

SOUTHWESTERN CHRISTIAN SCHOOL

WORLD HISTORY

STUDY GUIDE : THE INDUSTRIAL AGE

1750 AD

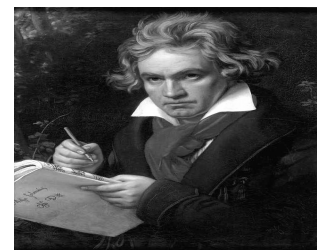
1920 AD

AGE OF REVOLUTION



LEARNING OBJECTIVES

1. **STUDENTS WILL BE ABLE TO IDENTIFY THE MAJOR PHYSICAL GEOGRAPHICAL FEATURES OF NORTH AMERICA**
2. **STUDENTS WILL BE ABLE TO IDENTIFY AND EXPLAIN THE CAUSES AND EFFECTS ON THE DEVELOPMENT OF WESTERN CIVILIZATION OF THE INDUSTRIAL REVOLUTION**
3. **STUDENTS WILL BE ABLE TO IDENTIFY AND EXPLAIN THE IMPACT OF MAJOR INDUSTRIAL INVENTIONS ON WESTERN CIVILIZATION**
4. **STUDENTS WILL BE ABLE TO EXPLAIN THE IMPACT OF NEW ECONOMIC PHILOSOPHIES, BROUGHT BY THE INDUSTRIAL REVOLUTION, ON WESTERN CIVILIZATION**



THE INDUSTRIAL AGE WAS

SHORT SUBJECT VIDEO > INTRODUCTION TO THE INDUSTRIAL REVOLUTION

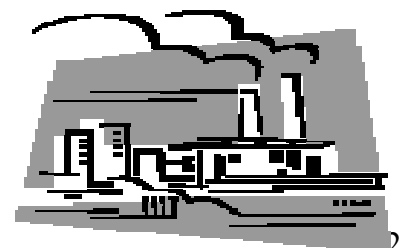
TERMS TO BE FAMILIAR WITH ; “ SLUMS ” - HEAVILY POPULATED URBAN AREAS CHARACTERIZED BY POOR HOUSING

1. **IN THE LATE 1700 s MOST PEOPLE WORKED IN THE _____
ON LAND THEY DID NOT _____**
2. **INVENTORS FOUND NEW WAYS TO HARNESS NATURE’S ENERGY , THEY
BUILT NEW KINDS OF MACHINES THAT WERE POWERED BY _____ ,
_____, AND _____**
3. **THE NEW MACHINES REPLACED _____
TOOLS THAT DID THE SAME WORK _____ AND _____**

4. *THE INDUSTRIAL REVOLUTION LED TO WORK BEING DONE OUTSIDE OF THE HOME IN SPECIALLY DESIGNED BUILDINGS CALLED _____*
5. *WITH THE DEVELOPMENT OF LOCOMOTIVES AND STEAMBOATS , MANUFACTURED GOODS COULD NOW BE _____ HALF WAY AROUND THE _____*
6. *FAMILIES MOVED FROM THE VILLAGES OF THEIR ANCESTORS TO INDUSTRIAL _____*
7. *A NEW CLASS OF PEOPLE EMERGED , THEY WERE PEOPLE WHO PRODUCED _____*
8. *INDUSTRIALIST WHO OWNED THE _____ EMPLOYED HUNDREDS OF PEOPLE AND MADE ENORMOUS _____ IN THEIR INDUSTRIAL CENTERS*
9. *THE WEALTH AND JOBS OF THE INDUSTRIAL REVOLUTION CAME AT A PRICE :*
 1. *_____ TURNED THE CITIES BLACK*
 2. *LACK OF HOUSING CREATED THE FIRST _____*
 3. *DEMAND FOR MORE GOODS AND PROFITS BROUGHT ABOUT THE _____ OF WORKERS*
10. *WORKERS AND REFORMERS PROTESTED AND FORMED _____*
11. *TODAY WE ARE IN THE MIDDLE OF ANOTHER REVOLUTION , A _____ REVOLUTION*

THE FOUR CAUSES FOR THE EMERGENCE OF THE INDUSTRIAL AGE :

- 1.
- 2.



“ CAPITAL ” -



3.

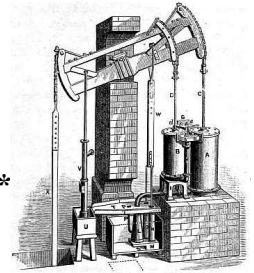
4. “ URBANIZATION ” -



THE FOUR MOST IMPORTANT EARLY TECHNOLOGICAL ADVANCEMENTS :

1.

