

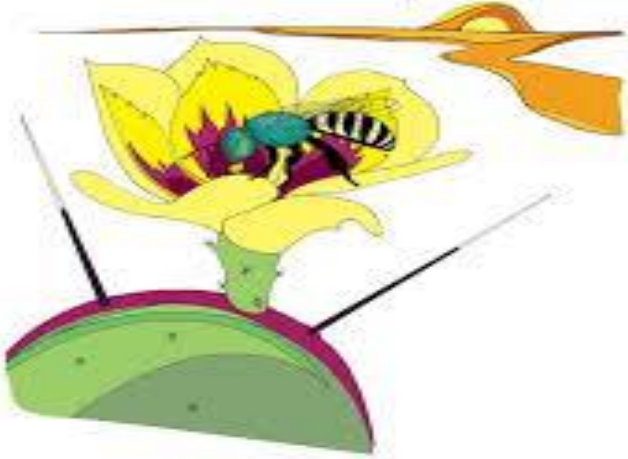


Making Bugs!

M2C3 (2018)



ARIZONA INSECT FESTIVAL 2017



UNIVERSITY OF ARIZONA: Environment & Natural Resources 2 Building
Sun, Oct 1st 10am - 3pm
Get a handle on facts about insects and all the fun and facts that go with them!
Free event & field parking on-site by garage
@AZInsectFest #AZInsectFest2017

Have you ever been to the Insect Festival?

What do you know about the festival?

What kinds of activities do they have?



Fall Crafts

- A popular activity at the festival is "Making Bugs"
- Have you ever one of these "bugs"?
- How did you make them?
- What materials did you use?
- What body parts did you include?



Example “Bugs”: Insects and Spiders

- In the “Make a Bug” activity, you could make **insects** or **spiders**.



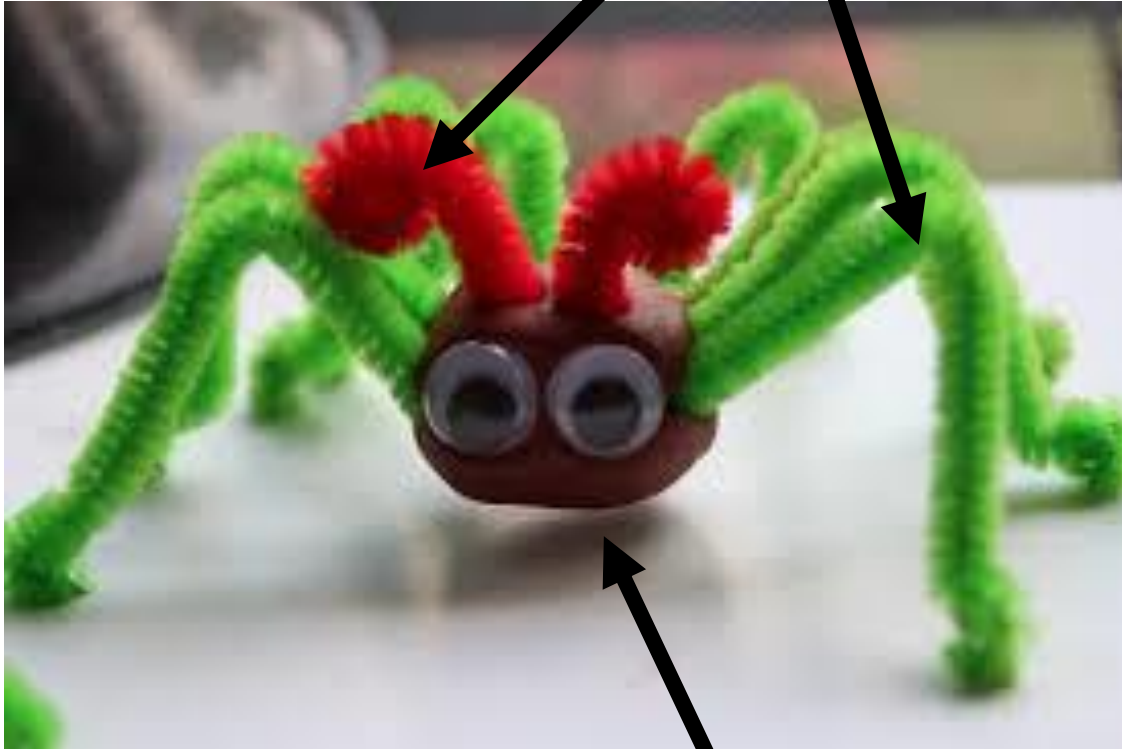
These are insects.
What do you know about insects?
What body parts do they have?

