

UNDER CONSTRUCTION:



SMARTspace@NIU
Creating eLearning Communities

WEIGHING AND DIGGING IN SENSORY BINS



LESSON OVERVIEW

Grade Levels: K-5

Learn about construction sites with the book *Goodnight, Goodnight, Construction Site* by Sherri Duskey Rinker. Create your own digging contraptions and dig your way through sensory bins. Weigh-in your loads at the weigh station to determine how much each load weighs and which materials weigh more or less.

STANDARDS

NGSS 2-PS1-1	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
CCSS RI.2.1	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
CCSS W.2.8	Recall information from experiences or gather information from provided sources to answer a question.
CCSS RI.5.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
CCSS MP.2	Reason abstractly and quantitatively.
CCSS MP.5	Use appropriate tools strategically.

OBJECTIVES

- Students will learn about construction sites
- Students will construct a construction site digging tool.
- Students will use their digging tool to collect different materials from sensory bins.
- Students will weigh different materials to determine weight.
- Students will compare the properties and weights of different materials.

MATERIALS

- 12 oz. cups
- Digger template
- Tape, glue, or glue sticks
- Crayons or markers
- 4 bins (3-6 gallons)
- Materials to put in bins that range from light weight items to heavy items (i.e. packing peanuts, cereal, birdseed, beans, rice)
- Weigh-in sheet
- Scale
- Camera to take pictures and send them to us

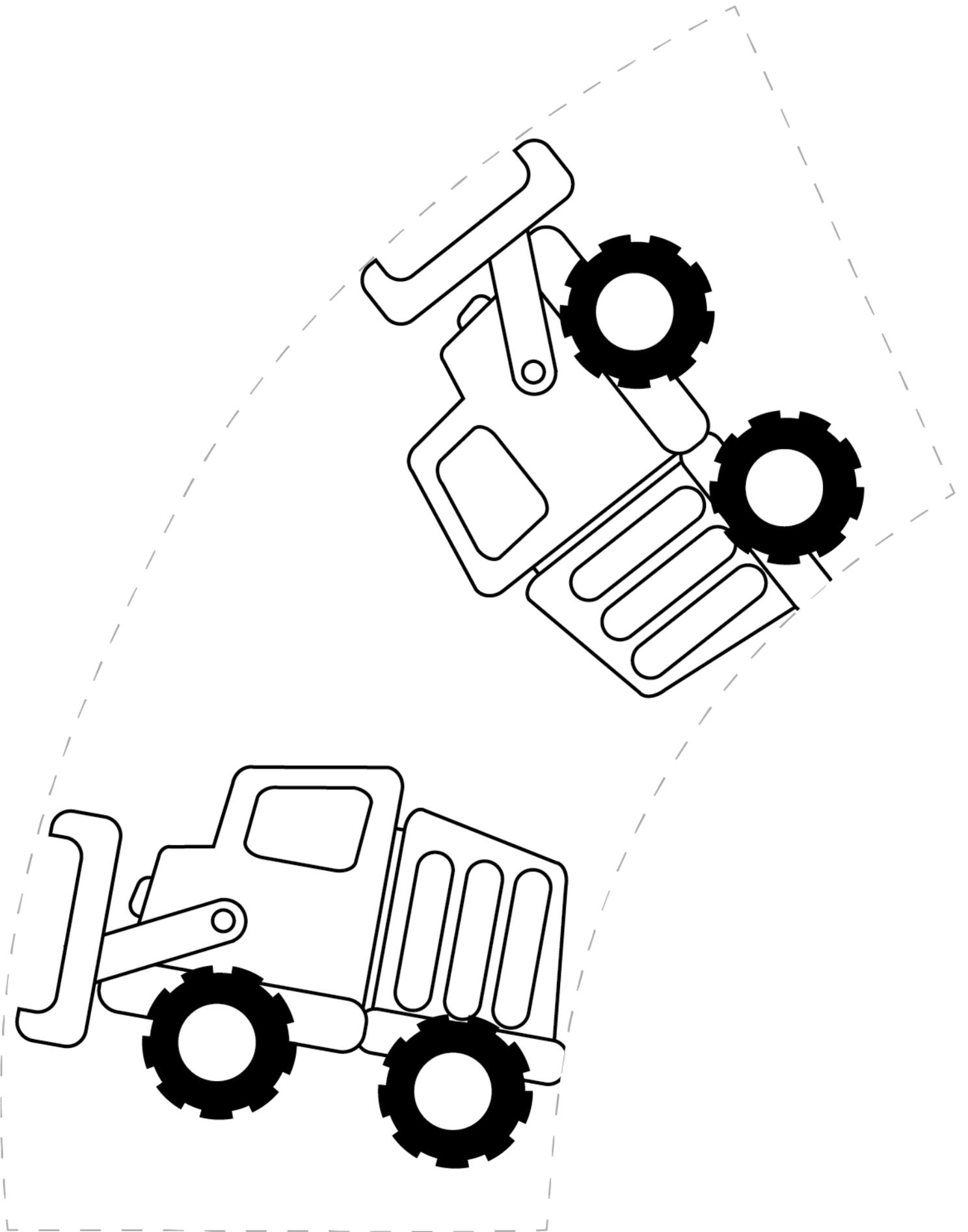


PROCEDURES

- STEP 1:** Read the book *Goodnight, Construction Site* by Sherri Duskey Rinker and identify the types of machines in different pictures. Discuss the different types of construction machines and their purposes.
- What kinds of machines are needed to construct buildings?
 - What kind of parts does a digger need to have to prepare the ground for building something?
 - Does a digger need to be heavy? Why?
- STEP 2:** Have the students color their digger templates.
- STEP 3:** Have the students cut out their digger template and glue or tape it to a 12 oz. cup.
- STEP 4:** Have the students line up and take turns scooping up a load of items into their digger and weigh it at the weigh station. Upon each weigh-in, students should record the weight of the item on their weigh -in sheet.
- STEP 5:** Have the students order the items on their weigh-in sheet from lightest to heaviest and discuss their physical properties.

RUBRIC

	Target (3)	Meets (2)	Partially Meets (1)	Does Not Meet (0)
BUILDING DESIGN	Does a great job showing an understanding of design for a purpose.	Does an okay job with showing an understanding of designing for a purpose.	Tries but has great difficulty showing an understanding of the design process.	Does not show an understanding of design.
USE OF MATERIALS	Inventively chooses materials that are interesting and support the project's purpose.	Appropriately chooses materials to support the project's purpose.	Chooses materials but some work against the purpose of the project.	Does not choose appropriate materials.
COLLABORATION	Works well with others and discusses ideas in a fair, respectful, encouraging way and is considerate of the feelings of others.	Works okay with others and discusses ideas in a fair, respectful way, but may not have been encouraging. Considers the feelings of others.	Works with others, but did not contribute a fair share of work OR was discouraging and did not consider the feelings of everyone.	Did not work well with others and/or discusses ideas in an unfair, disrespectful way.
REQUIREMENTS	Meets all of the requirements for the project.	Meets most of the requirements for the project.	Meets some of the requirements for the project.	Does not meet the requirements for the project.
DEMONSTRATION OF KNOWLEDGE OF CONTENT IN DISCUSSIONS AND ACTIVITIES	Does a great job showing an understanding of the content covered in class.	Does an okay job with showing an understanding of the content covered in class.	Tries but has a difficult time showing an understanding of the content covered in class.	Does not show an understanding of the content covered in class.
Total				/15



WEIGH STATION RESULTS



Write down the kinds of materials you weighed and their weights.

Object	Weight in Ounces

WEIGH STATION RESULTS



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