Southwest Asia

Chapter 21 – Section 1
Peninsulas and Waterways

- **Anatolian Peninsula**
  - By Black Sea & Mediterranean Sea
  - Bosporus Strait & Dardanelles Strait

- **Arabian Peninsula**
  - By Red Sea & Persian Gulf
  - Straits of Hormuz

- **Suez Canal**
  - Strategic opening to the Mediterranean Sea.
  - Asia goods flow through here to Africa and Europe
Plains and Highlands

- **Arabian Peninsula**
  - Barren plains
  - **Wadi**: dry river beds except during the rainy season.
  - Hejaz Mountains

- **Anatolian Peninsula**
  - Plateau

- **Northern Plain of Afghanistan**
  - Agricultural Area

- **Golan Heights**, aka Al Jawlan
  - a hilly plateau overlooking the Jordan River & the Sea of Galilee.
  - Its strategic location has been the site of much conflict in the region.
Mountains

• Hindu Kush Mountains
  – Afghanistan

• Elburz Mountains & Zagros Mountains
  – Block clear passage into Iran

• Taurus Mountains
  – Separate Turkey from the rest of Asia
Bodies of Water

- Region is almost completely surrounded by water; great for trade
- **Tigris & Euphrates rivers** supported ancient civilizations
  - Flow through Turkey, Syria & Iraq; empty into Persian Gulf
  - Still help with agriculture
- **Jordan River** is a precious water source and a natural border between Israel and Jordan.
- **Dead Sea** is a landlocked salt lake; 1349 ft. below sea level; only bacteria survive
31.5% Salt Concentration, 9x higher than the oceans
Oil

• Major oil fields are located in the Arabian Peninsula, Iran & Iraq.
  – About 1/2 of the world’s oil reserves are found here.
How oil is made

Huge forests grew around 300 million years ago covering most of the Earth.

The vegetation dies and forms peat.

The peat is compressed between sediment layers to form lignite.

Further compression forms bituminous and sub-bituminous coal.

Eventually anthracite forms.
United States Oil Imports

Data are of crude oil imports monthly average between June 2005 - November 2005 where monthly average is greater than one million barrels.
Source: Energy Information Administration, January 2006
Oil Consumption as Percentage of World Total 2011

Source: U.S. Energy Information Administration
http://www.eia.gov/countries/data.cfm
2012-11-22
Other Resources

• Water is plentiful in Turkey, Iran, Lebanon and Afghanistan
• Coal, Copper, Potash, Phosphates, Chloride
What body of water borders the Fertile Crescent?
What major city developed in the Tigris-Euphrates River valley?
Southwest Asia

Chapter 21 – Section 2
Sandy Deserts

- Extremely arid; most areas get less than 18 inches of precipitation per year; Mediterranean climates provide green lush areas.
- **Rub al-Khali**, aka Empty Quarter, most famous desert in the region; 250,000 sq. miles; one of the largest sandy deserts
- An-Nafud, Syrian & Negev are major deserts in the region.
Salt Deserts

- Mountains block rain & dry winds increase evaporation; winds evaporate moisture in the soil leaving chemical salts behind creating a **salt flat**.
- Dasht-e Kavir & Dasht-e Lut
  - Located in Iran
Salt Flats
Dasht-e Kavir desert: satellite photograph centered on 34°44'15.20"N, 54°49'37.56"E. This is a false-color composite image made using infrared, green, and red wavelengths. The image has also been sharpened using the sensor’s panchromatic band.
Semiarid Lands

• At the edge of deserts; semiarid climates
• Enough rainfall for some grass and crops; cotton & wheat
  – Pasture animals; mohair goats in Turkey; hair is used to make textiles for export
Coast Lands

- Adequate rainfall along Mediterranean Coast; hot summers/rainy winters
- Good climate allows for crops to be grown year round
- Heavily populated due to comfortable climate
Southwest Asia

Chapter 21 – Section 3
Dams & Irrigation

• Turkey built dams along the upper Euphrates River to provide water and hydroelectricity.

• Controversial because countries downstream lose use of water for irrigation and hydroelectricity.

• National Water Carrier project in Israel causes international conflict because the water sources flow through several countries.
Modern Water Technology

- **Drip Irrigation**: using small pipes to slowly drip water just above ground to conserve water used for crops.
• **Desalinization:** Removing salt from ocean water; can sometimes be too salty and is used in sewage systems instead of for irrigation.
  – Costly and cannot meet all water needs

• Treating wastewater can be used for irrigation, but sometimes may not meet usage demands.
- **Fossil Water**: Water pumped from underground aquifers. Has little chance of being replaced due to regions low precipitation.
  - Exhausts a precious resource
How Petroleum Forms

• Organic material changed over millions of years & transformed by pressure and heat.
• Trapped inside porous rocks; nonporous rocks above act as a barrier preventing the gas/oil from moving to the surface.

fig2. how crude oil is formed
Where/When Discovered

• Industrialization and cars made petroleum a desired resource.
• 1st in 1908 – Persia aka Iran
• 1938 – Arabian Peninsula & Persian Gulf
• 1948 – Saudi Arabia; *al-Ghawar* very large oil field in the *Rub al-Khali*. Contains more than ¼ of all Saudi Arabia’s reserves.
Moving & Processing Oil

- Petroleum that hasn’t been processed, **crude oil**, must travel to a **refinery** through pipelines or tankers where it will be converted into useful products.
Transporting Oil

- Risk of oil spills, especially from ocean tankers, despite having double hulls.
- Some pipelines are buried underground; all are carefully monitored with pressure sensors to ensure safety.