

ecoMentors Lesson Plan Template: Helping kids explore the planet! www.ecomentors.ca

Title: Matter & Materials

Grade Level(s): 1

Time/Date:

School:

Teacher:

Directions to school, class:

Contact Info:

Ontario Curriculum Connection: Matter and Materials: Characteristics of objects and properties of materials

Vocabulary: Words & Concepts your class may be learning, look these up yourself too!

Material - What objects are made of

Reduce – To use less

Reuse – to use again

Recycle – To use again in a different form

Materials and Equipment: List these before and while you plan and revise so you're prepared.

A plastic bottle

Paper and colors for the students, magazines, scissors and glue (present in classroom)

A bucket or something else (see through) that can contain water (maybe a sink is present in the classroom?) and a collection of small items: (match, stone, piece of glass, screw, paper clip, rubber band, ..)

What is your class accomplishing?: Learning & Activity Goals, Objectives

- **Learning where different materials come from (wood from trees, metal from the earth)**
- **Describe materials (hard, soft, cold, rough, shiny,...) and the differences between kinds of material**
- **Describe changes in materials**
- **Distinguish between natural and man-made materials**
- **Understanding the need of reuse and recycle**

PROCEDURE

The Spark: Introductions, Demonstrations, Show and Tell, Topic Intro (Break the ice!) ~5-10min

Introduce yourself. Ask the students to introduce themselves and name an object they know made of wood.

Brainstorming, Getting ideas, Connecting ideas (assess their knowledge!) ~10-20min

Today we are going to talk about materials. Does anyone know what the word material means? Can you name some different materials? (Wood, plastic, glass, metal, stone, rubber, cloth).

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play ~10-30mins

Make columns on the board of the different materials named by students.

Can you give some examples of objects made of these materials? Draw pictures of the examples of objects made of these materials on the blackboard.

Where do these materials come from? (wood-trees, metal-earth, glass-earth, stone-rock, plastic-oil)

What happens with these materials before we can use them?

Tree > cut down > factory > wood/paper

Rock > mining > melting > metal

Sand > Melt > glass

Oil > factory > plastic

Rubber tree > rubber

Wool > cloth

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play ~10-30mins

Warm Up

What objects are made of wood in the room?

Ask students one by one to stand up and find an object that uses wood. *How does the object feel? (rough, cold, warm, smooth, hard, soft, ...)*

What objects are made of metal in the room? How does the object feel?

What objects are made of plastic in the room? How does the object feel?

What objects are made of glass in the room? How does the object feel?

Material Guessing Game

Students must guess what the object is that has been placed in their hands (hands behind your back and no looking!) by the other students, they must also identify what material the object is made of. One student will come to the front of the class, turn so their back is facing the class with their hands behind them. Another student is asked to go around the class and select one item in the class to place in the other student's hands. The student with back turned must then guess what the object is and what it is made of. Play game till you run out of interesting objects and/or attention.

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

Game warm up.

What objects are made of metal in the room? Knock on the object and remember the sound.

What objects are made of glass in the room? Knock on the object and remember the sound.

What objects are made of plastic in the room? Knock on the object and remember the sound.

What objects are made of wood in the room? Knock on the object and remember the sound.

Knock on Material

This game is similar to the Material Guessing Game, except, the student that is guessing does not touch the object, instead the student that has selected the object will knock on the object with their fingers, hand or another object (you can help them with this). Let them guess what material is knocked on.

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

What material floats?

Take a little bucket/sink/... and fill it with water. Think of a small object of each material that you can use for this demonstration (i.e. a pencil, a paperclip, a plastic toy). Ask the class what they think: *What object floats when I place it in the water?* Demonstrate one by one the floating/sinking of these objects. Discuss: *Why does this object float/sink?*

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

Reduce, Reuse and recycle

Do you know what happens with plastic after you throw it away? Will it disappear? (tell the students plastic needs thousands of years to decompose). *What would happen if we would all throw our plastic away?* (It would still be there in 5000 yrs.) *What is a solution to this problem? Have you heard about reduce? Do you know what it means? Have you heard about reuse? Do you know what it means? Have you heard about recycle? Do you know what it means?* Explain the basics of recycle, reduce and reuse: If we use less plastic, we have less plastic waste. If we use the plastic that we have again, than we need to produce less plastic. If we recycle the plastic that we have used, we need to produce less plastic.

Let the students think of a way to reuse a plastic bottle. You could draw a plastic bottle in the middle of the blackboard and draw different ways of reusing the bottle around it. Connect with arrows.

If there is time: *What happens with wood when we throw it away? Is wood-waste as bad as plastic-waste?*

What happens with ... (use any material you like)

Contingency, Plan B, extra game or activity (Back up plan) ~5-10mins

Let the students draw a picture of what you could make of a certain material (i.e. a wooden table), let the students be creative!

OR If there are magazines available: Let the students make a collage of all materials from 1 specific material. They can cut out pictures in the magazines and glue them on their collage.

Presentation of Findings ~5-15mins

Review, Conclusion and steps towards continued action ~5-10mins

What different materials do we know? Which are from nature and which are man-made?

Why should we be careful in using plastic?

References

Great work ecoMentor! After use of Lesson Plan revise, add ideas and repeat!