

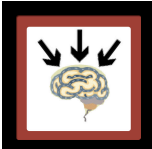

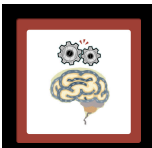



Outline of the « Gaussbusters » LES

<p>NOTE: This activity was designed within the framework of teacher training sessions. It may require adaptation before being used with students.</p>	
<p>PREPARATION</p>	
<div style="display: flex; align-items: center;">  <div> <p>1 Catalyst</p> <ul style="list-style-type: none"> • Presentation of the context and of the challenge • Overview of the fabrication of integrated circuits (chips) in industry </div> </div>	<div style="display: flex; align-items: center;">  <div> <p>2 Activation of previous knowledge</p> <ul style="list-style-type: none"> • Construction of a network of concepts about electrical engineering (command, conduction, protection functions...) </div> </div>
<p>REALISATION AND INTEGRATION</p>	
<div style="display: flex; align-items: center;">  <div> <p>3 Learning activities</p> <p style="text-align: center;">Activities relating to electronics</p> <ol style="list-style-type: none"> 1. Description of electronic components 2. Resistor (code, variable resistor) 3. Condenser (ceramic, electrolytic) 4. Diode (LED and ordinary diode) 5. Solenoid (relays, induction) 6. Transistor 7. Printed circuit (plate, verifying, soldering) </div> </div>	<div style="display: flex; align-items: center;">  <div> <p>4 Establishing a plan</p> <ul style="list-style-type: none"> • The student delimits the problem and establishes his/her work plan with regards to the design of the housing. <p style="text-align: center;">(See student booklet)</p> </div> </div>
<div style="display: flex; align-items: center;">  <div> <p>5 Complex task</p> <ul style="list-style-type: none"> • Make the gaussmeter circuit: <ul style="list-style-type: none"> · make the plate and validate it; · make the solenoid and validate it; · solder the components onto the circuit; · verify its operation • Design the gaussmeter housing. </div> </div>	<div style="display: flex; align-items: center;">  <div> <p>6 Synthesis activity</p> <ul style="list-style-type: none"> • Build a network of concepts about electronics • Study the intensity and configuration of the electromagnetic field of electrical devices or installations. </div> </div>