

Study Skill Workshop #13: Great Ways to Study**23 BLANKS**Summaries Study Reading MethodFrom Politics In America, 3rd Edition, By Lance T. Leloup.

St. Paul: West Publishing Company, 1991. p.381

SUMMARY AND CONCLUSIONS

1. Throughout most of the nation's first century, national politics was dominated by _____. Occasionally, the pendulum swung towards the presidency, as in the era of _____ and _____.
 2. The balance of power between the president and Congress permanently changed after the administration of Franklin Roosevelt, architect of the _____ presidency.
 3. Reacting to the "_____ presidency" and to abuses of presidential power, Congress took a number of steps in the 1970's and 1980's to _____ its power. The War _____ Act and the Budget and _____ Control Act were two of the most important.
 4. Reacting to the continued assertion of congressional power, _____ _____ has attempted to expand the prerogatives of the presidency on a number of fronts.
 5. As much as at any time of history, the ability of the American political system to govern depends on relations between Congress and the president. Presidents today are expected to present a _____ program to Congress and to work for its passage.
 6. Presidential success on Capitol Hill depends on the president's political _____ and how effectively it is used. Presidential resources include _____ congressional majorities, perception of a _____ to govern, and professional reputation. The White House congressional _____ office contributes to presidential effectiveness.
 7. Presidents have been most successful in securing congressional approval in the areas of _____ affairs and national _____ followed by social welfare and agriculture. Presidents have been least successful in getting Congress to approve their proposals in _____ _____.
 8. Presidents experience _____ influence with Congress through their term. This was particularly true of Ronald Regan. As a result, presidents must use their limited resources carefully. They must move _____ in the first year, set clear legislative priorities, hire experienced staff, and understand the needs of Congress.
 9. As a last resort in battles with Congress, the president may use the veto power. Active use of the veto _____ the ability of the political system to work effectively.
 10. Short of amendments to the Constitution, dramatic changes in national election results, or a significant shift in the balance of power between Congress and the president, governing through _____ coalitions seems to be the only viable alternation.
- The American political system remains unique. In few other nations are executive and legislative branches so independent. What concerns many observers is the demise of arrangements and practices that used to be blind the Congress and the president together. The founders labored to create

188 The JOVIAN PLANETS AND PLUTO

Table 11.1 US Planetary Probes to the Jovian Planets

Planet	Spacecraft	Arrival Date	Comments
Jupiter	Pioneer 10	Dec 1973	Flyby; Photos
	Pioneer 11	Dec 1974	Flyby; Photos
	Voyager 1	Mar 1979	Flyby; Photos of Jupiter and satellites
	Voyager 2	July 1979	Flyby; Photos of Jupiter and satellites
	Galileo	1988 (?)	Jupiter orbiter and probe
Saturn	Pioneer 11	Sept 1979	Flyby; Photos
	Voyager 1	Nov 1980	Flyby; Photos of Saturn and satellites
	Voyager 2	Aug 1981	Flyby; Photos of Saturn and satellites
Uranus	Voyager 2	Jan 1986	Flyby; deflected to Uranus by gravitational effect of Saturn
Neptune	Voyager 2	Aug 1989	Flyby; deflected to Neptune by Uranus. If the systems and communications with probe remain operative

Jupiter's Outer Layers

The first close-up look at Jupiter was provided by Pioneers 10 and 11 in December 1973 and December 1974, respectively. But the really good look came in 1979 when Voyagers 1 and 2 reached Jupiter and transmitted more than 33,000 pictures of the planet and its satellites back to earth. All four of these probes were flybys, but Pioneer 11 and both Voyagers were placed on trajectories such that Jupiter's gravitational deflection on them sent them on toward Saturn. Pioneer 11 passed Saturn in 1979 and the Voyagers in 1980 and 1981.

The surface of Jupiter is crossed with alternate light and dark, brightly colored bands parallel to its equator. The bands abound in detail and as seen telescopically from earth exhibit gradual changes. Time-lapse photographs from the Voyagers, however, show them to be enormously active and complex features. Jupiter is the most rapidly rotating planet, turning once in just under 10 hours. But its atmosphere does not rotate as a solid unit: different latitudes have slightly different velocities. As a result, the cloud bands, especially at their boundaries, show almost every conceivable kind of current and flow.