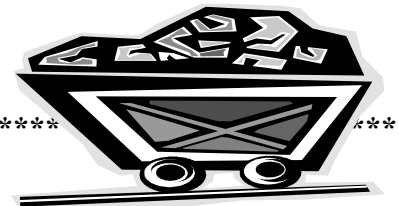
SHORT SUBJECT VIDEO > THE STEAM ENGINE



1. **BECAUSE THE STEAM ENGINE USED _____ FOR FUEL ,**
IT WAS NO LONGER NECESSARY TO BUILD FACTORIES NEXT TO

2.

SHORT SUBJECT VIDEO > COAL AND IRON

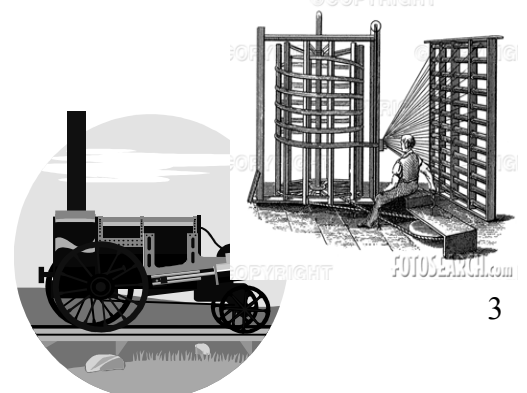


1. **COAL WAS NEEDED NOT FOR JUST STEAM ENGINES , BUT ALSO FOR**
_____ MAKING AND _____

2. **NEARLY ALL OF THE MACHINES OF THE INDUSTRIAL REVOLUTION**
WERE MADE OF _____ AND COKE MADE FROM _____
_____ WAS THE BASIC _____ USED TO MELT THE IRON ORE

3.

4.



THE EARLY IMPACT OF THE TECHNOLOGICAL ADVANCEMENTS ON SOCIETY AND ECONOMICS > 5 FACTS :

1.

2.

3.

“ FACTORY ” -



SHORT SUBJECT VIDEO > THE FACTORY

1. ***TRUE OR FALSE , FACTORY WORK WAS MUCH DIFFERENT SYSTEM FROM THAT OF THE COTTAGE INDUSTRY***

2. ***CHARACTERISTICS OF THE FACTORY SYSTEM :***

1. ***TRUE OR FALSE , THE BUSINESS OWNERS HAD A CLOSE RELATIONSHIP WITH THEIR WORKERS***

2. ***TRUE OR FALSE , WORK IN THE FACTORY WAS MORE TIRING THAN HOME MANUFACTURING***

3. ***TRUE OR FALSE , FACTORY WORK HAD GREATER PRODUCTION DEMANDS , BUT WAS MONOTONOUS***

4. ***TRUE OR FALSE , FACTORIES HAD BETTER WORKING CONDITIONS THAN COTTAGE INDUSTRIES***

5. ***TRUE OR FALSE , WAGES FOR WORKERS IN FACTORIES WAS HIGH***

3. ***WEALTH SHIFTED FROM LAND OWNING ARISTOCRATS TO FACTORY OWNING _____***

4. ***THE FACTORIES SWITCHED TO COAL AS THEIR FUEL BECAUSE WATER***

AND WIND WERE _____

4.



1.

2.

3.

4.

SHORT SUBJECT VIDEO > THE JUNGLE , BY UPTON SINCLAIR

1. **THE ECONOMIES OF INDUSTRIALIZING NATIONS SHIFTED FROM**

_____ **TO** _____

2. **THE JUNGLE WAS A NOVEL ABOUT WHAT TYPE OF BUSINESS ?**

3. **UPTON SINCLAIR BECAME CONCERNED ABOUT HOW THE _____**

WERE BEING CHEWED UP LIKE THE _____

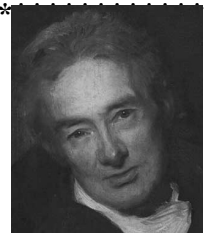
4. **TRUE OR FALSE , THE JUNGLE CAUSED PUBLIC OUTRAGE AND LED TO
FACTORY REFORM LAWS BEING PASSED**

