

Diagnostic Assessment for Our Picnic, The Study of Matter



Table of Contents

Item	Page
Our Picnic, The Study of Matter. Diagnostic Assessment Instructions	Page 2 - 3
Our Picnic, The Study of Matter. Diagnostic Assessment	Page 4
Our Picnic, The Study of Matter. Diagnostic Assessment. Answer Key	Page 5

Our Picnic

Diagnostic Assessment

Performance Assessment, Constructed Response

Standard(s) Assessed:

SC.A.1.1.1.1.1, SC.A.1.1.2.1.1, SC.A.1.1.3.1.1, SC.A.2.1.1.1.1

Duration: 30 min.

Description of Assessment Activity:

The diagnostic assessment, Our Picnic, The Study of Matter, is a series of activities performed by or discussed by the students. It can be administered whole group, in small groups, or individually. The teacher observes the activities and keeps a record of the students' abilities to perform and explain the activities. A tool is provided to record the observations. Students will be:

- Grouping pattern blocks by their various characteristics (SC.A.1.1.1.1.1),
- Verbally describing the various states of water (SC.A.1.1.3.1.1),
- Verbally describing the changes of the states of water (SC.A.1.1.2.1.1),
- Describing what a slice of bread is made of (SC.A.2.1.1.1.1).

Teacher Directions:

Read the assessment tool. Gather a set of pattern blocks, pictures of water in its various states, and a loaf of bread. It is recommended that you use breads that show the grains. For example, multi-grain bread has a variety of grains visible for the student, especially if a magnifying glass is used. Pattern blocks and slices of bread can be provided for groups rather than whole group if the students/ teacher work well in groups.

1. Pass out the pattern blocks and instruct students to look carefully at their blocks and then put their pattern blocks into groups.
2. Display pictures of water in the various states. Elicit descriptions of the various physical properties of ice, water, and steam.
3. Elicit descriptions of how to change one state of the water to another.
4. Give students a slice of bread and ask what it is made of. Magnifying glasses can be shared with the students as they observe the bread. As students participate in these activities, the teacher should be recording the observations on the assessment tool provided. Examples of how this can be recorded are also provided. Remember that this is a diagnostic assessment, not a teaching tool. No instruction should be given, however students should be told that the purpose of this activity is to find out what students already know so that the teacher will know what to teach.

Student Directions:

Listen carefully as your teacher tells you what to do.

1. Look carefully at the pattern blocks that are on your table. Put the pattern blocks in a group by putting blocks together that have the same physical characteristics. Now group them differently. Now group them a third way.
2. Tell your teacher about the pictures.
3. Tell your teacher how to make the water change so that the water in one of the pictures will look like the water in a different picture.
4. Look carefully at the bread your teacher gave to you. What is the bread made of? Tell your teacher what you can see in the bread. Then look at the bread with the magnifying glass and tell your teacher what you see in the bread.

Scoring Method and Criteria:

A check list/ observation record is available for you to record data from this diagnostic assessment. All criteria should be marked as “not able,” “some understanding,” or “already mastered.” Comments that will assist the teacher to better meet the individual needs of the students should be recorded. A sample of how to complete this document is included with the downloadable unit assessments from the Beacon Learning Center Unit Plan site.

Our Picnic

The Study of Matter

Diagnostic Assessment

Assessed	SSS/GLE	Description of Activity
	SC.A.1.1.1.1.1	Given a set of pattern blocks, students group the pattern blocks according to their physical characteristics. This procedure is repeated several times using different characteristics for each grouping.
Comments		
	SC.A.1.1.2.1.1	Shown pictures of ice, liquid water, and steam, students verbally identify that all pictures are of the same substance but in different forms.
Comments		
	SC.A.1.1.3.1.1	When verbally describing the changes from ice, liquid water, and steam, to their other states, students use the words heating and cooling (or words of this meaning).
Comments		
	SC.A.2.1.1.1.1	Shown a slice of bread, students verbally explain what the bread is made of.
Comments		

Assessment Key: / = not able X = some understanding v = already mastered
Comment area is for teacher records of individual needs observed.

Our Picnic

The Study of Matter

Diagnostic Assessment
Models of specific data recorded.

Assessed	SSS/GLE	Description of Activity
/	SC.A.1.1.1.1.1	Given a set of pattern blocks, students group the pattern blocks according to their physical characteristics. This procedure is repeated several times using different characteristics for each grouping.
Comments Students could group some items, but could not think of ways to group all the items. No students could use the characteristics to make alternative groups.		
X	SC.A.1.1.2.1.1	Shown pictures of ice, liquid water, and steam, students verbally identify that all pictures are of the same substance but in different forms.
Comments Only Kevin and Barbara had any knowledge of the effects of heating and cooling on solids, liquids, and gases. Other students followed their lead and began to correctly hypothesize after Kevin's and Barbara's examples.		
/	SC.A.1.1.3.1.1	When verbally describing the changes from ice, liquid water, and steam, to their other states, students use the words heating and cooling (or words of this meaning).
Comments Even students that began to describe the physical properties of ice, water, and steam became confused. No student successfully described/ identified the properties consistently.		
v	SC.A.2.1.1.1.1	Shown a slice of bread, students verbally explain what the bread is made of.
Comments All students know that objects are composed of parts that are too small to be seen without magnification.		

Assessment Key: / = not able X = some understanding v= already mastered
Comment area is for teacher records of individual needs observe.