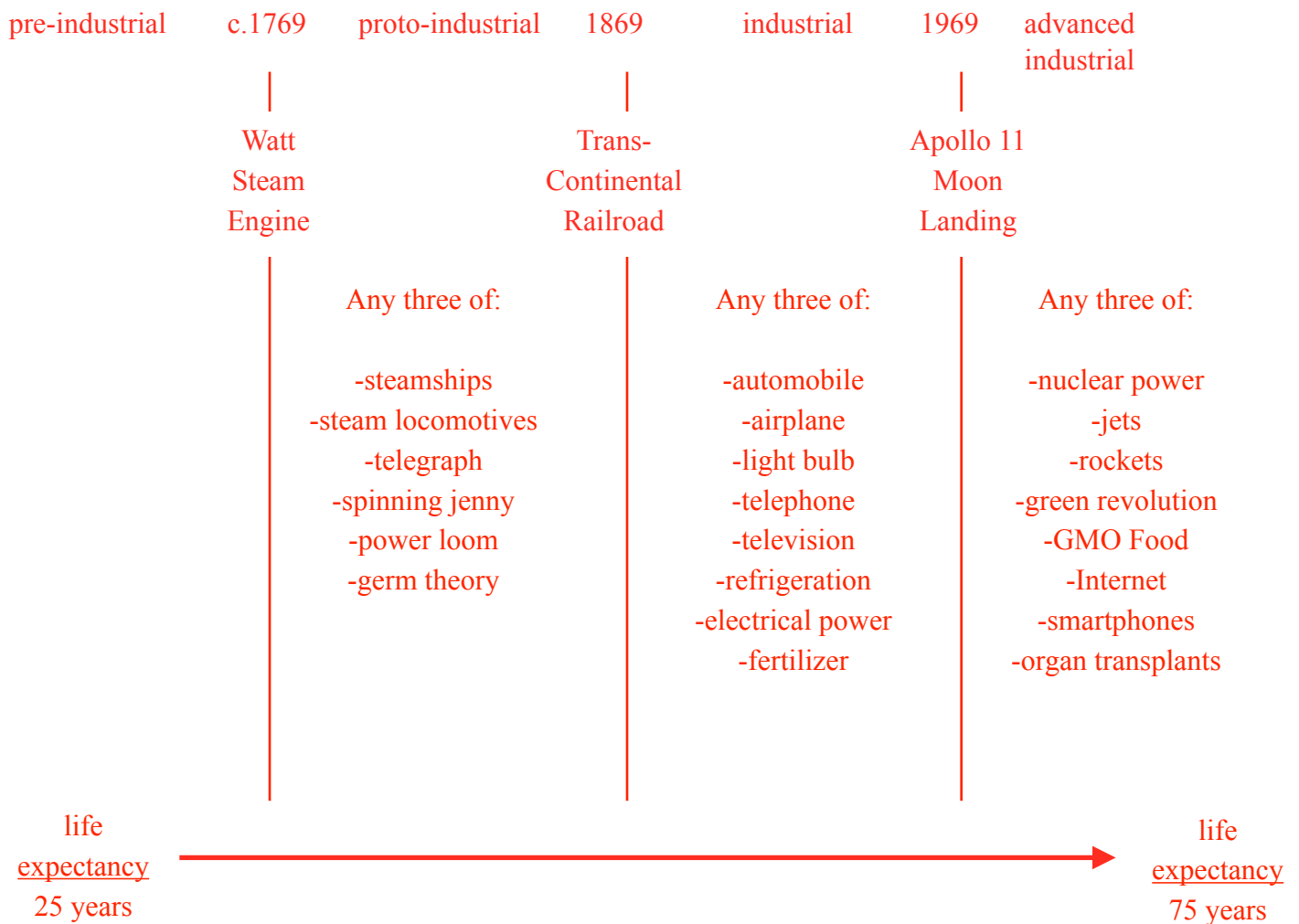


Part 1: Big Picture Timeline

1. In the space provided, and using the timeline from the class notes as a model, draw your own table/timeline of the history of technology and society with the following features:
 - a) four labeled periods/chapters with three dividing lines between them—and the *dates for the lines*
 - b) the names of the inventions/events that are the reason for the lines
 - c) the *names* of three inventions/events that are especially important to each modern period (no *dates*)
 - d) the life expectancy of human beings at the beginning and end of the timelines