Even more striking is the Great Red Spot. The spot was first seen telescopically from earth in 1664. It has changed in size and shape since then, as well as in

intensity of color, but on the whole it has persisted. It has been as large as 50,000 km across and has always been far bigger than the earth. The Pioneer data suggested that it was some kind of long-lived storm system in the planet's atmosphere. The Voyagers showed it to be a massive eddy with a rotation period of about 6 days and enormously complex, and changing, small eddies in gas streams flowing around it.

As previously mentioned, the chemical composition of Jupiter is very similar to that of the sun—about 98 percent hydrogen and helium. The Voyager confirmed not only that these gases are the principal constituents of Jupiter's atmosphere but also that their relative abundance is the same as in the sun (about three parts hydrogen to one part helium, by mass). In addition, there are many other trace constituents. Among them are methane and ammonia, which were detected spectrographically from earth many years ago.

When Voyager 1 flew past Jupiter and turned back to photograph its night side, it sent us a surprise: Jupiter has a thin faint ring in its equatorial plane. The ring has an outer diameter of nearly 260,000 km; the width of its brighter region is about 6000 km, but it extends faintly all the way in to the planet's surface. The ring is very thin, no more than 30 km thick, and is composed of very tiny particles. The famous rings on Saturn not only are far more substantial, but also contain sizable chunks. Analysis of the scattering of light from the

From REALM OF THE UNIVERSE (3rd EDITION) by George O. Abell.
Philadelphia Saunders College Publishing, 1984.

THE POWER OF OUTLINING TEXTBOOK MATERIAL

From the text: PRINCIPLES OF ANATOMY AND PHYSIOLOGY by
Tortora & Grabowski, Harper Collins, 1996, pp. 408-410.

White Matter

The white matter underlying the cortex consists of myelinated and unmyelinated axons extending in three principle directions.

1. **Association fibers** transmit nerve impulses between gyri in the same hemisphere.
2. **Commissural fibers** transmit impulses from the gyri in one cerebral hemisphere to the corresponding gyri in the opposite cerebral hemisphere. Three important groups of commissural fibers are the **corpus callosum**, **anterior commissure**, and **posterior commissure**.
3. **Projection fibers** from descending and ascending tracts that transmit impulses from the cerebrum and other parts of the brain to the spinal cord or from the spinal cord to the brain. The **internal capsule**, a thick band of sensory and motor axons lying lateral to the thalamus, is an example.

Basal Ganglia

The **basal ganglia** are several groups of nuclei in each cerebral hemisphere. The largest nucleus in the basal ganglia is the **corpus striatum**. It consists of the **caudate nucleus** and **lenticular nucleus**. The lenticular nucleus, in turn, is subdivided into a lateral portion called the **putamen** and a medial portion called the **globus pallidus**. The portion of the internal capsule passing between the lenticular nucleus and thalamus is sometimes considered part of the corpus striatum.

Other structures that are functionally linked to and sometimes considered part of the basal ganglia are the **substantia nigra** and **red nuclei** of the midbrain and the **subthalamic nuclei** of the diencephalon. Axons from the substantia nigra terminate in the caudate nucleus and putamen. The subthalamic nuclei connect with the globus pallidus.

The basal ganglia are interconnected by many nerve fibers. They also receive input from and provide output to the cerebral cortex, thalamus, and hypothalamus. The caudate nucleus and the putamen control large automatic movements of skeletal muscles, such as swinging the arms while walking. The globus pallidus is concerned with the regulation of muscle tone required for specific body movements.