These are spiders.
What do you know about spiders?
What body parts do they have?



What materials would you need to make this “bug”?

Fuzzy Stems / Pipe Cleaners



Clay Body

What materials would you need to make this bug?

Making “Bugs”!

- Your class wants to “make bugs” for a special craft.
- You get to help order supplies.
- You need to figure out: how many packages of fuzzy stems and how many packs of clay/play dough/egg cartons we will need so that every student in your class can make a “bug”.



What do you need to know to figure this out?

Introduction to Making Bugs

[Launch Making Bugs Movie.mov](#)

These are the fuzzy stems we will buy.



This is the clay we will buy



What do you notice? What do you wonder?

These are the fuzzy stems we will buy.



This is the clay we will buy



What do you notice? What do you wonder?

These are the fuzzy stems we will buy.



This is the play dough we will buy.



What do you notice? What do you wonder?

These are the fuzzy stems we will buy.



This is the play dough we will buy.



What do you notice? What do you wonder?

These are the fuzzy stems we will buy.



These are the egg cartons we will use.



What do you notice? What do you wonder?

These are the fuzzy stems we will buy.



These are the egg cartons we will use.



What do you notice? What do you wonder?

Warm Up: You get to design a bug! (10 minutes)

- How many whole fuzzy stems do you need to make one “bug”?
- How many sticks of clay / containers of play dough / egg carton sections do you need to make one “bug”?
- Use these pictures and the materials at your table to estimate.
- Also draw a bug, and use your drawing to help you estimate.
- Explain how you know that your estimate is accurate.





For example:
This spider has 8 legs.
I used **one-half of a fuzzy stem**
for each leg.
How many **whole fuzzy stems**
do I need for this spider?

One half of the stem for one leg

One half of the stem for another leg

Warm Up: Sharing Bug Designs

- How many whole fuzzy stems do you need for one “bug”?
 - How many sticks of clay do you need for one “bug”?
 - Discuss differences in models.
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- OPTIONAL: Class Line Plot (Number of Fuzzy Stems, Number of Sticks of Clay)
 - OPTIONAL: Reach Class Consensus on materials needed for one “bug”

Making “Bugs”! PART 1

- How many packages of fuzzy stems will your class need so that every student can make a “bug”?
- Make a Plan
- You want to have enough for everyone but not a lot of leftover.
- What do ***you know*** that can help you figure this out?
- What do you ***need to know***?
- What do you ***need to assume***?
- Use pictures, numbers, equations and words to show that your plan will work.



Making “Bugs”! PART 1

- How many packages of fuzzy stems will your class need so that every student can make a “bug”?
- Make a Plan
- You want to have enough for everyone but not a lot of leftover.
- What do *you know* that can help you figure this out?
- What do you *need to know*?
- What do you *need to assume*?
- Use pictures, numbers, equations and words to show that your plan will work.



Making Bugs! PART 2

- How many packages of clay will your class need so that every student can make a bug?
- Make a Plan
- You want to have enough clay for everyone, but not a lot of leftover.
- What do *you know* that can help you figure this out?
- What do you *need to know*?
- What do you *need to assume*?
- Use pictures, numbers, equations and words to show that your plan will work.



Making Bugs! PART 2

- How many packages of play dough will your class need so that every student can make a bug?
- Make a Plan
- You want to have enough clay for everyone, but not a lot of leftover.
- What do *you know* that can help you figure this out?
- What do you *need to know*?
- What do you *need to assume*?
- Use pictures, numbers, equations and words to show that your plan will work.