Total Points This Page: 15 pts

Part 2: Power Revolutions

2. Describe the basic idea of a steam engine. Why are steam engines so important in history?

The basic idea of a steam engine is to capture the power of steam when you boil water in order to move mechanical engines. The steam engine is important in history, because steam engines were used to power equipment like the Spinning Jenny (for making thread) and the Power Loom (for weaving thread into cloth) in textile (clothing) factories, and also for engines in steamships (that could cross the Atlantic ocean much faster than sailing vessels, regardless of wind conditions) and locomotives on land. The “Age of Steam” was the first transportation revolution.

(4 pts: 1 pt for description; 1 pt for textile machines; 1pt for steamships and/or for locomotives; 1 for spelling and grammar)

3. What is the basic idea of “internal combustion”? What new kinds of vehicles did it help people to make?

The basic idea of “internal combustion” is that gasoline is exploded inside the engine instead of outside (like in a boiler). This makes it possible to make smaller and lighter engine, and helped inventors to create automobiles and airplanes.

(3 pts: 1 pt for description; 1 pt for automobiles and/or airplanes; 1 for spelling and grammar)

4. How did electricity improve our shelters? (What inventions that use electricity are involved?)

Electricity improved human shelters in many ways. A big one was by providing power for electrical lighting (lightbulbs). With electrical light, we can see clearly in our homes any time of day! Also electricity allows us to have refrigerators and air conditioners to preserve our food and adjust the temperature. Electricity can also be used with ovens (including microwave ovens) to cook our food.

(3 pts: 1 pt for lighting; 1pt for preserving and/or cooking food; 1 for spelling and grammar)

Total Points This Page: 10 pts

Part 3: Food and Medicine

5. What are the five parts of the Green Revolution?

The Green Revolution is a revolution with five parts: fertilizer (plant food), pesticides (chemicals for killing insects), herbicides (chemicals for killing weeds, but not food plants), irrigation (the distribution of water to farm fields), and hybridization (the creation of new breeds of plant foods that are more productive and resilient). Norman Borlaug is the American agricultural scientist that deserves the bulk of the credit for this advance.

(6 pts: 1 pt for each of fertilizer, pesticides, herbicides, irrigation, and hybridization ; 1 for spelling and grammar)

6. What is an example of an amazing thing doctors can do in surgery? What medical invention(s) make that possible?

Doctors can transplant organs through surgery! X-ray photography of the body helps them to see where things are in the body, and anesthesia keeps patients unconscious.

(3 pts: 1 pt for transplants, 1 pt for x-rays and/or anesthesia; 1 for spelling and grammar)

Part 4: Technology and Society

7. What are the kinds of technology we see in the four chapters of the history of transportation?

In the history of transportation we see the horse-drawn carriage and/or cart and/or sailing vessel of *pre-industrial* times, the steamship and/or steam locomotive for *proto-industrial* times, the automobile and airplane for *industrial* times, and finally *rockets (and jets)* for advanced industrial times.

(5 pts: 1 pt for the technology of each of the four phases ; 1 for spelling and grammar)

8. Why do *Luddites* and *transcendentalists* object to industrialization?

Luddites are against technology because it is against people using machines because it makes people more like machines. Transcendentalists are also against industrial technology because they believe that non-material values are more important than material values.

(3 pts: 1 pt for anti-mechanization; 1 pt for prioritizing the non-material; 1 for spelling and grammar)

Total Points This Page: 11 pts

TOTAL POINTS ON TEST: 36 pts