ACTIVE SCIENCE SESSION - Grade 3

Phase of the Learning Cycle	Summary	Questions that Guide Instruction	In the Notebook
Engage **SL.3.1, SL.3.1.A** **SL.3.1.B, SL.3.1.C** **SL.3.1.D**	• Focus question is introduced • Important terms are discussed and annotated • Prior knowledge or experience is elicited • A plan is developed collaboratively • Data collection tool is designed collaboratively and constructed by students	• **What terms in this question are important for us to consider?** • **If this is what we want to know, how can we use these materials to investigate?** • **What data do we need to collect?** • **How can we best organize the data?** • **What do you predict will happen when…?**	• Focus Question • Data collection tool
Investigate **SL.3.3, W.3.8** **L.3.5.C**	• Students engage with phenomena and work collaboratively to collect and record data, discuss findings and solve problems • Teacher asks higher level questions to deepen students' thinking and reasoning	• **What do you notice about…?** • **Why do you think …..?** • **What would happen if…?** • **How does this compare to….?**	• Data/observations collected and recorded
Make Meaning **SL.3.6, RI.3.3** **L.3.6**	• Data is reported • Graphs/charts/diagrams are made • Data is analyzed • Meaning is made from the experience • Concepts are constructed and discussed • New terms are introduced to word bank	• **What data do you have to share?** • **Did you notice any patterns or relationships?** • **How can we display this data in order to look for patterns?** • **Why do you think this happened?** • **Why do we think this makes sense?**	• Averages calculated • Graphs and/or class charts and diagrams are made
Apply and Extend **SL.3.1.B, SL.3.1.C,** **SL.3.1.D, SL.3.3,** **SL.3.6**	• Connections to a larger context are made • Real world applications of concepts are identified and discussed • *Embedded informational text(s) are used to extend and apply content (shared research)*	• **How might this information be used?** • **Why might this information be important?** • **What new questions can we ask?** • ***Does the reading support or refute our thinking/evidence?***	• *Information and thinking from informational text(s)or discussions is added to writing as appropriate*

CONSIDER PLACEMENT OF **FORMATIVE ASSESSMENT** FOR EACH LESSON

COMMUNICATION SESSION - Grade 3

Phase of the Learning Cycle	Summary	Questions that Guide Instruction	Use of the Notebook
Shared Review SL.3.4, RI.3.1, RI.3.3, L.3.6, L.3.1.J	• Concepts, patterns, graphs and new terms from the investigation are reviewed and discussed	**What did we do yesterday?** **What did we find out?** **Can you explain the pattern we observed in our data?** **What evidence supported our thinking?** **Why do you think this happened?** **Why might these ideas be important or useful?**	• Students bring notebook to discussion and actively use data and graphs to share their understanding.
Shared Writing SL.3.6, L.3.6	• Teacher models the thinking and organization of the writing by choosing relevant language frames • Students contribute ideas and data to formulate the writing piece • Writing piece is read aloud for clarity and revision	**What information or ideas do you think we need to share with other scientists?** **What words or phrases will help us describe the pattern/share data/add another idea/explain why we think this happens etc.?** **How do you think this sounds?** **Do you think any of these words or ideas need to be changed or moved?**	• Students use their data and graphs and class charts and diagrams to contribute the content of the writing piece
Scaffolding L.3.1.J	• Teacher removes shared writing and provides frames and/or guides that help students organize and articulate their own ideas • Relevant word bank words are brought to the foreground • Students annotate their own data to use as evidence • Student ideas are shared orally using frames	**What sentence frames or terms will help you communicate your ideas?** **What data will you use in your writing?** **Turn and talk to your partner to share your idea about….**	• Students highlight and/or annotate their data to identify the specific evidence they will use to support their thinking during their writing • Students orally rehearse using the frames and terms to articulate their own ideas
Independent Writing W.3.4, W.3.10	• Students write about what they have learned at the level of independence that they have achieved	**Is there a word or phrase on the board that would help you share that idea?** **Tell me what you want to say next.** **Be sure to include the idea/connection that you shared in our discussion.** **What data will you use to support that idea?**	• Students have their annotated data open and are using the scaffolding to communicate their ideas independently

Adapted from Fulwiler, B.R. (2007). *Writing in Science.* Portsmouth, New Hampshire: Heinemann.