

Biology Inquiry syllabus planning guide

<b>Theme: Writing &amp; Communication</b>				
<b>Learning Goal</b>	<b>Learning Outcome</b>	<b>Measurable/Assessment</b>	<b>Activities</b>	<b>Resources</b>
Read scientific publications	Identify hypothesis, experimental design & controls, interpret results	Point-based assignments: <ul style="list-style-type: none"> <li>- Article write-ups</li> <li>- Grading rubric to include knowledge gained based on desired learning outcome (content)</li> <li>- In-class group work</li> <li>- Follow-up experimental design based on desired learning outcome</li> </ul> Pre/post questionnaire: <ul style="list-style-type: none"> <li>- Confidence in reading/interpretation skills</li> </ul> Pre/post assessment: <ul style="list-style-type: none"> <li>- Grades obtained per rubric guidelines</li> </ul>	<ul style="list-style-type: none"> <li>- Article write-ups</li> <li>- In-class group work</li> <li>- DDP project</li> </ul>	
Write about scientific content and ideas	Writing clearly, concisely, and on topic	Point-based assignments: <ul style="list-style-type: none"> <li>- Article write-ups</li> <li>- Grading rubric to include knowledge gained based on desired learning outcome (structure/style)</li> </ul> Pre/post questionnaire: <ul style="list-style-type: none"> <li>- Confidence in reading/interpretation skills</li> </ul> Pre/post assessment: <ul style="list-style-type: none"> <li>- Grades obtained per rubric guidelines</li> </ul>	<ul style="list-style-type: none"> <li>- DDP project</li> <li>- Personal statement</li> <li>- Peer review of DDP and/or personal statement drafts</li> </ul>	
<b>Theme: Refine Passion &amp; Define Direction</b>				
<b>Learning Goal</b>	<b>Learning Outcome</b>	<b>Measurable/Assessment</b>	<b>Activities</b>	<b>Resources</b>
Identify [an aspect of science] that student is passionate about	Clearly communicate your passion in a personal statement	Point-based assignments: <ul style="list-style-type: none"> <li>- Personal statement</li> <li>- IDP w/ goals set to attain identified passion</li> <li>- CV/resume</li> <li>- Social media (students' choice)</li> </ul> Pre/post questionnaire:	<ul style="list-style-type: none"> <li>- Personal statement</li> <li>- IDP</li> </ul>	

		<ul style="list-style-type: none"><li>- Motivation/inspiration survey (ask Erin)</li></ul> <p>Post assessment of personal statement:</p> <ul style="list-style-type: none"><li>- Qual/quant assessment for structure, contain, direction, passion</li></ul>		
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<b>Theme: Know the PSU Biology Department</b>				
<b>Learning Goal</b>	<b>Learning Outcome</b>	<b>Measurable/Assessment</b>	<b>Activities</b>	<b>Resources</b>
Know what kinds of research are going on in the PSU Biology Department	Recognize faculty and labs, identify their areas of study and/or model organism	Point-based assignments: <ul style="list-style-type: none"> <li>- Identify a lab that aligns most with student's personal research interests</li> <li>- Write a cover letter to above lab</li> <li>- Group work: Craft a "research map"</li> </ul> Pre/post questionnaire: <ul style="list-style-type: none"> <li>- Motivation/inspiration survey (ask Erin)</li> <li>- Comfort of students to contact faculty/grad students or potential employers or future grad schools/mentors</li> </ul>	<ul style="list-style-type: none"> <li>- Cover letter</li> <li>- Group-work research map project</li> </ul>	
<b>Theme: Careers in Science</b>				
<b>Learning Goal</b>	<b>Learning Outcome</b>	<b>Measurable/Assessment</b>	<b>Activities</b>	<b>Resources</b>
Overview and awareness of career options	Identify personally interesting career paths	Pre/post questionnaire: <ul style="list-style-type: none"> <li>- # and type of careers students can list</li> <li>- Self-identification of career trajectory</li> </ul>	<ul style="list-style-type: none"> <li>- IDP</li> <li>- Interpersonal communication</li> <li>- Meeting etiquette</li> </ul>	