

Learning Activity Template

Title: Structures of Matter

Curriculum: Science

Grade-Level Span: 1-6

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PURPOSE: The students will gain knowledge and demonstrate understanding of Structures of Matter

DESCRIPTION: The students will demonstrate the knowledge of the 3 states of mater

ACTIVITIES	Curriculum Standards	Minnesota Technology Standards	ISTE-NETS	Information Literacy Standard	Big 6
Students will define 3 states of matter http://iit.edu/~smile/ph9516.html http://www.stemnet,bf,ca/CITE/themes.html	Gr 1 IIA1 Gr 6 IIA5	I, II, III, IV	1	I, II, III	1
Students will brainstorm 3 states of matter found in the classroom, home, and nature.	Gr 1 IIA1 Gr 2 IIA2,3	I, II	1	I, II	2
Student will create a graphic organizer illustrating the 3 states of mater found in the classroom, home, and nature. http://www.stemnet,bf,ca/CITE/themes.html	Gr 1 IIA1 Gr 2 IIA 1,2,3 Gr 6 IIA4	I, II, III, IV	3	I, II, III	5
Student will observe changes of the state of matter http://www.bbc.co.uk/schools/scienceclips/ages/9_10/changing_state_whatnext.shtml	Gr 2 IIA4 Gr 4 IIA1	I, II, IV	1,2,3	I, II	4
Student will classify a substance as solid, liquid, or gas	Gr 2 IIA2	I	3	I	4
Student will compare and contrast the mass, shape and volume of solids, liquids and gases	Gr 4 IIA2 Gr 6 IIA3	I	3	I	4
Student will demonstrate that the mass of a substance remains constant whether it is together, in parts, or in a different state. http://www.pbskids.org/fetch/parentsteachers/activities/act-icecreamshake.html	Gr 6IIA3	I, II, IV	9	I, II	5
Student will create a quiz that illustrates each state of matter. Along with each illustration create a multiple choice question for that state of mater.	All grades	I, II	6, 8	I, II	6

TOOLS AND RESOURCES:

Science textbooks & workbook: Science Horizons by SilverBurdett & Ginn
 Hands on Experiments
 Graphic Organizer (such as KWL Chart, Venn diagrams, webbing)
The Wild Christmas Reindeer by Jan Brett

Websites:

<http://www.kathimitchell.com/mater.html>

http://www.bbc.co.uk/schools/scienceclips/ages/9_10/changing_state_whatnext.shtml

<http://iit.edu/~smile/ph9516.html>

<http://rubistar.4teachers.org>

<http://www.stemnet.bf.ca/CITE/themes.html>

<http://www.pbskids.org/fetch/parentsteachers/activities/act-icecreamshake.html>

ASSESSMENT:

Collaborative Work Skills : Structure of Matter

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Time-management	Routinely uses time well throughout the project to ensure things get done on time. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Usually uses time well throughout the project, but may have procrastinated on one thing. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Tends to procrastinate, but always gets things done by the deadlines. Group does not have to adjust deadlines or work responsibilities because of this person's procrastination.	Rarely gets things done by the deadlines AND group has to adjust deadlines or work responsibilities because of this person's inadequate time management.
Contributions	Routinely provides useful ideas when participating in the group and in classroom discussion. A definite leader who contributes a lot of effort.	Usually provides useful ideas when participating in the group and in classroom discussion. A strong group member who tries hard!	Sometimes provides useful ideas when participating in the group and in classroom discussion. A satisfactory group member who does what is required.	Rarely provides useful ideas when participating in the group and in classroom discussion. May refuse to participate.
Focus on the task	Consistently stays focused on the task and what needs to be done. Very self-directed.	Focuses on the task and what needs to be done most of the time. Other group members can count on this person.	Focuses on the task and what needs to be done some of the time. Other group members must sometimes nag, prod, and remind to keep this person on-task.	Rarely focuses on the task and what needs to be done. Lets others do the work.

Quality of Work	Provides work of the highest quality.	Provides high quality work.	Provides work that occasionally needs to be checked/redone by other group members to ensure quality.	Provides work that usually needs to be checked/redone by others to ensure quality.
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Date Created: Oct 14, 2006 02:33 pm (CDT)

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COMMENTS:

In teaching matter I have found it is such an abstract piece of knowledge that many hands on activities help with this understanding. Final activities such as making a maraca using an old light bulb wrapped in torn glue and water solution then cracking the bulb when dry. Then writing ten ways matter has changed throughout project starting with cutting the trees. We also do an activity which involves changing states of matter from a solid to a liquid: pouring over a solid; then again forming a solid when we make an ice candle.

(Have you taught this learning activity before? What are the great ah ha's/experiences you had?)

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