5. **TRUE OR FALSE , IT TOOK A LONG TIME FOR THE WORKING
CONDITIONS OUTLINED IN THE JUNGLE TO IMPROVE**

6. **TRUE OR FALSE , REFORMS EVENTUALLY CAME FROM WITHIN THE
FACTORIES WHEN WORKERS ORGANIZED INTO _____**

**THE INDUSTRIAL AGE BRINGS OUT NEW SOCIAL AND ECONOMIC
PHILOSOPHIES :**

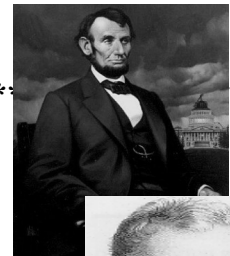
1. **“ WILLIAM WILBERFORCE ” -**



SHORT SUBJECT VIDEO > WILLIAM WILBERFORCE - AMAZING GRACE

**** PREVIEW OF THE CHAPTER VIDEO > NO NOTES**

2. **“ ABRAHAM LINCOLN ” -**

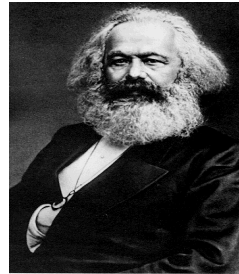
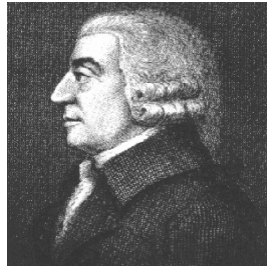


3. **“ THOMAS MALTHUS ” -**



WHAT DID THOMAS MALTHUS FAIL TO TAKE INTO ACCOUNT ?

THE INDUSTRIAL AGE BRINGS OUT NEW PHYSIOCRATS AND STARTS THE MOST IMPORTANT WAR IN HISTORY THAT IS STILL RAGING TODAY!!!!



4.

“ SOCIALISM ” -

“ FACTORS OF PRODUCTION ” -

1.

2.

3.

5. “ KARL MARX AND FRIEDRICH ENGELS ” -

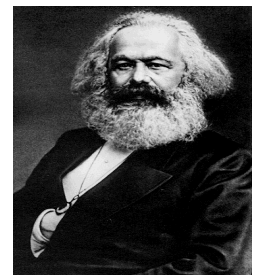
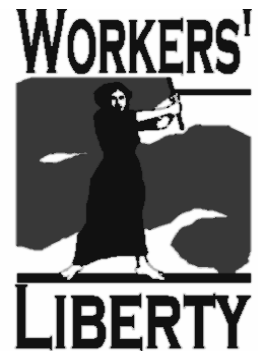
“ SCIENTIFIC SOCIALISM / MARXISM / COMMUNISM ” -

“ COMMUNIST MANIFESTO ” -

1.

2.

3.



“ PROLETARIAT ” -

4.

SHORT SUBJECT VIDEO > THE ROOTS OF MARXISM

- 1. TRUE OR FALSE , THE IDEAS OF KARL MARX HAVE HAD DEVESTATING CONSEQUENCES**
- 2. TRUE OR FALSE , MARXISM CONTINUES TO THRIVE IN MANY COUNTRIES**
- 3. MOST MODERN SOCIALISTS BASE THEIR DOCTRINES (BELIEFS AND TEACHINGS) ON _____ THEORIES**
- 4. MARX PREDICTED THAT THE STRUGGLE BETWEEN THE MIDDLE AND UPPER CLASSES (THE EXPLOITERS) AND THE WORKERS WOULD LEAD TO THE OVERTHROW OF _____**
- 5. MARX’S WRITINGS FUELED THE 1917 REVOLUTION IN _____ WHICH IS CONSIDERED THE MOST _____ POLITICAL EVENT OF THE 20 TH CENTURY**
- 6. IN A COMMUNIST SOCIETY THE _____ NOT THE LAND OWNERS CONTROLLED ALL THE MEANS OF _____**
- 7. THE COMMUNISTS BELIEVED THAT :**
 - 1. IF THEY COULD CHANGE THE _____ THEY COULD CHANGE THE COURSE OF HISTORY**
 - 2. THAT ALL OF HISTORY CAN BE EXPLAINED SIMPLY AS A STRUGGLE BETWEEN THE _____ CLASS AND THE OPPRESSED CLASS**
- 8. MARX BELIEVED THAT THE OPPRESSION OF THE CAPITALISTS WOULD SOME DAY CRUMBLE AND LEAD TO _____**
- 9. MARX’S COMMUNIST MANIFESTO ADVOCATED THE END TO _____ PROPERTY**

***** THREE MINUTE GAP IN NOTE TAKING AS THE VIDEO COMES TO A CONCLUSION**

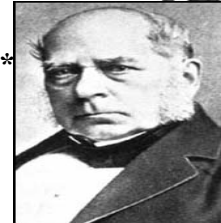
WHO HAS BEEN WINNING THE WAR ??

