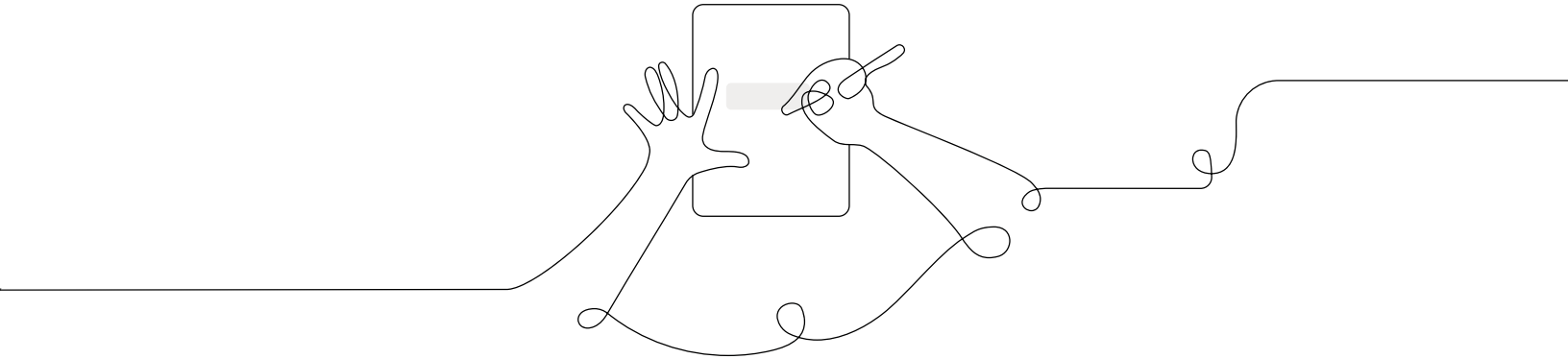


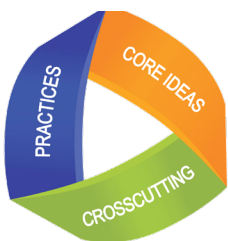
AmplifyScience

Participant Notebook

3-Dimensional Learning in the Amplify Science
K-5 Curriculum



NYSSL reference sheet



3-D learning engages students in using scientific and engineering practices and applying crosscutting concepts as tools to develop understanding of and solve challenging problems related to disciplinary core ideas.

Science and Engineering Practices

- | | |
|---|--|
| <ol style="list-style-type: none">1. Asking Questions and Defining Problems2. Developing and Using Models3. Planning and Carrying Out Investigations4. Analyzing and Interpreting Data | <ol style="list-style-type: none">5. Using Mathematics and Computational Thinking6. Constructing Explanations and Designing Solutions7. Engaging in Argument from Evidence8. Obtaining, Evaluating, and Communicating Information |
|---|--|

Disciplinary Core Ideas

Earth and Space Sciences:

ESS1: Earth's Place in the Universe
ESS2: Earth's Systems
ESS3: Earth and Human Activity

Life Sciences:

LS1: From Molecules to Organisms
LS2: Ecosystems
LS3: Heredity
LS4: Biological Evolution

Physical Sciences:

PS1: Matter and its Interactions
PS2: Motion and Stability
PS3: Energy
PS4: Waves and their Applications

Engineering, Technology and the Applications of Science:

ETS1: Engineering Design
ETS2: Links among Engineering Technology, Science and Society

Crosscutting Concepts

- | | |
|---|--|
| <ol style="list-style-type: none">1. Patterns2. Cause and Effect3. Scale, Proportion, and Quantity4. Systems and System Models | <ol style="list-style-type: none">5. Energy and Matter6. Structure and Function7. Stability and Change |
|---|--|

Lesson Planning Template

[Resources: Coherence Flowchart, Digital or Print Teacher's Guide, School Calendar]

Unit:	Lesson:	Date:
Unit Phenomenon:	Chapter Question:	Investigation Question:

[Resources: Lesson Brief (Overview, Standards)]

Lesson Purpose:
How do the activities in this lesson fit together to support students in achieving this purpose?
How does this lesson engage students in three-dimensional learning?

[Resources: Lesson Brief (Materials and Preparation, Unplugged, Digital Resources)]

What materials do you need to prepare?	What will you need to project?	Will students need digital devices?
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[Resources: Classroom Slides, Digital or Print Lesson Guide]

Use the prompts below to prepare to teach in the format that best fits your needs: 1) write responses directly into the template below, 2) download and annotate the Printable Lesson Guide, or 3) download Classroom Slides and add your responses in the Notes section.

Lesson Activity	How does each activity support students in answering the Investigation Question (or applying the key concepts to the Chapter Question)?	What teacher moves will you need to add to support students in your classroom (partner or grouping structures, additional modeling or scaffolding, space considerations)?	What might be challenging for your students? What additional supports can you plan for individual students? [Resources: Lesson Brief (Differentiation)]	Is there an opportunity to collect data about student understanding to inform instruction? How will you organize the data you collect?
Activity 1				
Activity 2				

Lesson Activity (con't)	How does each activity support students in answering the Investigation Question (or applying the key concepts to the Chapter Question)?	What teacher moves will you need to add to support students in your classroom (partner or grouping structures, additional modeling or scaffolding, space considerations)?	What might be challenging for your students? What additional supports can you plan for individual students? [Resources: Lesson Brief (Differentiation)]	Is there an opportunity to collect data about student understanding to inform instruction? How will you organize the data you collect?
Activity 3				
Activity 4				
Activity 5				

[Resources: Lesson Brief (Lesson at a Glance), Lesson Overview Compilation, School Schedule]

<p>How will teaching this lesson fit into your class schedule? Will you need to divide the lesson into activities over several days?</p>	<p>If the lesson is divided into activities over several days, when will students have the opportunity to make sense of the evidence collected and apply it back to the Investigation Question and/or Chapter Question?</p>
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Additional Amplify Resources

Program Guide

Additional insight into the program's structure, intent, philosophies, supports, and flexibility.

my.amplify.com/programguide

Amplify Help

Frequently updated compilation of articles with advice and answers from the Amplify team.

my.amplify.com/help

Family Resources Site

<https://amplify.com/amplify-science-family-resource-intro/>

Back to School Teacher Site

Additional information about the program, a downloadable pre-launch checklist, and articles about how to get help when planning and delivering instruction.

<https://amplify.com/programs/bts-science/amplify-science-bts-page-teachers/>

Amplify Support

Contact the Amplify support team for information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-7PM EST.

Email: scihelp@amplify.com

Phone: 800-823-1969

Or, reach Amplify Chat by clicking the  icon at the bottom right of the digital teacher's guide.

When contacting the support team:

- Identify yourself as an Amplify Science user.
- Note the unit you are teaching.
- Note the type of device you are using (Chromebook, iPad, Windows, laptop).
- Note the web browser you are using (Chrome or Safari).
- Include a screenshot of the problem, if possible. Copy your district or site IT contact on emails.

Amplify Science

