

Soybean aphids and soybean plants

| RESEARCH QUESTIONS |
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| <p>REPRODUCTION OBSERVATIONAL QUESTION: How do soybean aphids reproduce?</p> |
| <p>GENETICS TESTABLE QUESTION: Which plant (leaf) is aphid resistant? <i>(Follow up: How do scientists do this and predict what the plants will be?)</i></p> |
| BACKGROUND RESEARCH |
| <p>Throughout the investigations and using different resources, record any background research on reproduction, genetics, soybean aphids and their life stages, soybean plants, etc. Write some important ideas/vocab here to help you. This will be important for the justification of your claim later on.</p> |
| <p>REPRODUCTION OBSERVATIONAL QUESTION: HOW DO SOYBEAN APHIDS REPRODUCE?</p> |
| <p>GENETICS TESTABLE QUESTION: Which plant (leaf) is aphid resistant? <i>(Follow up: How do scientists do this and predict what the plants will be?)</i></p> |
| GENERAL OBSERVATIONS |
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| LARGE APHIDS (DRAW AND DESCRIBE) | SMALL APHIDS (DRAW AND DESCRIBE) |
|----------------------------------|----------------------------------|
| | |

DATA COLLECTION

SOYBEAN PLANT SPECIMEN CODES __A AND __B

| DATE | SAMPLE A | | | SAMPLE B | | |
|------|----------|-------|---------------|----------|-------|---------------|
| | Large | Small | Dead or Other | Large | Small | Dead or Other |
| | | | | | | |
| | Large | Small | Dead or Other | Large | Small | Dead or Other |
| | | | | | | |
| | Large | Small | Dead or Other | Large | Small | Dead or Other |
| | | | | | | |
| | Large | Small | Dead or Other | Large | Small | Dead or Other |
| | | | | | | |
| | Large | Small | Dead or Other | Large | Small | Dead or Other |
| | | | | | | |

| DATA ANALYSIS & INTERPRETATION | | CLAIM |
|--|---------------------|---|
| WIS (What I see: patterns in data) Analyze the data. What happened with the numbers? Change? Comparisons? | | Reproduction observational question: How do soybean aphids reproduce? |
| Changes in SAMPLE A | Changes in SAMPLE B | Claim (use WIS/WIM) + justification (use background research): |
| | | |
| WIM (What it means) (Interpret that. What do those patterns tell us?) | | |
| Reproduction: | | Genetics testable question: Which plant (leaf) is aphid resistant? <i>(Follow up: How do scientists do this and predict what the plants will be?)</i> |
| Genetics: | | Claim (use WIS/WIM) + Justification (use background research): |