

# BRAIN-COMPATIBLE SCIENCE LESSON PLAN

## *Glyphs*

**Teacher:** *Warren Phillips, Science K–12*

**Lesson Objective(s):** *What will you be teaching?*

*Glyphs: a scientific method of communication*

**Assessment (Traditional/Authentic):** How will you know students have learned the content?

*Students will create a glyph using interview information. They will pass on this information while introducing their classmates. They will produce a classroom display showing classmate information. They will examine subsets and create graphs or Venn diagrams of overlapping interests or traits.*

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**Ways to Gain/Maintain Attention (Primacy):** *How will you gain and maintain students' attention? Consider need, novelty, meaning, or emotion.*

*Students will need to learn the interests and traits of their partners as they create their glyphs. The novelty of producing a glyph and introducing their classmates will add excitement to the lesson. As they create a glyph, they will find meaning in their project. They will eventually become emotionally attached to their classmates as they compare common interests in a Venn diagram.*

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**Content Chunks:** *How will you divide and teach the content to engage students' brains?*

*(This lesson will probably take two class periods.)*

**Lesson Segment 1:** Reading About Glyphs (See the glyph handout at the end of the lesson plans.)

### **Activities**

1. *Students will read information about how NASA scientists have used glyphs in the space program. Students should discuss how glyphs have been used in other situations (hieroglyphics, Morse code, etc).*

*Students examine and analyze the glyph sheet so that they understand what information they need to obtain to create their glyph.*

- 2. Write the names of students on small wooden craft sticks, and place the sticks in a cup. Each student will pick a stick from the cup and, thus, be randomly assigned a partner.*
- 3. Students form pairs and ask each other the information needed to make a glyph of their partner. Calm background music will provide a soothing classroom learning atmosphere.*

## **Lesson Segment 2: Constructing Partners' Glyphs**

### **Activities**

- 1. Students will construct a glyph of their partner and embellish the picture with other traits, jewelry, clothing, and so on. This can be done as a homework assignment.*
- 2. Based upon the information on their glyphs, students introduce their partners to the class and hang the pictures up on the wall after their presentations to display traits and interests of their classmates. They could write this out and read this if they are anxious about presenting in front of others.*
- 3. Based upon the glyphs displayed on the wall, students create a graph or Venn diagram to display similar interests or traits of their classmates.*

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### **Brain-Compatible Strategies:** *Which will you use to deliver content?*

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| <input checked="" type="checkbox"/> Brainstorming and discussion          | <input type="checkbox"/> Project-based and problem-based instruction             |
| <input checked="" type="checkbox"/> Drawing and artwork                   | <input checked="" type="checkbox"/> Reciprocal teaching and cooperative learning |
| <input type="checkbox"/> Field trips                                      | <input checked="" type="checkbox"/> Role plays, drama, pantomimes, and charades  |
| <input type="checkbox"/> Games  | <input type="checkbox"/> Storytelling  |
| <input type="checkbox"/> Graphic organizers, semantic maps, and word webs | <input type="checkbox"/> Technology  |
| <input type="checkbox"/> Humor  | <input type="checkbox"/> Visualization and guided imagery                        |
| <input type="checkbox"/> Manipulatives, experiments, labs, and models     | <input checked="" type="checkbox"/> Visuals                                      |
| <input checked="" type="checkbox"/> Metaphors, analogies, and similes     | <input type="checkbox"/> Work study and apprenticeships                          |
| <input checked="" type="checkbox"/> Mnemonic devices                      | <input checked="" type="checkbox"/> Writing and journals                         |
| <input type="checkbox"/> Movement   |  |
| <input type="checkbox"/> Music, rhythm, rhyme, and rap                    |  |