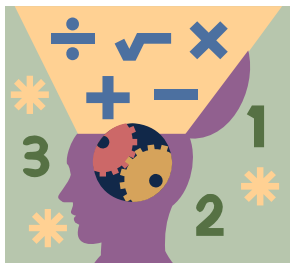


# “MULTIPLE INTELLIGENCES IN A JEWISH SETTING”

## LOGICAL-MATHEMATICAL by Deborah Gettes, Auerbach Central Agency for Jewish Education Consultant for Special Education



It is our goal to stimulate your thinking and encourage you to integrate Multiple Intelligence strategies into your lessons. The first intelligence the Auerbach Central Agency is highlighting is **LOGICAL-MATHEMATICAL**. There are two components to the information that follows:

1. Examples of how to incorporate the Logical-Mathematical Intelligence into the subject areas: Hebrew, Israel, Mitzvot, Holidays, Tefillah and Torah.
2. A chart to view all subject areas and the integration of the Logical-Mathematical Intelligence at a glance.

The graphic organizers in this reference are based upon the materials in the website **Enchanted Learning** - <http://www.enchantedlearning.com/graphicorganizers/>.

## I. Hebrew



### A. Action Verbs and Student Behaviors

Begin your activity with a word such as:

Differentiate  
Discriminate  
Translate

### Examples:

Can you discriminate the difference between Hebrew letters that look alike?

Can you discriminate the differences between Hebrew letters that sound alike?

### B. Student Products and Performances:

Create a chart with colors, numbers, shapes, food, things found in a desk, home, outside, etc. Include the picture and the word in Hebrew.

### C. Assessment Formats

Create a list of words the students should be able to read and ask them to read them aloud. When they are able to read all of the words on the list, they can move to the next list.

### D. Curriculum Outcomes

Demonstrate understanding of the *shoresh* (kof, dalet, shin - ש ת ק) by making a list of words that use the *shoresh*.



## II. ISRAEL

### A. Action Verbs and Student Behaviors:

Begin your activity with words such as

Account for

Contrast

Determine

#### Examples:

**Contrast life in Israel before 1948 to what it is like in 2006.**

**Contrast the various geographical areas of Israel.**

**Contrast the people who live in Israel (different types of Jewish people, different ethnic groups).**

### B. Student Products and Performances:

#### Cause and Effect Relations:

Artifacts guessing game: Show students an ancient object found in an archeology dig in Israel (use a replica of an object or a picture). Give them 20 guesses to discover what it is and what it was used for.

#### Time Lines:

Continuum or timeline diagrams are a type of graphic organizer that are used to represent a continuum of data that occur in chronological (time) order or in sequential order.

If the topic has a definite beginning and or ending points, and the data points in between are not discrete, use a continuum/timeline.

For example, a continuum or timeline diagram can be used to explain important periods in Israel's life. In making a timeline, the student must first determine appropriate endpoints for the timeline and important points/dates to label on the continuum.

The website Enchanted Learning - <http://www.enchantedlearning.com/graphicorganizers/> has hundreds of graphic organizers that can be used to help teach using the Mathematical/Logical Intelligence.

### C. Assessment Formats

“What if” exercises.

What if the Temple had not been destroyed?

#### D. Curriculum Outcomes

Create a time line of important periods in Israel's history.

### III. MITZVOT



#### A. Action Verbs and Student Behavior

Begin your activity with words such as:

Conclude

Demonstrate

Find examples

#### Examples:

*Tikkun Olam* is repair of the world.

Conclude what the world would be like if no one cared about the environment.

Conclude what your synagogue would be like if no one cared about keeping up the maintenance in the synagogue.

Conclude what your yard would be like if everyone threw trash on it, no one cut the grass, no flowers or plants were in the yard.

#### B. Student Products and Performances

Graphic Organizers: Cause and Effect:

Cause and Effect diagrams, also called sequence of events diagrams, are a type of graphic organizer that describe how events affect one another in a process. Students can create a visual representation of what happens when one does a particular mitzvah. What happens as a result of this mitzvah being done?

The student must be able to identify and analyze the cause(s) and the effect(s) of an event or process. In this process, the student realizes how one step affects the other.

The website Enchanted Learning - <http://www.enchantedlearning.com/graphicorganizers/> has hundreds of graphic organizers that can be used to help teach using the Mathematical/Logical Intelligence.

