# Evaluating Arguments Checklist

## Argument for: _____

## Background

A scientific argument should have a clear claim, supporting evidence, and reasoning that connects the evidence to the claim. It should be based on facts, not feelings.

## Instructions

1. Draw a box around the claim. A claim is a statement or conclusion that answers the original question.

2. Underline the evidence. Evidence is observations or data that support the claim.

3. Squiggly-underline the reasoning. Reasoning is the justification for why the evidence supports the claim. It contains logic and relevant science ideas.

4. Use the checklist below to evaluate the parts of the argument. If you check "no," write in a suggestion for improvement.

| Yes | No | CLAIM | Notes / Suggestions for improvement |
|-----|----|-------|-------------------------------------|
| ☐ | ☐ | Is there a clearly stated claim? | |
| ☐ | ☐ | Is it consistent with all of the available evidence? | |
| ☐ | ☐ | Is it the simplest conclusion based on all of the available evidence? | |
| | | **EVIDENCE** | |
| ☐ | ☐ | Is there enough evidence to support the claim? | |
| ☐ | ☐ | Is all of the evidence relevant to the claim (there are no extra facts)? | |
| ☐ | ☐ | Do the data collection, analysis, and interpretation seem reasonable? | |
| | | **REASONING** | |
| ☐ | ☐ | Is there enough reasoning to justify why the evidence supports the claim? | |
| ☐ | ☐ | Is the reasoning related to the claim? | |
| ☐ | ☐ | Is it related to the evidence? | |
| ☐ | ☐ | Is it consistent with accepted science ideas? | |
| ☐ | ☐ | Does it use facts, not feelings (system 2 thinking, not system 1)? | |