Science
Target Time
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Target Time Components

1. Short **Formative Assessments**, or “Check-Ins,” given every 3-4 weeks or as content is taught
2. **Data analysis and reflection** of performance on formative assessment
3. **Student led practice** with selected targets (Choice Boards)
4. **Reflection and re-assessment**
What You’ll Need…

- Access to 3rd-5th Science Google Team Drive
- Chromebooks/Google Classroom for students *if implementing digitally*
- Target Time Folder for each student
- Resources for students to use to work on their goals
Student Process

**Step 1:** Students take Check-In.

**Step 2:** Students check answers and complete Error Analysis Sheet.

**Step 3:** Students analyze results and decide on what targets should be their focus.

**Step 4:** Students write goals in on their Goal Sheet.

**Step 5:** Students use Choice Board to select activities that will allow them to work on mastering their goal(s) for the amount of time set by teacher.

**Step 6:** Students take Exit Ticket to test for mastery of goals they have been working towards.
| Digital Target Time v. Paper/Pencil |  |
|-------------------------------------|  |
| **Digital Version**                | **Paper/Pencil Version** |
| - Check-Ins and Exit Tickets are in Google Forms  
  *You will need to make your own copies* | - Check-Ins and Exit Tickets printed for students to take paper/pencil |
| - Students can see correct answers without teacher providing answer key | - Answer keys need to be provided by teacher |
| - Google forms organized into Google Sites. Link put onto Google Classroom for students  
  *You will need to make your own Sites* | - Error Analysis and Goal Setting sheets printed for students |
| - Error Analysis and Goal Setting sheets are still printed for students | - Choice Boards/student led activities can be digital, paper/pencil, or both |
| - Choice Boards/student led activities can be digital, paper/pencil, or both | - Students can easily take hold folder to show parents/easy to share during conferences |
| - Gives you the ability to view student data digitally | |
Check-In Example

Properties of Matter, Mixtures and Solutions Check-In

Question 1
A teacher sets up an experiment using five jars like the ones shown below. The teacher keeps one jar unwrapped in the cold air. The other four jars are wrapped with equal thicknesses of four different materials.

The jars are each filled with an equal amount of water that is 90°C. Students observe and record the water temperature in each jar after 10 minutes. The results are shown in the table below.

Water Temperature After 10 Minutes

<table>
<thead>
<tr>
<th>Material</th>
<th>Water Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>90</td>
</tr>
<tr>
<td>Bar</td>
<td>87</td>
</tr>
<tr>
<td>Paper</td>
<td>82</td>
</tr>
<tr>
<td>Cardboard</td>
<td>70</td>
</tr>
<tr>
<td>Towel</td>
<td>65</td>
</tr>
</tbody>
</table>

Which property of the materials wrapping the jars are the students most likely investigating?
F. State of matter  
G. Thermal energy insulation  
H. Thermal energy production  
I. Ability to conduct electricity

Question 2
A cook uses the ingredients listed below to prepare a meal.

Ingredients
- Sugar cubes  
- Salt  
- Cooking oil  
- Carrots  
- Bar

Which table correctly shows the physical properties of these ingredients when placed in hot water?

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Physical Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar cubes</td>
<td>Solid that does not dissolve</td>
</tr>
<tr>
<td>Salt</td>
<td>Solid that does not dissolve</td>
</tr>
<tr>
<td>Cooking oil</td>
<td>Liquid that melts</td>
</tr>
<tr>
<td>Carrots</td>
<td>Solid that does not dissolve</td>
</tr>
<tr>
<td>Bar</td>
<td>Solid that dissolves</td>
</tr>
</tbody>
</table>

Properties of Matter Check-In

* Required

Name *

Your answer

Question 1 *
A teacher sets up an experiment using five jars like the ones shown below. The teacher keeps one jar unwrapped as the control. The other four jars are wrapped with equal thicknesses of four different materials.
Choice Boards
Independent practice menu, or choice board, for students to choose Target Time activities.