#### C. Assessment Formats:

Read/Relate Challenges:

Read about the mitzvah of *hakhnasat orhim*, welcoming strangers. When, how and where can you welcome a stranger?

#### D. Curriculum Outcomes:

Predict the consequences of following or not doing mitzvot.

## IV. SHABBAT



### A. Action Verbs and Student Behavior (Begin your activities with words such as these)

Brainstorm  
Demonstrate  
Distinguish

#### Example:

**Distinguish the difference between things you do on Shabbat and the things you do not do on Shabbat. What makes the Shabbat things special?**

### B. Student Products and Performances

Symbols  
Time Sequence Charts:  
Create a chart of the flow of Shabbat in time order.

### C. Assessment Formats:

Notebooks:  
Keep a notebook of what you do on Shabbat from sundown to sundown. Put a star next to every Shabbat practice you do to make Shabbat special.

### D. Curriculum Outcomes:

Create a flow chart of preparation for Shabbat: Friday night, Saturday, and Havdalah.

The website Enchanted Learning - <http://www.enchantedlearning.com/graphicorganizers/> has hundreds of graphic organizers that can be used to help teach using the Mathematical/Logical Intelligence.

## V. TEFILLAH



### A. Action Verbs and Student Behavior (Begin your activities with words such as these)

Classify  
Interpret  
Show understanding

#### Example:

**Classify the prayers that praise God and those that ask God for something in the Amidah.**

### B. Student Products and Performances

Charts  
Webs: Web diagrams are a type of graphic organizer that condense and organize data about multiple traits, facts, or attributes associated with a single topic.

Web diagrams are useful for basic brainstorming about a topic or simply listing all of the major traits related to a theme.

For example, a web diagram can be used to create a graphic display describing all you know about a prayer. What are the parts of the prayer? What is the prayer about? Who says the prayer? When is it said?

The website Enchanted Learning - <http://www.enchantedlearning.com/graphicorganizers/> has hundreds of graphic organizers that can be used to help teach using the Mathematical/Logical Intelligence.

### C. Assessment Formats:

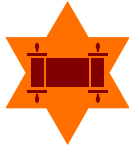
Formula:

Use the formula for blessings (*Barukh Ata Ado-nai . . .*) to create your own blessing.

### D. Curriculum Outcomes

Compare and contrast two prayers.

## VI. TORAH



### A. Action Verbs and Student Behavior (Begin your activities with words such as these)

Extrapolate

Simplify

Wonder

#### Examples:

**Wonder why Sarah laughed when she was told she would have a child.**

**Wonder why it took so many plagues to finally allow Pharaoh to let the Jewish people go.**

### B. Student Products and Performances

Predictions

Story Grids:

Story Grids are graphic organizers that can be useful in helping a student analyze or write a story.

This type of analysis is especially good for examining Torah stories, fables and folktales.

Story graph graphic organizers help the student identify the elements of the story and the theme or moral of the story. Some of the many elements of a story include the important characters (their appearance, personality traits, and motivations), the setting of the story (time and place), the problem faced by the characters, how the problem is approached, and the outcomes.

There are many types of story grids that examine different elements of the story (and reveal different structures within a story).

- Some summarize the beginning, middle and end of a story.
- Some list the 5 W's: the "who, what, where, when, and why" of a story.
- Some list the title, setting, characters, the problem, the solution and the moral or theme of the story.

The website Enchanted Learning - <http://www.enchantedlearning.com/graphicorganizers/> has hundreds of graphic organizers that can be used to help teach using the Mathematical/Logical Intelligence.

### C. Assessment Formats:

Critiques:

What do you think of Moses telling all of the Jewish people to walk in the Red Sea?

### D. Curriculum Outcomes

Analyze several mitzvot and put them into categories.

For a further explanation and description of each multiple intelligence, click on:

<http://www.arches.uga.edu/~hmt/webwrite/printable1.htm>.

For additional examples refer to the ***Curriculum & Project Planner for Integrating Learning Styles, Thinking Skills and Authentic Instruction*** by Imogene Forte and Sandra Schurr by Incentive Publications.

