# How are Trees Important Lesson Plan

| Academic Standards/ English Proficiency Standards<br>*Which academic standards ground this lesson?*<br>*Which ELP standards will support Targeted ELD, Reading Development Standards or Integrated ELD?* | | Learning Progression/ Key Concepts<br>*How does this lesson fit in with previous & future lessons?*<br>*What academic concepts are most important to learn in this lesson?* | |
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| **HS.L2U1.21 - Obtain, evaluate, and communicate data showing the relationship of photosynthesis and cellular respiration; flow of energy and cycling of matter.**<br>**HS+B.L4U1.2 - Engage in argument from evidence that changes in environmental conditions or human interventions may change species diversity in an ecosystem.**<br>**HS.L2U1.19 - Develop and use models that show how changes in the transfer of matter and energy within an ecosystem and interactions between species may affect organisms and their environment.**<br>**HS+B.L2U1.3 - Use mathematics and computational thinking to support claims for the cycling of matter and flow of energy through trophic levels in an ecosystem.** | | Students will understand the importance of trees and how they could potentially affect biodiversity and ecosystems within the city. They will take their findings and use them for future lessons that require them to understand human impact on the environmental conditions of the planet. | |
| **Learning Goal(s)**<br>*What is the learning intended by the end of this lesson?*<br>*(Include both academic & ELD goals)* | **Success Criteria**<br>*What will it look like when students meet the Learning Goal(s)?* | **Lesson Activities**<br>*What will students do to progress towards the Learning Goal and meet the Success Criteria during the lesson? .* | **ELD/ LD Accommodations**<br>*What accommodations & scaffolds will you include for students who need additional support?* |
| I will be able to understand the importance of trees and how they affect living and non living things. | I will be successful when I develop an experiment to support one of the reasons why trees are important.<br><br>I will be successful when I collect data to create a graph and write a | **Day 1**: Students will be introduced to the different reasons why trees are important. Teacher will lay out the details of the project and as a class have discussions about the importance of trees here in Tucson. | Materials:<br>● Thermometer<br>● Laser Thermometer<br>● Binoculars<br>● Heart Rate monitor |

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| I will be able to interpret data and understand a graph. | conclusion about the findings of the experiment. | **Day 2**: If haven't done already, teacher will go over student handout. 📄 How are Trees Important . Students will start brainstorming and picking their reason to focus their research on. Students will start planning and preparing their experiment.<br><br>**Day 3**: Students will have time to perform their experiment. Materials will be provided if needed.<br><br>**Day 4**: Students will have time to perform and complete their experiment, if needed. If not they will start their tables and graphs.<br><br>**Day 5**: Students will be completing their tables and graphs as well as writing their conclusion to describe if their experiment supported their hypothesis or not. | |

| **Elicit Evidence**<br>*How will you gather evidence of student progress toward LG/ SC? How will students gather evidence of their own learning?* | **Interpreting Evidence Considerations**<br>*What misconceptions do you expect to see? What do you expect to see from your beginning, developing, consolidated, and extended learners?* | **Using the Evidence by Students & Teacher**<br>*What will you and students do to move learning forward?* |
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| I will collect evidence by looking at their experimental procedure to see if it matches their scientific question. They will also be providing a graph that reflects their learnings. Their interpretation of the data is another piece of evidence as well as their conclusion. | Students might not realize that there are more than one reason why trees are important. | We will create and have discussions to form an argument about how changes happening in the environment either caused or not caused by humans can affect biodiversity.<br><br>Useful site:<br>https://www.nwf.org/Trees-for-Wildlife/About/Trees-Make-a-Difference |

# Things to consider while planning.

## Involving Students in Learning Goals & Success Criteria

1. How will you share the lesson Learning Goals with students?
2. What strategies will you use to co-construct Success Criteria with students?
3. How will students engage with the Success Criteria during the lesson? *(e.g., during self-assessment, peer feedback, small group work, conferencing)*

## Planning for Eliciting & Interpreting Evidence

1. What are your sources of evidence during the lesson?
2. What will you be doing during evidence collection?
3. What will you communicate to students about how their learning will develop as they move towards the Learning Goal?

4. What are common misconceptions students have about this content?
5. What is the range of student performances that you are expecting in this lesson? What does learning look like at emerging, maturing, and consolidated levels?
6. How will students be engaged in interpreting evidence?

## Planning for Responsive Actions by Students & Teachers

1. Anticipate the immediate pedagogical actions that you might make.
2. How will you support students to provide effective peer feedback in this lesson?
3. What routines will you use to support your students to conduct effective self-assessment?

## Planning for students emotional supports

1. Model within the lesson examples of self-awareness and responsible decision making for students.
2. Implement ways to monitor student's relationship skills and social awareness within lessons and peer collaboration opportunities.
3. How can this lesson foster a student's social awareness and self-management of their emotions and behaviors?