<table>
<thead>
<tr>
<th>Properties of Matter Choice Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEMscopes</td>
</tr>
<tr>
<td>If you need assignment to add, ask Mr. Whorton</td>
</tr>
<tr>
<td>Interactive Anchor Charts</td>
</tr>
<tr>
<td>Discovery Education</td>
</tr>
<tr>
<td>Look for Properties of Matter Videos</td>
</tr>
<tr>
<td>Digital Sorts:</td>
</tr>
<tr>
<td>Physical State of Matter</td>
</tr>
<tr>
<td>Teaching/Assessing/Meeting</td>
</tr>
<tr>
<td>Pick a tool to help you grow!</td>
</tr>
<tr>
<td>Growth Partner</td>
</tr>
<tr>
<td>Know a classmate that has it done? Ask them for help! Go over the Check-In questions to understand them</td>
</tr>
<tr>
<td>Word Wall</td>
</tr>
<tr>
<td>Go to your digital Word Wall on Google Classroom and use your digital journal to continue adding to it</td>
</tr>
<tr>
<td>Vocabulary Practice</td>
</tr>
<tr>
<td>Ask Mr. Whorton for the Properties of Matter Vocab cards and play a vocab game</td>
</tr>
<tr>
<td>Properties of Matter</td>
</tr>
<tr>
<td>Warm-Up Questions</td>
</tr>
<tr>
<td>Adapt the questions on Notebook paper</td>
</tr>
<tr>
<td>Nearpod Resource</td>
</tr>
<tr>
<td>Use this Nearpod to review important skills</td>
</tr>
<tr>
<td>Properties of Matter Task Cards</td>
</tr>
</tbody>
</table>

Ideas for Choice Boards
- Vocabulary Games
- Sorts
- STEMscopes activities
- Growth Partner
- Nearpod Lessons
- Discovery Edu Videos
Exit Tickets

**Properties of Matter Exit Ticket**

* Required

Name *

Your answer

Question 1 *

A student puts four objects in a bucket filled with water. The objects are listed below:

- Plastic ball
- Glass marble
- Metal paper clip
- Wood block

Which two objects are most likely less dense than the water?

- Wood block and metal paper clip
- Plastic ball and glass marble
- Metal paper clip and glass marble
- Wood block and plastic ball

Question 2

The table lists some properties of four different samples of matter:

<table>
<thead>
<tr>
<th>Sample</th>
<th>State of Matter at Room Temperature</th>
<th>Color</th>
<th>Attracted to Magnet?</th>
<th>Conducts Electricity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solid</td>
<td>Clear</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Solid</td>
<td>Silver</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Liquid</td>
<td>Clear</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Liquid</td>
<td>White</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Which two samples could be glass and saltwater?

- Samples 1 and 2
- Samples 3 and 4
- Samples 1 and 3
- Samples 2 and 3

Question 3

Which of these is **not** soluble in water?

- F Oil
- G Salt
- H Honey
- J Sugar

Question 4

Objects that blow into a swimming pool or that are dropped into the pool by swimmers need to be removed. These objects include foam cups, keys, and coins. Which of the following explains a useful method for removing some of these objects?

A. The keys and coins are less dense than water, so they can be easily picked up off the bottom of the pool by divers.
B. The foam cups have the same density as water, so they can be counted up for removal by the pool filter.
C. The foam cups are less dense than water, so they can be removed from the surface with a pool cleaning net.
D. The keys and coins have the same density as water, so they can be washed away when the pool is drained.

Which two objects are most likely less dense than the water?

- Wood block and metal paper clip
- Plastic ball and glass marble
- Metal paper clip and glass marble
- Wood block and plastic ball
Decide on your timeline

Target Time assessments are created to assess each STAAR standard, with the greatest emphasis being given to the readiness standards.

You want your timeline to allow your assessments to line up with content recently taught in class.

First Nine Weeks - Properties of Matter
- Weeks 2-6 Properties of Matter/Mixtures and Solutions
- Weeks 7-9 Forms of Energy/Changes in State/Freezing and Boiling

Second Nine Weeks - Light, Electricity and Land
- Weeks 1-3 Electricity & Light
- Weeks 4-6 Force and Motion
- Weeks 7-9 Changes to Land

Third Nine Weeks - Interactions in Space, Ecosystems, Food Chains
- Weeks 1-2 Interactions in Space
- Week 3-4 Ecosystems & Food Chains
- Weeks 5-9 Traits and Adaptations (would be pre-assessment if not moved back).

Fourth Nine Weeks - Use benchmark data to review all tested targets
Let’s be real….

Even after a year, I don’t have all the answers!

Challenges include….

- Making sure Imagine Math and iStation minutes are met while students are still having time to work towards set goals
- Ensuring students do not get overwhelmed by too many targets and goal setting (I limited them to one goal sheet at a time)
- Helping students who are pulled consistently for intervention/resource time get opportunities to work towards goals
- Technology use since we are not 1:1
- Tracking student progress on targets - easier when using digital version
My Why...

1. Puts the data analysis and goal setting in my student’s hands.
2. Allows all students to identify strengths/next steps within their learning.
3. Provides students with an opportunity to get used to looking at our science content through a “STAAR lens.”
   *If doing STAAR online, digital version gives them exposure to looking at STAAR questions digitally*
4. Provides me with data specific to STAAR questions.