LATE INDUSTRIAL AGE TECHNOLOGY ADVANCEMENTS :

1.



SHORT SUBJECT VIDEO > THE BESSEMER PROCESS



1. **HOW OLD IS STEEL ?**

2. **MAKING STEEL IN _____ WAS ONE OF THE GREAT CHALLENGES OF THE INDUSTRIAL REVOLUTION**

3. **THE TRICK IN MAKING THE METAL WAS GETTING THE RIGHT COMBINATION OF STEEL'S TWO MAIN COMPONENTS _____ AND _____**

4. **WHAT GAS IS USED IN THE BESSEMER PROCESS FOR MAKING STEEL ?**

5. **STEEL IS _____ , MORE _____ AND LESS _____ THAN IRON**

6. **WHAT IS THE FUEL CALLED THAT IS USED TO GENERATE THE EXTREME HEAT NEEDED TO MELT THE IRON ORE ?**

7. **HOW HOT DOES THE BLAST FURNACE GET IN MELTING THE ORE ?**

8. **MOLTEN IRON THAT HAS MOST OF THE IMPURITIES REMOVED IS CALLED _____ IRON**

9. **THE _____ IRON STILL HAS TOO MUCH _____ IN IT TO BECOME STEEL**

10. **HOW LONG DOES IT TAKE TO TURN THE IRON ORE INTO A STEEL PRODUCT ?**

2.

3.

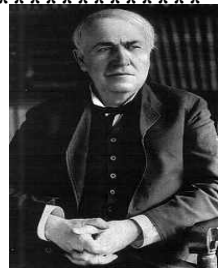
“ DYNAMO ” -

4.

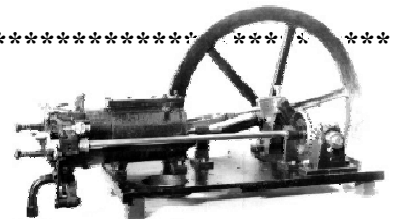


SHORT SUBJECT VIDEO > THOMAS EDISON

1. **TRUE OR FALSE , EDISON IS MORE RESPONSIBLE THAN ANYONE FOR CREATING THE MODERN WORLD**
2. **EDISON HELD PATENTS ON HOW MANY INVENTIONS ?**
3. **EDISON SAID , “ GENIUS IS _____ PERCENT INSPIRATION AND _____ PERCENT HARD WORK ”**
4. **EDISON CREATED ONE OF THE FIRST MODERN RESEARCH _____**
5. **EDISON WAS ALSO A GOOD BUSINESS MAN BECAUSE HE DESIGNED NEW DEVICES BASED ON WHAT PEOPLE _____ AND WOULD _____**
6. **TRUE OR FALSE , EDISON PRODUCED THE FIRST MOTION PICTURE**
7. **EDISON WAS DRIVEN BY HIS VISION OF THE _____**
8. **TRUE OR FALSE , EDISON WAS AWARDED THE CONGRESSIONAL MEDAL OF HONOR**



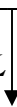
5.



6.

SHORT SUBJECT VIDEO > THE AUTOMOBILE

1. **DAMLIER AND BENZ CREATED THE FIRST PRACTICAL _____ ENGINE IN 1885**
2. **WHEN THE CAR WAS INVENTED THERE WERE NOT MANY PLACES IT COULD GO . IT WOULD TAKE BETTER _____ AND THE INVENTION OF THE _____ TIRE BEFORE CARS AND TRUCKS COULD BECOME PRACTICAL MEANS OF TRANSPORTATION**



3. A _____ TIRE IS LIKE A BICYCLE TIRE IN THAT IT IS
FILLED WITH _____ AIR . IT GAVE CARS A MUCH
_____ RIDE
4. AFTER 1900 _____ BECAME THE CENTER OF AUTOMOBILE
PRODUCTION
5. WHAT CHANGED THE AMERICAN CAR MANUFACTURING PROCESS ?
6. WHO PERFECTED THE PROCESS ?
7. THE FIRST FORD MODEL “ T “ COST _____

5.

