1 The Significance of Textiles

2 Industrial Revolutions
   - A Period of Rapid Economic Growth
   - A Stage of Economic Development
   - A Particular Set of Historic Developments

3 Stages of Economic Growth
   - Model of Economic Development:
     - Societies develop along similar paths toward a modern economy, capable of sustained economic growth
   - Stages:
     - Pre-industrial economy
     - Preparation
     - “Take-off” -- fostered by a “leading sector”
     - Modern economy

4 THE Industrial Revolution [Great Britain. 18th and 19th centuries]
   - Mechanization
     - First in textiles, then in other industries
   - Power
     - Primarily water power, then steam
   - Materials
     - Range of innovations, especially iron & steel and chemicals

5 Why does the Industrial Revolution take place when it does?
   - Europe in the 18th century
     - Prosperity
     - Private property & enterprise
     - Baconian ideology
     - Peace

6 Why Britain?
   - Not as powerful or rich as France
   - Not where great economic growth might be expected ...BUT:
   - Range of factors at work to promote change, particularly when compared with France

7 Key British factors
   - Capital
Money can be lent and borrowed

Labor
- Labor can move from countryside to cities

Markets
- Trade well developed and respectable

Materials
- Good resource endowment (fibers, fuels, ores)

9. **Key British factors**
- Transportation
  - Few large physical barriers; island with many ports
- Freedom
  - Fewer restrictions on property, work
- Agricultural prosperity
  - Well-developed and managed farming
- Government policies
  - Favoring merchant and manufacturing classes
- Social & Cultural attitudes
  - “A Nation of Shopkeepers”

10. **Textiles**
- “Leading Sector” of British Industrialization
- First key industry to change
- Change induced further change in other industries

11. **Stages of Textile Production**
- Preparation
- Spinning
- Weaving
- Finishing

12. **Preparation**
- Includes processes that are mechanized
  - Combing
  - Carding
  - Ginning (later—for cotton)

13. **Spinning**
- A Bottleneck
- Series of innovations, beginning in the 1760s

14. **Spinning wheel**

15. **James Hargreaves** *(spinning jenny—1760s)*

16. **Richard Arkwright** *(water-frame—1760s)*
Throstle (water frame)

Samuel Crompton (mule--1779)

Weaving
- Series of innovations
- Changing scale and social patterns

John Kay (fly-shuttle--1733)

Power Looms
- Edward Cartwright (power loom--1785)
- Richard Roberts (power loom--1820s)

Finishing
- bleaching
- printing & dyeing

The factory system

Question:
- What makes textile production the "leading sector" of the British Industrial Revolution?