

Patterns Summer Workshop

June 28 - June 29, 2016

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Start in ROOM: ISB 329

9:00 - 9:30 WELCOME! – Introductory Presentation

9:30 – 10:00 Introduction to ADI

10:00 - 10:30 **Pattern: Variation in a Population**

- *Biology*: ADI investigation of color variation in a population of mealworms
- *Google Doc* – With group's data

10:30 – 10:45 Break

10:45 – 12:00 **Pattern: Branching**

- Branching power point
- *Biology*: ADI villi
- *Biology*: Root Investigation
- *Physics*: Heleshaw Cell
- *Technology*: Tokyo Train System
- Brainstorm --branching as the efficient distribution of resources/energy Physics, Biology, Technology

12:00 – 1:00 Lunch

Move all items to ROOM: ISB Lab 364

1:00 – 1:45 **Pattern: Buckling**

- *Biology*: ADI Tree Investigation
- *Google Doc* – With group's data

1:45 – 4:00 **Pattern: Wrinkling**

- Benny's research Presentation
- *Physics/Technology*: Metrology lab (Menon nano-sheet activity)

2:30 – 2:45 Break

4:15 – 4:30 Wrinkled Peas Inquiry Prelab: Weigh then soak peas

June 29, 2016

Start in ROOM: ISB 321

9:00 – 9:45 Analyzing Data: Metrology Lab

9:45 – 10:00 RAPT-- strategy for pattern investigation

10:00 - 10:15: Break

10:15 – 11:00 **Pattern: Wrinkling**

- *Biology/Physics/Technology*: Much Ado About Wrinkling Activity

11:00 – 1:45 **Pattern: Wrinkling**

- *Biology*: Wrinkled Peas? Inquiry Lab Activities
 - Human Saliva activity

12:00 – 12:30 Lunch

- Osmosis and Dialysis Tubing Activity
- Analyzing Dry and Imbibed weights of wrinkled and smooth pea seeds - google spreadsheet
- Inquiry Lab—Putting it All Together, What makes wrinkled peas?

Move all items to ROOM: ISB 364

1:45 – 2:45 Debrief Wrinkled Pea Inquiry Lab
Brainstorm and sharing ideas: