## TEMPLATE FOR NV STEM MEETING WORKING GROUPS

First, choose <u>one</u> of the following evidence-based practices identified in the NRC report that will be the focus of your discussions:

- Capitalizing on students' interests and experiences
- Identifying and building on what students know
- Providing students with experiences to engage them in the practices of science and sustain their interest

For each evidence-based practice, discuss and write down responses to the following questions:

**Who has the *Expertise* in Practices?**

*Who* (meaning what person, team, or organization) *has expertise in how to implement <u>instructional strategies</u> related to this practice?*

| In my school… | In my district… | In my state… |
|---|---|---|
|  |  |  |

*Who has the expertise in how to implement <u>curriculum materials</u> related to this practice?*

| In my school… | In my district… | In my state… |
|---|---|---|
|  |  |  |

*Who has expertise in how to implement <u>assessment strategies</u> related to this practice?*

| In my school… | In my district… | In my state… |
|---|---|---|
| | | |

*Who has expertise in <u>designing and implementing professional development strategies</u> related to this practice?*

| In my school… | In my district… | In my state… |
|---|---|---|
| | | |

*Looking Across Categories, Reflect:*

- In what categories is expertise deepest? Where is it shallowest?
- How accessible is expertise to people who need it?
- What can you do to create new forums for expertise sharing?
- Who has the authority to help create new forums for expertise sharing that might be needed?

**Organizing for Improvement**

What is a way of expressing your goal for improving STEM practice that will resonate with people in authority to allocate resources for change?

Who needs to come together so that teachers have access to the expert people and organizations needed to support implementation of the practice?

What are existing venues (e.g., meetings), structures (e.g., professional development institutes), or positions (e.g., instructional coaches) that could be used to bring people together and support implementation of practices?

What is one immediate next step that I/we can take upon returning?

What is one longer-term step that I/we can begin to plan?

# Big Ideas to Facilitate the Prologue to Planning
# for Implementing New Practices

**Big Idea #1:**
*People sharing resources and expertise facilitates implementation.*

Most innovations are difficult to implement. They require new resources to facilitate teacher learning, accompanied by someone expert in the practice to help them use those resources well.

**Big Idea #2:**
*Expertise is needed for each side of the "instructional triangle."*

Teaching involves complex interactions among students, of students with teachers, and of students with materials. Teachers will need opportunities to learn about effective teaching practices (student-teacher interactions), curriculum implementation (teacher-materials interactions), and likely student responses to curriculum (student-materials interactions).

**Big Idea #3:**
*Diffusion happens through networks.*

Networks are the roadways along which expertise can be shared, and resources can be passed along from one person to another. Networks exert normative pressure to change as well.

**Big Idea #4:**
*Implementing new practices is like organizing a campaign in a social movement.*

Getting people to change requires enlisting the support of allies—both others who need to implement change and those who have authority to allocate resources to support implementation. This means thinking about what concerns these potential allies and what is likely to motivate those allies to action. It requires focused attention and a strong coalition of supporters to create change.