

Lesson overview

Subject:	Science
Grade:	1
Topic:	States of Matter
Concepts:	Matter; Change
Essential questions:	<ul style="list-style-type: none"> • What are the different forms of matter? • How does matter change?

Objectives

✓ Students will know:

The different types of matter: solid, liquid, gas

How matter changes: solid > liquid; liquid > gas

✓ Students will understand:

Change is a natural occurrence that is predictable, based on the surrounding environment.

✓ Students will be able to do:

Name the three state of matter: solid, liquid, gas

Identify ways in which matter changes from: solid to liquid; liquid to gas

Predict how different environments will affect the state of matter.

Range or description of learner needs in your class related to this topic

Whole class, 20 students

Above, average, and below grade level

Two students receiving special education services for Intellectual Disabilities

Factors you'll need to consider in developing the RAFT assignment

(related to time, students, space, materials, etc.)

Group dynamics

Time

Level of Independence

Behavior Management

Pre-assessment plans:

Formal assessment given before lesson:

- Matching states of matter to picture
- Prediction scenarios

Assessment plans :

1. how work will be graded

Self-Evaluation

Peer Evaluation (Expert Groups)

Performance (Formal Assessment)

2. Monitoring student work and progress:

3. Checking work for accuracy, understanding, and quality:

Because the RAFT assignment is being used at the beginning of a unit on “States of Matter”, students will self-check accuracy and understanding during other instructional opportunities, after the lesson. Student understanding will then evolve in which information learned from this lesson is incorporated into new knowledge learned from instructional opportunities following the lesson.

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RAFT assignments

Role	Audience	Format	Topic
Solid	Peer Group	Picture Ad	"I'm a slow mover."
Liquid	Peer Group	Commercial	"It's a little wet."
Gas	Peer Group	Written Summary	"No one can see me."

Analyzing you RAFT assignments

1. How are your RAFT assignments alike in intent and structure? How are they different in intent and structure?

This RAFT assignment is being used in a JIGSAW format; therefore all students (regardless of role) are becoming experts that present to their 'Home Groups'. Additionally, the audience (Peer Group) is the same for all. The same KUDs are at work as students explore states of matter through the RAFT activity.

The RAFT assignment differs on format. This difference is based on learning profile and interest. The format addresses visual, auditory, and tactile/kinesthetic learning considerations. Additionally, the format addresses different Multiple Intelligence considerations. Although RAFT assignments generally encourage writing across the curriculum, many students in the first grade cannot write cohesive thoughts without becoming frustrated. Therefore, the format addresses different modalities of expressing ideas depending on student readiness.

2. What do you see as essential feature of or elements in making sure students are successful with RAFTs?
 - Strong KUDs
 - Engaging elements (format, topic)

- Clear expectations
- Consistent behavior management
- The establishment of a classroom community

3. What is the link between preassessment and RAFTs?

- Promotes differentiation based on readiness
- Shows growth and increased student understanding over the course of the assignment/unit.

4. Think of several ways the teachers might have given direction for competing RAFTs successfully when not all students would complete the same task.

- Differentiate based on readiness and learning profile: write, draw, or verbally explain (Format)
- Give choice in one of the RAFT components: Format or Topic
- Tier the format component: provide several questions for students to respond to (to help students summarize), provide one or two broad questions for students to respond to (to help students summarize), have students summarize with no support questions.

5. What questions do you have as a result of examining your RAFTs?

- How are RAFTS effectively used during the middle of a unit, as opposed to beginning or end?
- How do RAFTS coincide with strategies such as Six Thinking Hats, etc.?