

## 8.1 A: Energy and Life

**In What Forms Does Energy Exist?**

Light, Heat, Electricity, Chemical Compounds



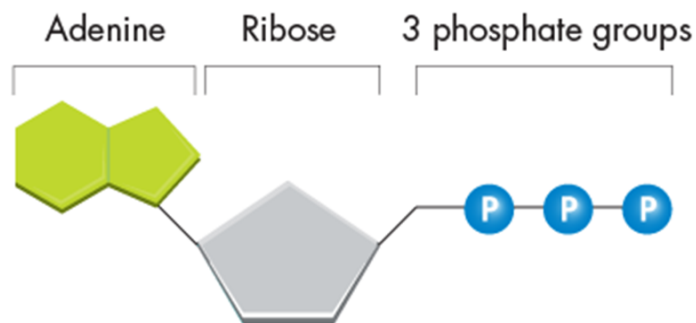
**The process of organisms obtaining and using energy is...**

Cellular Respiration

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Organisms use a special form of chemical energy!

Adenosine Triphosphate (ATP)





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ATP has stored energy within the phosphate bonds

When the phosphate bond is broken, ATP becomes.....

Adenosine Diphosphate (ADP)

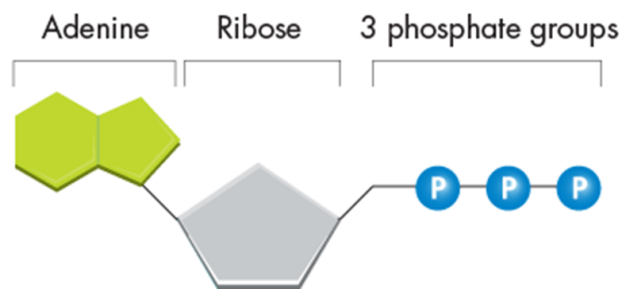


and energy is **RELEASED!**

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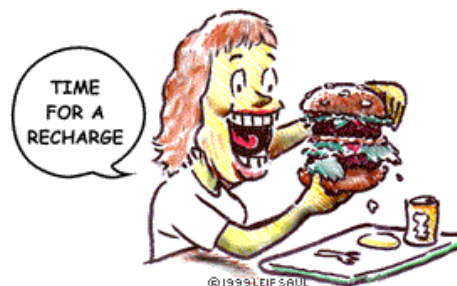
When the phosphate bond is reformed, ADP becomes.....

ATP

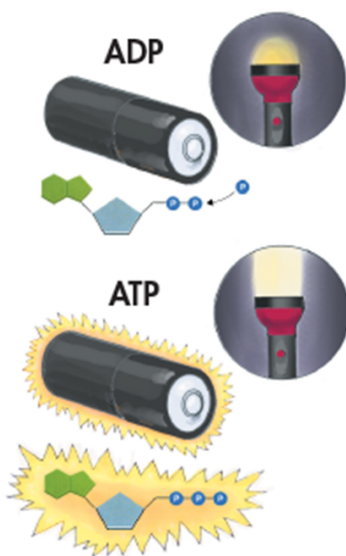


and energy is **STORED!**

ATP - LIKE A RECHARGEABLE BATTERY



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ADP has some energy, but not enough to provide the energy we need

When it becomes ATP, usable energy is added!

This cycle powers our CELLS!