

Biology Boot Camp Schedule

Day 4: Energy Processing

Supplies

- KEVA planks
- CO₂ and O₂ probes if we have them
- Colored mini marshmallows
- Toothpicks
- Supplies for Photosynthesis lab (Doc: ADE Photosynthesis lab materials)

Schedule

AM: Nature center

8:00 – 8:30: Field Notebook

8:30 – 9:00: Lecture: Laws of thermodynamics (heterotrophs/autotrophs). Dr. Hempsey

9:30 – 10:30: KEVA Plank building activity to illustrate laws of thermodynamics;
Marshmallow/toothpick activity to illustrate chemical reaction ($H_2 + O_2 \rightarrow H_2O$)

10:30 - 12:00: Walk to spring: Streamside instruction on photosynthesis and cellular respiration (Pat Lopez); Field work: measuring O₂ and CO₂ in the water

12:00 – 1:00: Lunch – on your own

Bring lunch remains for compost bin

PM: NPC

1:00 – 1:50: Lecture: photosynthesis, cellular respiration, ATP, carbon cycle. Pat Lopez. *Location: Symposium*. Video: Where does the mass of a tree come from?

1:50 – 2:00: Measure seedling's growth and record details. *Location: PC 102 & PC 104*

2:00 – 4:30: Photosynthesis lab

4:30 – 5:00: Minute paper: When someone loses a lot of weight, where does the weight go?