**Shap, Shap, Chaparral**:

an exploration of the ecology (including biodiversity and abundance) of plants and animals in the chaparral ecosystem adjacent to our school, HTH Chula Vista in southern California.

**Collaborative class theme**

Ecology!!! Tim’s class will investigate ecology through an art lens (Colter Jacobsen - Walking Art). Mr. Nick’s class will investigate ecology through ecology of our local chaparral ecosystem.

**Overview**

Students will explore our local chaparral ecosystem as ecologists through hands-on minds-on experiential learning! This means that two days per week (Tuesdays and Wednesdays) you as ecologists will be in our adjacent chaparral ecosystem investigating the plants and animals that exist in our own backyard. All students will research the biodiversity and abundance of plants and one of four classes of animals (1. Reptiles/Amphibians, 2. Birds, 3. Mammals, or 4. Insects).

**Essential question(s)**

* How can we become stewards of our local chaparral ecosystem through studying the ecology of this systems’ vegetation, reptiles/amphibians, birds, mammals, and insects?
  + How many of these organisms use our study area (i.e. abundance)?
  + How many species exist in our study area (i.e. biodiversity)?
  + What are the interactions that take place between these organisms, these organisms and their environment, and these organisms and people?

**Curriculum Topics**

* Ecology
* Taxonomy

**Student groupings**

* Field research: two students per group -- matched according to class of animal interests.
* Final product: four students per group -- matched according to class of animal and final product interests.

**Student specialties**

* Field research (two specialties per student):
  + Photographer: three photos per organism (different angles -->whole organism, front, back, sides).
  + Data manager: field data (Excel spreadsheet) and photos.
  + Artist: one labeled (key features) sketch per organism.
  + Final product coordinator: product plan is clear and concise and deadlines are met.
* Final product specialties will be determined according to each final product group and Mr. Nick.

**Final products**

Students will brainstorm, draft, and pitch their final product ideas to classmates and Mr. Nick. Final product student groups of four will be joined according to class of animal and final product interests. Student-produced rubric(s) and clear benchmarks/deadlines will be created to ensure time for refinement and the completion of final products by Winter Exhibition (12/4/14).

\*Final products may be represented physically (e.g. a chaparral food-web mandala) and/or activity-based (e.g. a presentation to the City of Chula Vista).

**Process (Project Timeline)**

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| Week | Experiences and Curriculum Topics |
| W1: Aug 25 | - Welcome to your Junior year!  - Introductions, get-to-know-you games, and activities.  - WiLD Wednesday!! – wear outdoor clothes, bring a sack lunch, water, sunscreen…  - Building classroom culture. |
| W2: Sept 1 | **- 9/1 - Labor Day (no school)**  - Principles of Ecology (Chapter 13)  - Launch project *Shap, Shap, Chaparral --* WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W3: Sept 8 | - Classification and Diversity - the importance of scientific nomenclature (Ch. 17 – 17.1, 17.2, and 17.4).  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - Final product brainstorm  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W4: Sept 15 | **- 9/15 - Staff day (no school)**  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - Exam 1 (Ecology and Classification) review and study guide.  **- 9/17 - Open House**  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday.  - 9/19 – Museum of Contemporary Art field trip (Humanities). |
| W5: Sept 22 | - Exam 1 – Ecology and Classification  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  **- 9/24 - Minimum day (staff day)**  - Final product plan (rubric and deadlines/benchmarks) due  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W6: Sept 29 | - Ecology – Interactions in Ecosystems (Ch. 14).  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - 10/2 California Wolf Center (CWC) field trip – all expenses covered! Please bring a sack lunch.  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W7: Oct 6 | - Ecology – Interactions in Ecosystems (Ch. 14, continued).  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  **- 10/10 - Fall holiday (no school)** |
| W8: Oct 13 | **- 10/13 - Staff day (no school)**  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  **- 10/15 - PSATs (morning), SLCs (afternoon)**  **- 10/16 and 10/17 - SLCs (minimum days)** |
| W9: Oct 20 | - *Shap, Shap, Chaparral* project work time (data analysis and project products)  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W10: Oct 27 | - Comparative Ecology - Marine Ecosystems (Ch. 15, section 15.4)  - Tuesday field research – Bring water and snacks, wear outdoor clothes…  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  - *Shap, Shap, Chaparral* data analysis and project presentation critique and refinement.  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday.  **- 11/1 - *Dia de Los Muertos* Exhibition (off campus only)** |
| W11: Nov 3 | - 11/3 - 11/4 Dana Point Ocean Institute overnight field trip – all expenses covered!  - *Shap, Shap, Chaparral* data analysis and project products critique and refinement.  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W12: Nov 10 | **11/11 - Veteran’s Day (no school)**  - *Shap, Shap, Chaparral* data analysis and project products critique and refinement.  - WiLD Wednesday!! – Bring a SACK LUNCH and water, wear outdoor clothes…  **11/14 - Advisory Olympics** |
| W13: Nov 17 | - Human Impact on Ecosystems (Ch. 16, sections 16.4 and 16.5)  - *Shap, Shap, Chaparral* data analysis and project products critique and refinement.  - Weekly Personal Reflection (WPR) – it is required to share your WPR with your parent(s) and obtain their signature. WPRs are turned in every Monday. |
| W15: Nov 24 - 28 | **Thanksgiving Break - Enjoy Family and Friends!!** |
| W16: Dec 1 | - Exam 2 (Interactions in ecosystems and Human Impact) review and study guide.  - *Shap, Shap, Chaparral* final products due!  **12/3 - Minimum day (staff day)**  **12/4 - Winter Exhibition** - potential final product presentations! |
| W17: Dec 8 | - Exam 2 – Interactions in ecosystems and Human Impact  - Presentations of Learning (POL) preparation |
| W18: Dec 15 | - Presentations of Learning (POL) preparation  **- 12/16 - 12/19 - POLs (12/19 is a minimum day)** |
| W19: Dec 22 - Jan 4 | **Winter Break - Enjoy Family and Friends!!** |

**Our Weekly Routines**

Mondays: Honors and field research and final product preparation.

Tuesdays: Field research (one POD at a time and switch time of day each week).

Wednesdays: WiLD Wednesdays (two hours of field research and two hours of activities at the

lake). BRING YOUR LUNCH!

Thursdays: In-class research analysis, data entry, and final product preparation.

Fridays: In-class Weekly Personal Reflections (WPRs), research analysis, data entry, and

final product preparation.