

Insect Logic Puzzle

Grade Level: 4-8

Lesson Overview

A logic puzzle is a problem that can be solved using deductive reasoning. A deduction is a logical conclusion drawn from two or more true statements. One common type of logic puzzle involves a tool known as an elimination grid. In this activity, students will learn about insects then use an elimination grid to solve a puzzle.

Student Objectives

1. Practice logical thinking skills utilizing charts to draw conclusions based on information provided while learning about insects.

Materials

- ✓ Insect Logic Puzzle Worksheet

Procedure

Allow students time to complete the Insect Logic Puzzle and then compare answers.

If you have not given your students a logic puzzle previously, you may want to help them understand the steps in finding an answer. Please keep in mind that not all of the information is given. Students should use the information available and the process of elimination to find the answers.

Standards

Illinois Mathematics Standard

7.SP.8b Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams.

Illinois English Language Arts Standard

RI 1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

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These mAGic lessons are designed to bring agriculture to life in your classroom. They address the Illinois Learning Standards in math, science, English language arts and social studies.

Insect mAGic project update writers/reviewers: Rhodora Collins – Dekalb County; Suzi Myers – Kane County; Connie Niemann – Montgomery County; Debbie Ruff – Livingston County; Jennifer Waters – Sangamon County; and Dawn Weinberg – Hancock County.

Name _____

Insect Logic Puzzle Worksheet

Mrs. Myers asked her class to do a report on insects. Use the clues below to find out which insect each student chose for their report.

The chart below helps you identify what you've learned from each clue. In the square where the vertical and horizontal meet is where you mark your possible answers. Read each clue and record the information on the chart. When you find a true match put a yes in the appropriate box. When you prove a combination false, put an x in the box. Continue until you find all the answers.

When finished, fill in the blanks at the bottom of the page to tell who reported on what insect.

| Insect | Jessica | Rick | George | Kerri | Emma | Nicholas |
|-----------|---------|------|--------|-------|------|----------|
| | | | | | | |
| Ladybug | | | | | | |
| Dragonfly | | | | | | |
| Monarch | | | | | | |
| Beetle | | | | | | |
| Wasp | | | | | | |
| Centipede | | | | | | |

1. Kerri chose an insect that cannot fly, has many legs and lives in rotten wood, leaf litter or other sheltered places.
2. Rick's insect likes to eat Milkweed plant leaves and flies to Mexico. It is also part of the 2nd largest order of insects with 112,000 species.
3. Jessica chose a large hard-shelled insect, which is part of the largest order of living things with about 290,000 species in the world.
4. George wanted to bring in an example of his insect that is part of the order ranking 3rd in size in the world with 105,000 species, but was afraid of being stung.
5. Nicholas's insect has very large wings that it holds out flat when it rests and was named after a fire-breathing animal in folklore.

Jessica reported on _____.

Rick reported on _____.

George reported on _____.

Kerri reported on _____.

Emma reported on _____.

Nicholas reported on _____.

Insect Logic Puzzle Worksheet ANSWER KEY

Mrs. Myers asked her class to do a report on insects. Use the clues below to find out which insect each student chose for their report.

The chart below helps you identify what you've learned from each clue. In the square where the vertical and horizontal meet is where you mark your possible answers. Read each clue and record the information on the chart. When you find a true match put a yes in the appropriate box. When you prove a combination false, put an x in the box. Continue until you find all the answers.

When finished, fill in the blanks at the bottom of the page to tell who reported on what insect.

| Insect | Jessica | Rick | George | Kerri | Emma | Nicholas |
|-----------|---------|------|--------|-------|------|----------|
| Ladybug | X | X | X | X | YES | X |
| Dragonfly | X | X | X | X | X | YES |
| Monarch | X | YES | X | X | X | X |
| Beetle | YES | X | X | X | X | X |
| Wasp | X | X | YES | X | X | X |
| Centipede | X | X | X | YES | X | X |

1. Kerri chose an insect that cannot fly, has many legs and lives in rotten wood, leaf litter or other sheltered places.
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5. Nicholas's insect has very large wings that it holds out flat when it rests and was named after a fire-breathing animal in folklore.

Jessica reported on Beetle.

Rick reported on Monarch.

George reported on Wasp.

Kerri reported on Centipede.

Emma reported on Ladybug.

Nicholas reported on Dragonfly.