1: boom and bust
- 2: coral reef with graph
- 3: electricity/power with graph
- 4: agriculture with graph

### 2012

- 1: natural gas/fossil fuels; vs. nuclear
- 2: math; alternative energy; forest data
- 3: pesticides/IPM
- 4: wetlands; food web

MORE →

**2013**

- 1: article; nutrients in water body
- 2: math; electric vehicles vs. standard; CO<sub>2</sub>
- 3: ozone; Montreal Protocol
- 4: biodiversity

**2014**

- 1: article; nuclear power plant
- 2: math; sewage and storm water runoff
- 3: plate tectonics; succession
- 4: biogeochemical cycles