

First Grade Informational Model Planning Form

Date: April/May

Quarterly Benchmark: Quarter 4

Topic: How to make mortar

Audience: 1st Grade Writers

Standards & Curriculum Connections:

1.W.2 – Informational Writing

1.W.7 – Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).

Science Kit – A Sticky Situation: Designing Walls ([Scientific Modeling in the Early Grades](#))

Engineering & Content Vocabulary (TG pg. 22) – engineer, design, process, materials, mixture, clay, mortar, durable

Grammar – Past Tense Verbs (Reach Unit 7)

Phonics – /r/ controlled vowels (/ar/, /or/, /er/, /ir/, /ur/) (Reach Unit 7)

High Frequency Words – Green Card words

Process

- Uses an organized plan to include I/B/C
- Plans with some words and graphics

Surface Features

- 6 - 8 sentences in length
- Uses knowledge of more complex letter/sound relationships
- Contains correctly spelled “Green Card” words and environmental print

Content

- Writing is sequential and matched to plan
- Writes detailed factual information relevant to the topic
- Contains a concise title

Background Information/Lessons:

- **Build background knowledge** – Review previous *How to* mentor texts, *How to* models and student writing, **A Sticky Situation - Prep Lesson and Lessons 1-3**
- **Review** – **Activities 3-2** Properties of Dry Earth Materials, **3-3** Properties of Wet Earth Materials, **3-4 & 3-5** Mortar Tests
- **Discuss** - Properties of a strong mortar (sticky, strong, shouldn’t crack, should hold the bricks together) (TG pg. 94)
- **Introduce Focus Question** – How do you make a strong mortar?

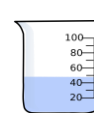
Introduction

- Engineering design process
- Create strong mortar



Body

1 – Materials – soil, sand, clay, water



2 – Measure – 3 scoops

3 – Add water slowly
Like cake frosting



#4 – Test

Conclusion

- Engineers improve designs
- Make changes



The Writing:

How to Make Mortar

Using the engineering design process, we can make mortar. Follow these steps to create and test your own mixture.

Step 1 – Gather your materials. You will need soil, sand, clay and water.

Step 2 – Choose 3 scoops of earth materials, such as 1 scoop soil and 2 scoops clay.

Step 3 – Add water slowly and mix until the materials are combined. It should be the consistency of cake frosting.

Step 4 – Test your mixture to make sure it is durable.

Engineers always look for ways to improve their designs. Will you change your mortar?

Note - Students can use **Recording Sheet 4.5** to record their mortar mixtures after following the steps to the process.