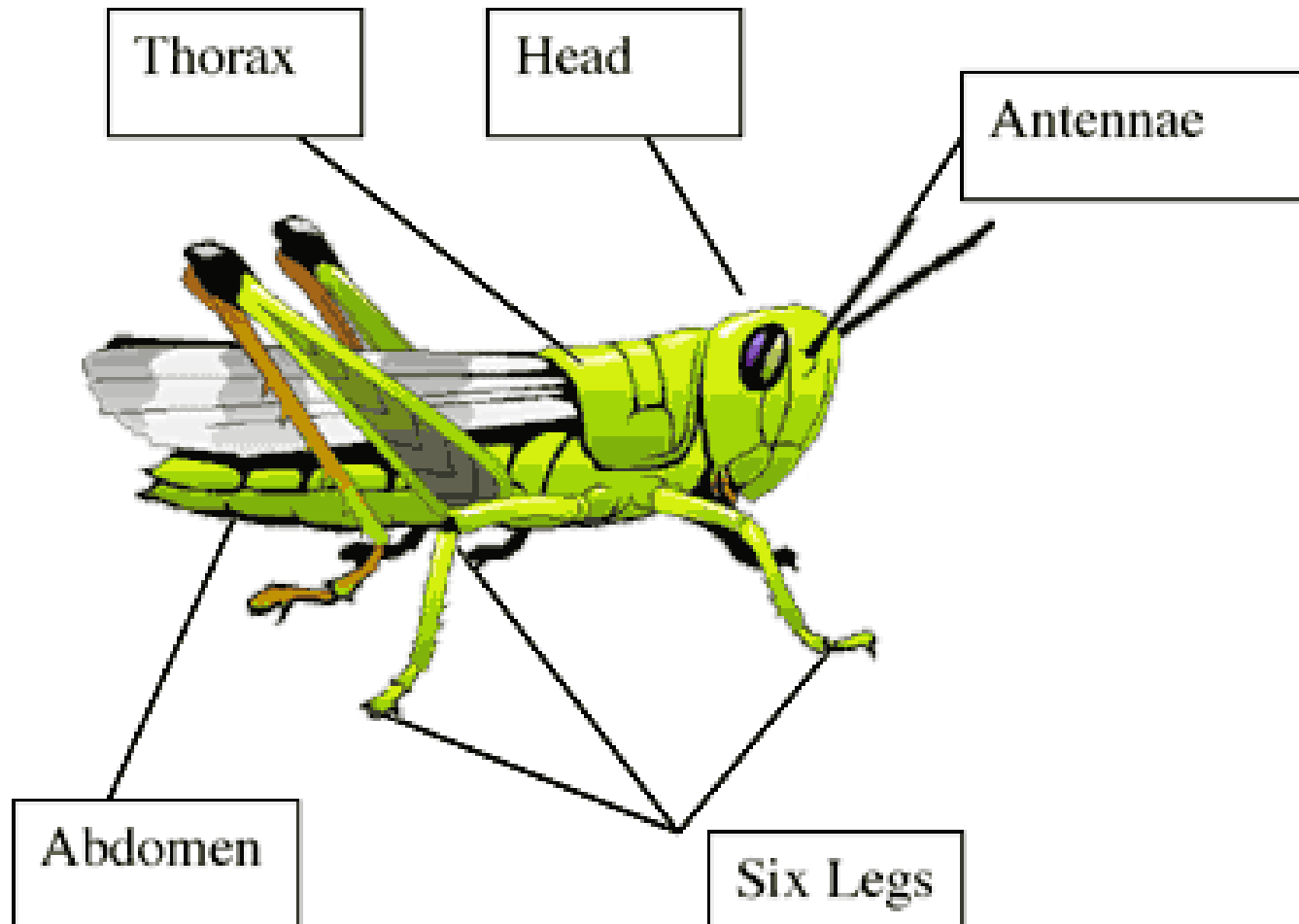
Making Bugs! PART 2

- How many egg cartons will your class need so that every student can make a bug?
- Make a Plan
- You want to have enough clay for everyone, but not a lot of leftover.
- What do ***you know*** that can help you figure this out?
- What do you ***need to know***?
- What do you ***need to assume***?
- Use pictures, numbers, equations and words to show that your plan will work.



Part 1 and 2: Sharing Plans

Optional Images: Parts of an Insect



Optional Images: Parts of a Spider

