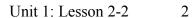




| Na | me Date |
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| | SEN Entry 2-2: Predictions About Changes in Properties |
| | ink about 2 materials, a soda can that gets crushed and a piece of paper that gets n into 100 pieces. |
| 1. ' | When a material changes shape, is it still the same material? Why do you think this? |
| | |
| | |
| 2. | When a material changes shape, does the amount of the material remain the same? Why do you think this? |
| | |
| | |
| | |
| | |





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Investigation 2-2: Crush What happens to materials when they are crushed in the landfill?

| Inves | tigation plan | ~ |
|-------|---|---|
| 1 | Gather materials: | |
| Plan | for each material | |
| 2 | Prepare the electronic scale: | |
| | € Calibrate the scale by pressing the "0.0 TARE" button. | |
| 3 | € With your group, select 1 material. € Identify and record the properties of the material (color, texture, and reflectivity) in the table. € Measure and record the weight of the material in the table. ** Make sure to place the material in the plastic cup when you weigh it. See the paper example to the right: | |
| 4 | Crush the material over the clear plastic cup. Make sure all pieces of the material are in the cup – don't lose any pieces. Record the properties in the table. | |



| 5 | Prepare the electronic scale using the instructions in step 2. Weigh the crushed material. Record the weight in the table. | |
|---|--|--|
| 6 | Repeat steps 2 - 5 for each material. | |
| 7 | Answer the questions at the end of the investigation. | |



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Investigation Table 2-2

| Material | | Property | | | Weight |
|------------|-------------------|-------------------|---------------------------------|------------------------------------|---------|
| | | Color | Texture (Rough or Smooth) | Reflectivity (Shiny or Dull) | (grams) |
| Material 1 | Before Crushing | | | | |
| | After Crushing | | | | |
| | | | Weig | ht Difference | |
| Material 2 | Before Crushing | | | | |
| | After Crushing | | | | |
| | | | Weiç | ht Difference | |
| Material 3 | Before Crushing | | | | |
| | After Crushing | | | | |
| | Weight Difference | | | | |
| Material 4 | Before Crushing | | | | |
| | After Crushing | | | | |
| | | Weight Difference | | | |







| Na | lame | Date |
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| L | nyantimation 2.2, Cruch (Overtions | |
| ın | nvestigation 2-2: Crush (Questions | ;) |
| 1. | . Compare the properties of the materials do you observe? | before crushing and after crushing. What |
| | | |
| | | |
| | · | |
| 2. | Compare the weight of the materials bet you observe? | fore crushing and after crushing. What do |
| | | |
| | | |
| | | |
| 3. | . Other observations: | |
| | · · · · · · · · · · · · · · · · · · · | |
| | | |
| | | |
| | | |



Finding Patterns in Our Investigation

| 4. Look at | the data about the properties of the materials. |
|---------------|---|
| a. (| Can you identify the materials after crushing? |
| _ | |
| b. | Look for a pattern in the properties before and after crushing. Are the properties the same or different before and after crushing? |
| _ | |
| _ | |
| 5. Look at | the data about the weight of the materials. |
| a. | Look for a pattern in the weight of the materials. Is the weight of the materials the same or different before and after crushing? |
| - | |
| _ | |
| b. | -Compare the pattern of properties with the pattern of weight. What happens to the amount of material after crushing? |
| _ | |
| _ | |
| _ | |
| _ | |
| | |



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| varie | Dale |

Arguing from Evidence 2-2

| Question: When materials are crushed, does the amount of material change? |
|---|
| Claim: |
| |
| |
| Evidence |
| Evidence 1 |
| |
| |
| |
| Evidence 2 |
| |
| |
| |
| Evidence 3 |
| |
| |
| |
| Reasoning |
| |
| |
| |
| |
| |











| Na | me Date |
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| | SEN Entry 2-2: Conservation of Matter |
| An | swer the following questions individually: |
| 1. | Imagine that we tear a piece of paper into very small pieces. Then we tear the pape into even smaller pieces until we can't see the pieces anymore. Is the paper still there? Support your answer with evidence from the crush investigation. |
| | |
| | |
| | |
| | |
| EX | TENSION: |
| 1. | What data could you collect to investigate whether the amount of paper has changed? |
| | |





| Name | Date | |
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| | | |

What Have We Figured Out?

Our Driving Question:

| What did we ask? | What did we do? | What did we figure out? | Do you have any new questions to add to the DQ Board? |
|------------------|-----------------|-------------------------|---|
| | | | |
| | | | |
| | | | |
| | | | |
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| | | | |



| What did we ask? | What did we do? | What did we figure out? | Do you have any new questions to add to the DQ Board? |
|------------------|-----------------|-------------------------|---|
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