

# INDT 100 Lesson 5

Week #: 3 Lesson 5

Subject: Power Supplies

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<p><b>Overview</b></p> <p>Power generation</p>	<p><b>Purpose</b></p> <p>Introduction to Portables and AGE....</p>
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		Teacher's or other reference	
<p><b>Objectives</b> Skills/information that will be learned.</p>	<p>Realize power comes in different forms DC sources: Chemical, Generator, Solar AC: Inverters, Alternators</p>		<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>
<p><b>Information</b> (Give and/or demonstrate necessary information)</p>	<p>Ch. 22 is a start. Discuss battery and testing Generation break down a generator Break down an alternator Discuss Faradays law of induction.</p>	<p><math>Emf = NAB \sin(\omega t)</math>  EMF=volts N=turns of wire A=circle area of wrapped wire B=Mag field Wt=position (Note if position changes with time?...More Emf) (Divide by R we have I. Multiply ExI we have power...</p>	
<p><b>Verification</b> (Steps to check for student understanding)</p>	<p>Show Them sine waves. Make a small generator and have it run</p>		<p><b>Other Resources</b></p>
<p><b>Activity</b> (Describe the independent activity to reinforce this lesson)</p>	<p>Have them hook two generators (motors) together have one run the other... Have them rectify an A/C output. Stepper motors are good here too...</p>	<p>A great Lab opportunity</p>	
<p><b>Summary</b></p>			<p><b>Additional Notes</b></p>