## MATHEMATICAL/LOGICAL INTELLIGENCE IN THE JEWISH CLASSROOM

SUBJECT AREA	ACTION VERBS & STUDENT BEHAVIOR	STUDENT PRODUCTS & PERFORMANCES	ASSESSMENT FORMATS	CURRICULUM OUTCOMES
HEBREW	<p><b>Differentiate</b></p> <p><b>Discriminate</b> Can you discriminate the difference between Hebrew letters that look alike? Can you discriminate the differences between Hebrew letters that sound alike?</p> <p>Translate</p>	<p><b>Charts</b> Create a chart with colors, numbers, shapes, food, things found in a desk, home, outside, etc. Include the picture and the word in Hebrew.</p>	<p><b>Checklist</b> Create a list of words the students should be able to read and ask them to read them aloud. When they are able to read all of the words on the list, they can move to the next list.</p>	<p><b>Demonstrate</b> understanding of the shresh</p>
ISRAEL	<p><b>Account for</b> Contrast Contrast life in Israel before 1948 to what it is like in 2006. Contrast the various geographical areas of Israel. Contrast the people who live in Israel (different types of Jewish people, different ethnic groups).</p> <p><b>Determine</b></p>	<p><b>Artifacts guessing game</b> Artifacts guessing game: Show students an ancient object found in an archeology dig in Israel (use a replica of an object or a picture). Give them 20 guesses to discover what it is and what it was used for.</p> <p><b>Cause and Effect Relations</b> Artifacts guessing game: Show students an ancient object found in an archeology dig in Israel (use a replica of an object or a picture).</p> <p>Give them 20 guesses to discover what it is and what it was used for.</p>	<p><b>"What if" exercises</b> What if the Temple had not been destroyed?</p>	<p><b>Create</b> a time line of important periods in Israel's history</p>

		Time Lines		
MITZVOT	<p><b>Conclude</b> Tikkun Olam is repair of the world. Conclude what the world would be like if no one cared about the environment. Conclude what your synagogue would be like if no one cared about keeping up the maintenance in the synagogue. Conclude what your yard would be like if everyone threw trash on it, no one cut the grass, no flowers or plants were in the yard.</p> <p>Demonstrate Find examples</p>	<p><b>Graphic organizers</b> Cause and Effect Cause and Effect diagrams, also called sequence of events diagrams, are a type of graphic organizer that describe how events affect one another in a process. Students can create a visual representation of what happens when one does a particular mitzvah. What happens as a result of this mitzvah being done?</p>	<p><b>Read/Relate challenges</b> Read about the mitzvah of welcoming strangers. When, how and where can you welcome a stranger?</p>	<p><b>Predict</b> consequences of doing or not doing mitzvot.</p>
SHABBAT	<p>Brainstorm</p> <p><b>Distinguish</b> Distinguish the difference between things you do on Shabbat and the things you do not do on Shabbat. What makes the Shabbat things special?</p> <p>Demonstrate</p>	<p><b>Time Sequence Charts</b> Create a chart of the flow of Shabbat in time order. Symbols</p>	<p><b>Notebooks</b> After Shabbat, keep a notebook of what you do on Shabbat from sun down to sun down. Put a star next to every Shabbat practice you do to make Shabbat special.</p>	<p><b>Create</b> a flow chart of Shabbat practices.</p>
TEFILLAH	<p><b>Classify</b> Classify the prayers that praise God and those that ask God for something in the Amidah.</p> <p>Show understanding</p> <p>Interpret</p>	<p>Charts</p> <p><b>Webs</b> Web diagrams are a type of graphic organizer that condense and organize data about multiple traits, facts, or attributes associated with a single topic.</p>	<p><b>Formula</b> Use the formula for blessings (Barukh Ata Ado-nai . . .) to create your own blessings.</p>	<p><b>Compare and contrast</b> two prayers.</p>
TORAH	<p><b>Wonder</b> Wonder why Sarah laughed when she was told she would have a child. Wonder why it too so many plagues to finally allow Pharaoh to let the Jewish people go. Simplify</p> <p>Extrapolate</p>	<p><b>Story grids</b> Story grids are graphic organizers that can be useful in helping a student analyze or write a story. This type of analysis is especially good for examining Torah stories.</p> <p>Predictions</p>	<p><b>Critiques</b> What do you think of Moses telling all of the Jewish people to walk into the Red Sea?</p>	<p><b>Analyze</b> several people from Torah stories and categorize them according to their personality traits.</p>