

5E Lesson Plan	
<p><b>Engage</b> The purpose for the ENGAGE stage is to pique student interest and get them personally involved in the lesson, while pre-assessing prior understanding.</p>	<p>Day 1: The lesson will start by posing the following question to the students: “What do you think is going to be one of the most important organisms to our survival over the next 50 years?”</p> <ul style="list-style-type: none"> <li>• Students will share out their responses; the class will hopefully come to the consensus that we either do not know or have not been able to come to an agreement.</li> <li>• I will follow up by saying that one group of scientists think they have the answer. I will then show them the Exxon Mobile commercial about algae and their potential use for biofuel. <a href="https://youtu.be/jQb3uNKbaKg">https://youtu.be/jQb3uNKbaKg</a></li> <li>• This video should get the class interested in the Protists, a group of organisms that the students probably know little about</li> </ul>
<p><b>Explore</b> The purpose for the EXPLORE stage is to get students involved in the topic; providing them with a chance to build their own understanding.</p>	<p>Day 1 – Day 3 Students will explore the protists in two different ways, through research and then viewing and classifying them under the microscope</p> <ul style="list-style-type: none"> <li>• Students will be put into groups and given the protist similarities and differences graphic organizer <ul style="list-style-type: none"> <li>o Students will be assigned a series of websites and articles posted on google classroom to help them fill out the graphic organizer</li> <li>o Students will be assigned an individual article or website based on their capabilities</li> <li>o Students will then share out what they learned individually with their group</li> <li>o The whole class will review some of the major points they found in their research</li> </ul> </li> <li>• Students will continue to explore the protists by viewing them under the microscope. <ul style="list-style-type: none"> <li>o Students will rotate through a series of 6 microscope stations. At each station a specific species of protist will be available to be viewed.</li> <li>o A corresponding species information page from the “Guide to Microlife” will be provided to help students get a better understanding of what they are viewing.</li> </ul> </li> </ul>

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<p><b>Explain</b> The purpose for the EXPLAIN stage is to provide students with an opportunity to communicate what they have learned so far and figure out what it means.</p>	<p>Day 4 To explain their understanding of the protists, students will choose one species to focus on and complete an Instagram post. The Instagram post will require the students to either draw what they saw under the microscope, or include/edit a picture they took with their phone while viewing the specimen under the microscope. The post will also have them do some creative writing to give information about their species in a concise and creative way</p>
<p><b>Elaborate/Extend</b> The purpose for the EXTEND stage is to allow students to use their new knowledge and continue to explore its implications.</p>	<p>Day 5 Students will return to their group to develop an idea for a media arts video. Using the Exxon Mobile video as inspiration, students will use their knowledge of what they have learned to create a video that explains not only to explain what a protist is but why they are so important to our environment and daily life.</p> <ul style="list-style-type: none"> <li>• The video must be under 3 minutes, informative, and engage the audience in a creative way.</li> </ul>
<p><b>Evaluate</b> The purpose for the EVALUATION stage is for both students and teachers to determine how much learning and understanding has taken place.</p>	<p>A rubric will be used to evaluate the video on its level of engagement, information, application of material, creativity. Both myself and the other students will use the rubric evaluate the videos.</p>

**Resources:**

Exxon Mobil Protist Video: <https://youtu.be/jQb3uNKbaKg>

Protist Similarities and Differences Graphic Organizer:

[https://docs.google.com/presentation/d/12pUG8caFOhDYJOsrmlwytYZDctXXZfRopfAr3x\\_RfHY/edit?usp=sharing](https://docs.google.com/presentation/d/12pUG8caFOhDYJOsrmlwytYZDctXXZfRopfAr3x_RfHY/edit?usp=sharing)

Rannis, K.G. and Russel B.J. 1996. A Guide to Microlife.

Instagram Protist Page: <https://docs.google.com/presentation/d/1lpZNDw03Hee2wibLFHUupWpwBdF-Bn2xM4lfrttJv9g/edit?usp=sharing>