**Learning Journal Assignment and Instructor Guide on Citizen Science**

**Learning Journal Assignment**

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Listen to the Podcast, apply your knowledge and answer the following constructive questions

Topic of Podcast – **Citizen Science**

Podcast Link - <https://jphilgibsonlab.oucreate.com/uncategorized/citizen-science-037/>

Answer the below question without listening to the Podcast.

1. Define citizen science and what strategies you employ at your institution /courses to educate students about Citizen Science.

Answer the questions below after listening to the Podcast and your previous knowledge

1. Which citizen science approach – do you find to be more effective for your course and why?

2. List the differences between online citizen science and in-person citizen science.

3. Citizen science activities in face-to-face learning environments, synchronous learning environments, and asynchronous learning environments are used to engage students. How are these learning environments used to engage students in citizen science activities?

4. Briefly describe or create an infographic outlining a lecture plan or project plan explaining how learning environments—face-to-face, asynchronous, and synchronous—can be best utilized for citizen science activities.

5. The learning activities and tools are used to engage students. Think of ways you will integrate the appropriate learning strategies to engage students in a Citizen Science.

6. Analyse the findings of learning outcomes of Citizen Science in different learning environments, you have previously read or integrated and then discuss possible explanations for these differences.

7. Can you think of additional ways to engage students in citizen science at your institution besides designing citizen science activities and utilizing tools?

8. Summarize the Podcast.

**Instructor Guide**

**Pre-Implementation of Citizen Science**

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| Instructor will | Student will |
| **Inquiry Based Learning**: Instructor will engage students in stump your partner activity i.e. ask students to think and write a challenging question. | **TASK** - Students will use the available resource like books, research articles to think and search for a challenging question |
| **Exploration**: Instructors will give students the opportunity to read the instructions of Citizen Science activity to identify the components of citizen science activity. | Students will independently and then in peer interaction will explore the citizen science activity guide. |
| **Share out** – Instructor will conduct one word and one-sentence summary activity by selecting a component of citizen science activity. | Students will move around the component and then explain the function as a share out after discussion with the group members. |

**Implementation of Citizen Science**

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| Instructor will | Student will |
| **Group Activity**: Instructors will engage students in team work i.e. ask students to take up different leadership roles to complete the tasks. | **TASK** - Students will use the discuss, plan and executive the teamwork. Record the data for organization, analysis and presentation.  |
| **Self-Documentation** – Instructors will then ask each student to use self-documentation tools like Google, MS Sheet etc to create evidence of each member learning outcomes. | Each student will take individual work evidence as a screenshot or image to reflect on their understanding. |

**Post- Implementation of Citizen Science**

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| Instructor will | Student will |
| **Evaluation** -Instructor will create a gallery walk so that students can submit their individual and group work.- Instructor will then organize a mini- colloquium so that each group gets the opportunity to share their learning outcomes. For example if there were four groups then two groups present and two groups move to the group presenting to listen and ask questions. And then they move to the second group. Finally, the two groups which did not present – they get the opportunity to present and each group which presented earlier moves around to each group to ask questions to the presenting group. | **-** Students will then submit their individual and group learning evidence to group leader for presentation on board or power point slides to be shown on small screen television.Students will then present - each member of the group gets the opportunity to say something in coherence.- Students will then move to other groups to listen and ask questions. |

**Reflection of Citizen Science**

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| Instructor will | Student will |
| **Self-reflection**: Instructor will engage students to reflect on the Citizen activity. | TASK – Each student will write the reflection including what better they could have done. |
| **Group reflection** – Instructors will then engage each group to reflect on the Citizen Science Activity. | Each group will then work on to reflect what better roles they could have taken in Citizen Science activity. |