THE POWER OF OUTLINING OUTLINE ON THE SAME MATERIAL

I. White Matter

A. Basic facts

1. Underlies the cortex
2. Consists of myelinated and unmyelinated axons
3. These axons extend in three principal directions

B. Types of fibers

1. Association fibers
 - a. Transmit nerve impulses between gyri in the same hemisphere
2. Commissural fibers
 - a. Transmit impulses from the gyri in one cerebral hemisphere to the corresponding gyri in the opposite cerebral hemisphere
 - b. Three important groups of commissural fibers
 - 1) corpus callosum
 - 2) anterior commissure
 - 3) posterior commissure
3. Projection fibers
 - a. Form descending and ascending tracts
 - b. Tracts transmit impulses from the cerebrum and other parts of the brain to the spinal cord or from the spinal cord to the brain
 - c. Example of a projection fiber
 - 1) Internal capsule
 - a) Thick band of sensory and motor axons lying lateral to the thalamus

II. Basal Ganglia

A. Several groups of nuclei in each cerebral hemisphere

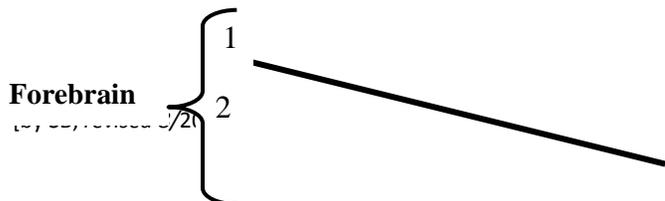
B. Corpus striatum

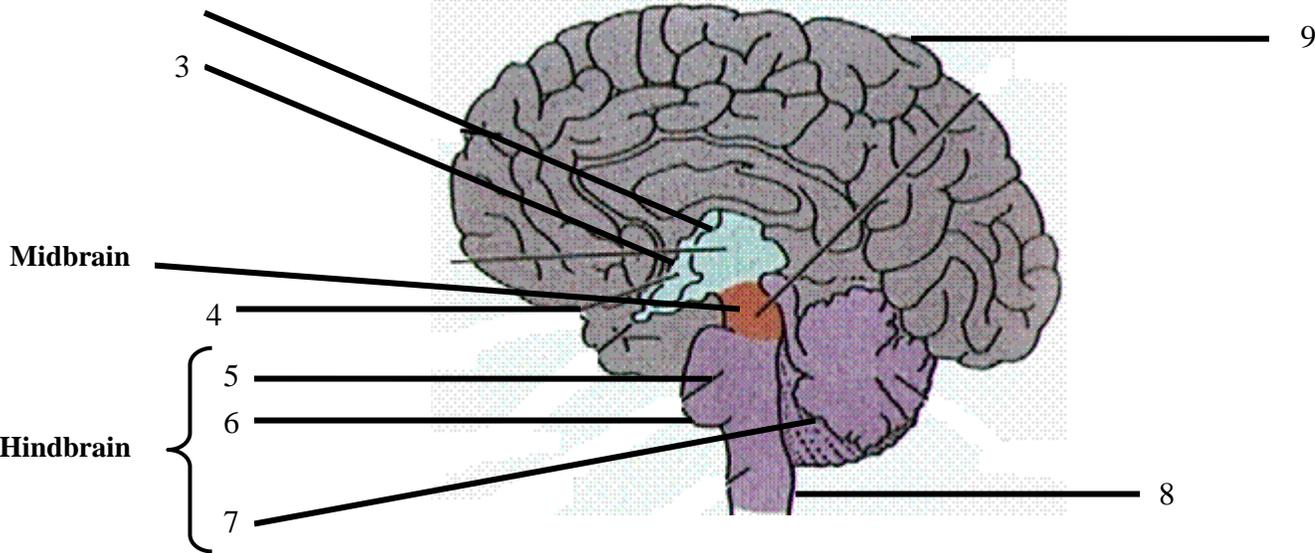
1. Largest nucleus in the basal ganglia
2. Parts
 - a. Caudate nucleus
 - 1) Along with the putamen, controls large automatic movements of skeletal muscles, such as swinging the arms while walking
 - b. Lenticular nucleus
 - 1) Putamen (lateral portion)
 - 2) Globus pallidus (medial portion)
 - a) Concerned with the regulation of muscle tone required for specific body movements
3. Portion of the internal capsule passing between the lenticular nucleus and thalamus is sometimes considered part of the corpus striatum

C. Other structures functionally linked to, sometimes considered part of the basal ganglia

1. Substantia nigra of the midbrain
 - a. axons from this terminate in the caudate nucleus and putamen
2. Red nuclei of the midbrain
3. Subthalamic nuclei of the diencephalons
 - a. connect with the globus pallidus

Figure 48.20 The main parts of the human brain.





- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____