SHORT SUBJECT VIDEO > THE WRIGHT BROTHERS



1. THE WRIGHT BROTHERS WERE BORN AT A TIME WHEN THE _____
_____ WAS BECOMING A TREMENDOUS FORCE FOR
CULTURAL CHANGE
2. WHAT BUSINESS DID THE WRIGHT BROTHERS FIRST START ?
3. THE WRIGHT BROTHERS FIRST FLIGHT WAS FOR _____ FEET UNDER
MACHINE GENERATED POWER
4. WHAT WAS THE FIRST TYPE OF AIRCRAFT MADE BY THE WRIGHT
BROTHERS ?
5. TO TRY OUT WING DESIGNS , THE WRIGHT BROTHERS BUILT THE
WORLD’S FIRST _____

6.

7.

SHORT SUBJECT VIDEO > THE TELEPHONE



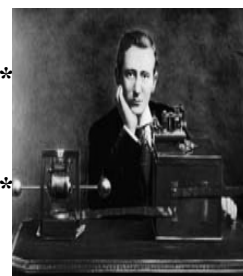
1. THE WORD TELEPHONE IS DERIVED FROM THE _____ WORDS
“ TELE ” WHICH MEANS _____ AND “ PHONE ”
WHICH MEANS _____

2. *THE PATENT FOR THE TELEPHONE IS CONSIDERED THE MOST _____*

EVERY ISSUED

8.

SHORT SUBJECT VIDEO > MARCONI AND WIRELESS



1. *MARCONI'S INNOVATIONS IN RADIO LAID THE FOUNDATION FOR THE
DEVELOPMENT OF _____*

**** THREE MINUTE GAP IN NOTE TAKING*

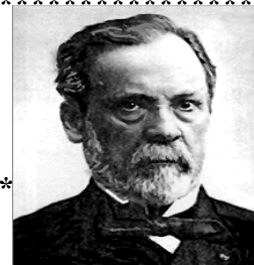
2. *WHAT YEAR DID THE FIRST WIRELESS TRANSATLANTIC COMMUNICATION
OCCUR ?*

3. *WHAT SPECIAL PRIZE FOR PHYSICS DID MARCONI SHARE WITH KARL
BRAUN (THE INVENTOR OF JET PROPULSION / MODERN ROCKETS) ?*

9.

“ PASTEURIZATION PROCESS ” -

SHORT SUBJECT VIDEO > LOUIS PASTEUR



1. *AROUND THE MID 1800s MANY WOMEN IN VIENNA AUSTRIA WERE
DYING AFTER GIVING BIRTH FROM A UTERINE INFECTION CALLED
_____ FEVER*

2. *IN THE MID 1800s NOBODY HAD YET MADE THE CONNECTION BETWEEN
_____ AND _____*

3. *WHAT DROVE LOUIS PASTEUR TO DO RESEARCH ON MICROBES ?*

4. *PASTEUR'S FOUND THAT _____ WERE CAUSING WINES
TO SOUR*

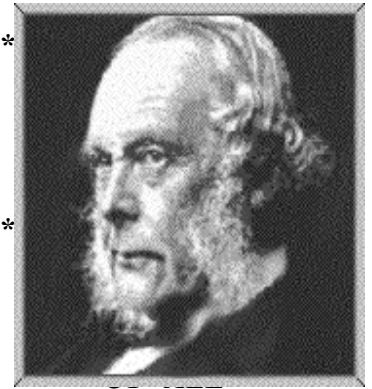
5. *PASTEUR FOUND THAT THROUGH A SIMPLE _____ TREATMENT
THE _____ COULD BE KILLED OFF AND THE WINE SAVED*

6. *PASTEUR'S _____ THEORY BEGINS THE ERA OF MODERN
_____*

10.

11.

SHORT SUBJECT VIDEO > JOSEPH LISTER - ANTISEPTICS AND MODERN SURGERY



1. **THROUGH THE MID 1800 s APPROXIMATELY _____ SURGERY PATIENTS WOULD DIE FROM THE SURGERY**
2. **AFTER DISCOVERING HOW SOME TOWNS CLEANED SEWERS , LISTER BEGAN TO USE _____ TO CLEAN WOUNDS**
3. **LISTER'S WAY OF TREATING WOUNDS WAS CALLED _____ TREATMENT**
4. **ONE PROBLEM WITH THE USE OF _____ WAS THAT IT ALSO KILLED HEALTHY CELLS**

12.

FIVE NEW BUSINESS METHODS OF THE LATER INDUSTRIAL AGE :

1.

“ ASSEMBLY LINE ” -

2.

