



## Westside High School Lesson Plan Template

Teacher Name	Klein	Unit Name	Scientific Methods
Course	AP Environmental Science	Dates	August 22-Sept 6

Monday	<p><b>Daily Objective:</b> To understand the 3 goals of APES</p> <p><b>Agenda with Approximate Time Limits:</b> (Assuming we'll only have 20 min for the first day. Prepared to elaborate in welcome and/or get to know you to value time as available)</p> <p>Make name signs (5 min)</p> <p>Welcome to class powerpoint – 3 goals of APES, introduction to class (10 min)</p> <p>Hand out Syllabus</p> <p>Get to know you: Two truths and a lie (5 min)</p> <p>Closure: Write homework in planner</p> <p><b>Formative Assessment:</b></p> <p>Monitoring and redirecting as needed with directions</p> <p><b>Modifications:</b></p> <p>None for first day</p> <p><b>Intervention:</b></p> <p>None for first day</p> <p><b>Extension:</b></p> <p>For time – see note above</p> <p><b>Follow-Up/Homework:</b></p> <ol style="list-style-type: none"><li>1. Syllabus: Write two sets of “2 truths and a lie” about the syllabus. Due tomorrow at beginning of class.</li><li>2. Collect class materials specified on syllabus</li></ol> <p>Agenda with Approximate Time Limits: Formative Assessment:</p> <p>Modifications: Intervention: Extension:</p>
Tuesday	<p><b>Daily Objective:</b></p> <p>To describe “Good Science”</p> <p><b>Agenda with Approximate Time Limits:</b></p> <p>Turn in Syllabus Two truths and a lie/ use these to discuss syllabus finer points (10 minutes)</p> <p>Coaching – how to take powerful notes (5 min)</p> <p>Notes: What is “Good science” (30 min, CFUs embedded in power point)</p> <p>Class procedures: how to navigate Canvas, writing homework in planner (5 min)</p> <p><b>Formative Assessment:</b></p> <p>Syllabus two truths and a lie</p> <p>Walk room to make sure all can access canvas</p>



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	<p><b>Modifications:</b> <b>As needed/specified by law</b></p> <p><b>Interventions:</b> Speak privately with students who have not brought in homework today. Discuss the value of a planner</p> <p><b>Extension:</b> SEL challenge games</p> <p><b>Follow-Up/Homework:</b> Complete writing assignment “What is good science?” using website linked on Canvas “12 signs of Bad Science”</p>
<b>Wednesday/Thursday</b>	<p><b>Daily Objective:</b> To describe the differences between Claim/Evidence/Reasoning and to build skills of observation and inference</p> <p><b>Agenda with Approximate Time Limits:</b> Turn in homework, discuss class policy on daily grades and homework (5 min) Hand out Scientific Methods Objective sheet and discuss its use in APES (5 min) Activity: Observation, inference and Claim/Evidence/Reasoning logic (45 min, CFU embedded) Sign in to Edpuzzle, write homework in planner (10 min)</p> <p><b>Formative Assessment:</b> Participation in activity</p> <p><b>Modifications:</b> <b>As required by law</b></p> <p><b>Intervention:</b> Redirection during activity</p> <p><b>Extension:</b> More practice with data to differentiate between observation and inference and to write statements using the CER format</p> <p><b>Follow-Up/Homework:</b> Edpuzzle: Scientific Methods</p>



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<b>Friday</b>	<p><b>Daily Objective:</b> To review experimental design and scientific methods</p> <p><b>Agenda with Approximate Time Limits:</b> Reteach from Edpuzzle (5 min) Discuss handout “Scientific Methods” (10 min) Small group practice: Experimental design analysis (30 min) Discuss Service Learning Expectations for APES (10 mn)</p> <p><b>Formative Assessment:</b> Small group activity Experimental design analysis</p> <p><b>Modifications:</b> <b>As required by law</b></p> <p><b>Extensions:</b> Allow time in class to find service learning sign up on Canvas and to choose dates</p> <p><b>Follow-Up/Homework:</b></p> <ol style="list-style-type: none"><li>1. Data Nugget: Springing forward</li><li>2. Sign up for service learning on Canvas</li></ol>
<b>Monday</b>	<p><b>Daily Objective:</b> To describe the Tragedy of the Commons</p> <p><b>Agenda with Approximate Time Limits:</b> Turn in Homework, reinforce need for planner and organization (5 min) Activity: Tragedy of the Commons (30 min, CFU embedded in activity) Sign in to myAPclassroom, write homework in planner (10 min)</p> <p><b>Follow-Up/Homework/Formative assessment:</b></p> <ol style="list-style-type: none"><li>1. Complete prelab “Infiltration in soil”</li></ol>
<b>Tuesday</b>	<p><b>Daily Objective:</b> To plan the lab “Infiltration in soils”</p> <p><b>Agenda with Approximate Time Limits:</b> Lab quiz Socrative (15 min; <b>Formative assessment</b>) Set up lab groups (10 min) Demonstrate use of infiltration tube outside Lab groups pick two locations for testing and create hypotheses (25 min)</p> <p><b>Formative Assessment:</b> Lab quiz</p> <p><b>Modifications: As required by law</b></p> <p><b>As needed/specified by law</b></p> <p><b>Intervention:</b> Redirection of lab groups as needed</p>



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	<p><b>Extension:</b> Have students write a preliminary hypothesis</p> <p><b>Follow-Up/Homework:</b></p> <ol style="list-style-type: none"><li>1. Have lab notebook in class on Friday</li><li>2. Sign up for service learning on Canvas</li></ol>
<b>Wednesday/Thursday</b>	<p><b>Daily Objective:</b> To test different areas of the campus for infiltration rates. To hypothesize what might cause the differences</p> <p><b>Agenda with Approximate Time Limits:</b> Individually: Write hypothesis (5 min) In lab groups: Gather data (45 min) In large group: compile class data on Canvas excel document and analyze hypotheses (30 min)</p> <p><b>Formative Assessment:</b> Discussion with students during lab</p> <p><b>Modifications: as required by law</b> <b>As required by law</b></p> <p><b>Intervention:</b> Redirection during activity</p> <p><b>Follow-Up/Homework:</b>  Be sure to have your lab notebook in class on Friday</p>
<b>Friday</b>	<p><b>Daily Objective:</b> To write the lab report using the lab format and CER conclusion format</p> <p><b>Agenda with Approximate Time Limits:</b> Set up lab notebook (10 min) Follow step by step format to write lab report (40 min)</p> <p><b>Formative Assessment/Intervention:</b> Checking in with students as they write their report</p> <p><b>Modifications:</b> <b>As required by law</b></p> <p><b>Follow-Up/Homework:</b> Complete lab report – Major grade due Tuesday Sept 6</p>