Name: _____ Date: _____ Section: _____

Model Evaluation Form

Models help us understand complex systems. Today you'll evaluate the model you used like a scientist would! Remember that all models have limitations. The goal is to understand how models can be useful tools for scientific understanding. This evaluation helps you practice key science skills and understand how models can change with new evidence.

NGSS Alignment:

- SEP: Developing and Using Models

- CCC: Systems and System Models

- Nature of Science: Models can change with new evidence

Model Name: _____

Model Location: _____

Part A: Understanding This Model (MAPP Framework)

1. How is the model shown? (MODE)

Check all the ways this model presents information:

- ☐ Pictures or diagrams
- ☐ 3D objects you can touch
- ☐ Symbols or equations

- ☐ Words or comparisons
- ☐ Flat (2D) representation
- ☐ Has depth (3D)
- ☐ Stays the same (static)
- ☐ Moves or changes (dynamic)
- ☐ On a computer/digital
- ☐ You can interact with it

Describe what you see/do: _____

_____

2. How realistic is it? (ACCURACY)

What's RIGHT about this model? (List 2 things)

1.

_____

2.

_____

What's SIMPLIFIED or LEFT OUT? (List 2 things)

1.

_____

2.

_____

3. What's it for? (PURPOSE)

What does this model help you do? Check all that apply:

- ☐ Learn new concepts

- [ ] See how something works
- [ ] Predict what will happen
- [ ] Visualize things we can't see
- [ ] Test ideas
- [ ] Compare to familiar things
- [ ] Show sizes or scales
- [ ] Simulate real processes

Main purpose: _____

4. Will this model change? (PERMANENCY)

How established is this model in science?

- [ ] It's proven fact
- [ ] It's a strong theory with lots of evidence
- [ ] It's our current best explanation
- [ ] It's a new idea being tested
- [ ] It's one of several possible explanations

Why did you pick that? _____

_____

Part B: Thinking Deeper

5. Model Power & Limits

This model is GREAT for showing: _____

_____

This model CAN'T show: _____

_____

6. Make it Better!

If you could improve this model, what would you change?

Change #1:

_____

Why?

_____

Change #2:

_____

Why?

_____

Part C: Talk About It!

7. Team Discussion (10 minutes)

Get in groups of 3-4 students and discuss:

1. Did everyone classify the model the same way? What was different?

2. What's the coolest thing about this model?

3. What's the most frustrating thing about it?

Our group thinks the BEST thing about this model is: _____

_____

Our group thinks the BIGGEST problem is: _____

_____

8. Why Models Matter

Models are everywhere in science! With your group, discuss:

- Why don't scientists just study the real thing?

- Why might there be different models of the same thing?

- How do models change when we learn new things?

Write YOUR thoughts: _____

_____

_____

Part D: Connect & Share

9. Peer Review

Trade papers with a partner and discuss your evaluations.

Partner's name: _____

Something cool they noticed that I missed: _____

_____

A question I have after hearing their ideas: _____

_____

Part E: Reflection

10. Final Thoughts

Complete this sentence:

"Before today, I thought models were _____, but now I understand _____

_____"