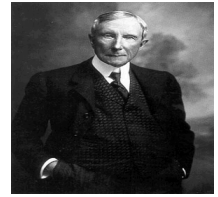
“ MONOPOLIES ” -



SHORT SUBJECT VIDEO > JOHN D. ROCKEFELLER AND THE OIL INDUSTRY

1. **WHAT WAS THE NAME OF THE COMPANY THAT ROCKEFELLER TURNED INTO A MONOPOLY ?**
2. **BY BUYING REFINERIES ROCKEFELLER CAME TO OWN _____ OF THE OIL INDUSTRY IN THE UNITED STATES**

3. **TRUE OR FALSE , ROCKEFELLER WAS THE WEALTHIEST MAN IN THE UNITED STATES**
4. **TRUE OR FALSE , ROCKEFELLER DONATED ENORMOUS SUMS OF HIS WEALTH TO CHARITIES AND ESTABLISHED EDUCATIONAL AND RESEARCH INSTITUTIONS**



ARE MONOPOLIES ILLEGAL ?

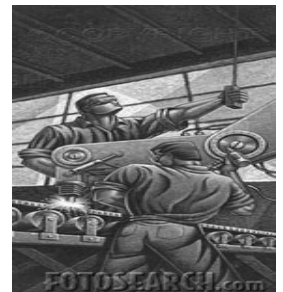
3. **“ CARTEL ” -**

ARE CARTELS ILLEGAL ?

4. **“ LABOR UNIONS ” -**
5. **“ STRIKE ” -**

SHORT SUBJECT VIDEO > URBANIZATION AND LABOR UNIONS

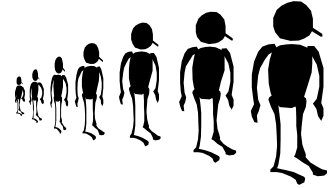
1. **BETWEEN 1860 AND 1910 THE UNITED STATES URBAN POPULATION GREW FROM ____ MILLION TO ____ MILLION .**
WHAT PERCENT GROWTH WAS THIS ?
2. **BY 1882 IMMIGRANTS WERE COMING TO THE UNITED STATES AT A RATE OF _____ PER YEAR**
3. **IMMIGRATION OF MANY GROUPS CREATED _____ AND _____**
SOCIAL TENSIONS
4. **BASED ON POPULATION , WHAT WAS THE LARGEST CITY IN THE UNITED STATES BY 1890 ?**
5. **WERE WORKING CONDITIONS HARD OR EASY FOR WORKERS DURING THE INDUSTRIAL REVOLUTION ?**
6. **TRUE OR FALSE , CHILDREN WORKED IN FACTORIES AND WERE PAID 30 CENTS PER WEEK**
7. **IN 1875 SKILLED AND FACTORY WORKERS BEGAN TO ORGANIZE INTO**



8. ***STRIKES IN CITIES ACROSS THE UNITED STATES LED TO THE FORMATION OF THE _____ OF _____***
9. ***TRUE OR FALSE , UNION LEADERSHIP EVENTUALLY BECAME DOMINATED BY SAMUEL GOMPERS AND THE AMERICAN FEDERATION OF LABOR (AFL)***

IMPACT OF THE INDUSTRIAL AGE > FOUR FACTS :

- 1.
- 2.
- 3.
- 4.



CHAPTER READING > DARWINISM : A THREAT TO MODERN SCIENCE - PAGES 294 - 296

1. ***DESCRIBE THE PRINCIPLE OF UNIFORMITY AND HOW IT RELATED TO DARWIN'S THEORY OF EVOLUTION***
2. ***EXPLAIN THE PROBLEM WITH THE METHOD OF NATURAL SELECTION AS IT RELATES TO THE THEORY OF EVOLUTION***

3. **WHAT IS THE BIGGEST PROBLEM WITH DARWIN'S THEORY OF EVOLUTION ?**

CHAPTER READING > THE TRIUMPH OF CAPITALISM - PAGES 308 - 309

1. **DESCRIBE ADAM SMITH'S PHILOSOPHY AS HE OUTLINED IN HIS BOOK THE WEALTH OF NATIONS , AND BE SURE TO EXPLAIN HOW THE CONCEPTS OF FREE TRADE AND LAISSEZ FAIRE FIT INTO THE PHILOSOPHY**

2. **FROM A CHRISTIAN PERSPECTIVE , WHAT ARE THE BENEFITS OF TECHNOLOGY AND CAPITALISM ?**

