BELLARMINE UNIVERSITY

Bellarmine Lesson Plan Template

Name: _____	Date: 3/30/12
Age/Grade Level: ECE Primary(5-8 yrs)	Major Content: Sink or Float
Number of Students: 8	Subject: Science
Number of Students with IEP / 504 plan: 8	Lesson Length: 25 minutes
Number of English Language Learners: 2	Unit Title (refer to curricular maps): Properties
Number of Gifted Students:0	Lesson Number and Title: Sink or Float

School and district factors School: _____
(Mathematics)
By May 2012, the percentage of Free/Reduced Lunch students scoring proficient or distinguished in Math will increase to 80.6 as measured on the Kentucky Core Content Test.

Last Year's Test Result
The percentage of proficient students for the KCCT test was 72.65%. They did not make their NCLB goal.

(Writing)
By May 2012, the percentage of students scoring proficient or distinguished will increase by 13 for a total percentage of all students scoring proficient or distinguished in Writing of 74 as measured on the Kentucky Performance Rating for Educational Progress (K-PREP)

Last Year's Test Result
In May 2011, the percentage of students scoring proficient or

distinguished in Writing was 61 as measured on the Kentucky Core Content Test.

(Reading)
By May 2012, the percentage of students scoring proficient or distinguished will increase by 9 for a total percentage of all students scoring proficient or distinguished in Reading of 82 and by 8 for the percentage of Free/Reduced Lunch students scoring proficient or distinguished in Reading for a percentage of 70 as measured on the Kentucky Performance Rating for Educational Progress (K-PREP)

Last Year's Test Results
In May 2011, the percentage of students scoring proficient or distinguished in Reading was 73 as measured on the Kentucky Core Content Test and the percentage of Free/Reduced Lunch students scoring proficient or distinguished in Reading was 62 as measured on the Kentucky Core Content Test

Demographics
Minority: 40%
Free/Reduced Lunch: 52%
Total Number of Students: 760

Assistance
Place a √ beside the phrase that describes the types of help available to you

√ instructional assistant □ parent volunteers □ peer (student) tutors
□ resource teachers √□ classroom teacher □ other (please specify)

The classroom teacher and assistants will assist me in providing the one-on-one attention that the students require. Three of the students are able to work in a small group with monitoring from an adult. The other five students require more assistance. The teacher and assistants may help with hand-over-hand and prompting/cueing.

Student Differences
Indicate the number of students in each category below and briefly describe the needs of students in the categories noted

ESL: 2 # with IEPs: 8 # with 504 modifications: 0
Title I: 0 Gifted: 0 Other:0

Description of needs:
I. Student 1: Autism, SPL, OT, non-verbal;
Needs: 1-1, hand over hand, repetition, sensory adaptations, pictures along with hand signals and verbal, use of a variety of manipulatives, movement breaks, heavy/deep pressure throughout the day and used as a reward, individual picture schedule

2. Student 2: Developmental Delay, SPL, OT, non-verbal(cue to shake head yes/no), ESL;
Needs: 1-1 to small group, repetition, modeling, verbal along with pictures, use of a variety of manipulatives then to paperwork, highlighted lines to trace/cut, sensory adaptations

3. Student 3: Developmental Delay, SPL, OT, non-verbal(says 'no', sometimes shakes head 'yes');
Needs: 1-1 to small group, repetition, modeling, behavior chart, individual picture schedule, timer, rewards, clear beginnings/endings of each task/direction, use of pictures along with verbal

4. Student 4: Autism, SPL(a lot of echolalia, talking to self, answers best through picture/objects), OT, ESL
Acc: works best in a 1-1 or very small group setting, needs frequent movement breaks, personal schedule after each task for transition(especially preferred to non-preferred). enjoys TV characters (Dora, Diego, Ariel, Mickey Mouse,etc)as rewards, repetition, sensory adaptations, pictures along with verbal, needs individual directions, highlighted lines to trace and cut along with fading hand over hand

5. Student 6: Autism,OT, SPL(verbal, but doesn't use it unless prompted, talks to self repeating videos), Vision
Needs: 1-1 but fading to small group and independent work, personal schedule but fading use, timer, sensory adaptations, highlighted lines to cut/trace, repetition of activities, modeling, visuals along with verbal, obsessed with the computer

6. Student 7: Autism, OT, SPL(verbal)
Needs: requires small group to large group activities, structured movement breaks, attention to task before giving, clear beginnings/endings of task/directions, praise/rewards(likes paper to make into things, to draw trains), repetition, modeling, can copy simple words/# from the board

7. Student 8: Autism, OT, SPL(verbal)
Needs: small group to large group instruction, structured movement breaks, reminders to slow down-listen, verbal/physical cue to stay on topic, repetition of tasks/activities, rewards/praise(likes to draw/use computer), can copy simplw words/#/pictures from the board

8. Student 9: Downs Syndrome, OT, SPL(verbal, but would rather answer yes/no or shake his head)
Needs: requires small group instruction to large group, repetition, modeling, sensory adaptations, structured movement breaks, extra cues to compete work/stay on task, can copy simple words/# from the board, clear beginnings/endings of each task/directions

<u>Response to Intervention-</u> Not relevant because students already qualify for SPED
Tier 1 Interventions:

Tier 2 Interventions:

Tier 3 Interventions:

Student Diversity
Please describe any language, cultural and/or achievement/developmental level differences that create instructional concerns in your class:

See description of needs above in the box "Student Differences"

Patterns of Achievement
Indicate the number of students for each pattern of achievement:

8 Below grade level 0 At grade level 0 Above grade level

Other classroom conditions
Describe other classroom conditions (if any) including student demographics that have implications for teaching and what might be observed in your classroom:

I.S., N.F. and M.M. have short attention spans. These students may lose interest in lesson and want preferred activity time. M.M. may become defiant and aggressive. I.S. may begin throwing items or falling out of her seat. N.F. may roam the room and refuse to cooperate.

A.J., J.B., and R.S. can write short sentences with prompting.

Students may leave to go into their cooperating classrooms for calendar time or leave for speech/ OT.

Implications for Instruction
Determine ways you will address individual needs based on identified student differences.

- Personal work schedules- prompting "work then play"
- Picture representation of ideas for understanding/ indentifying
- Hand-over-hand
- Modeling
- Highlighted words for tracing
- Annotated notes to demonstrate understanding

Context for lesson

1. Explain how this lesson relates to the unit of study or your broad goals for teaching the topic:

   My cooperating teacher does not teach many science lessons. She is not supplied with a FOSS kit. She suggested this topic because the students have shown interest in water. In April, the students will be taking a field trip to a camp where they will fish. The students will be required to wear lifejackets so they will float if they fall in. My teacher wants to build background knowledge about sinking and floating to enhance their experience of being near the lake.

   Based on the curriculum map, the unit is taught earlier in the year for Kindergarten classes in the JCPS district.

My goal for this lesson is that the students will be introduced to classify objects based on their properties. Sinking and floating are a way to group objects.

2. Describe the students' prior knowledge of the content of the lesson:

   Students have had limited science experiences. They have covered shadows and observe the weather on a daily basis. Some students may have experience with swimming and wearing floatation devices. They may say that the devices help them to not drown.

3. Identify critical student characteristics or attributes that affect student learning:
   - Short attention span
   - Communication struggles- nonverbal
   - Auditory processing struggles
   - Comprehension of topic
   - Lack of fine and gross motor skills
   - Following directions

4. Describe culturally responsive teaching strategies designed to address student characteristics:
   - Pictures for responses
   - Prompting/Cueing
   - Visual representations
   - Hand motions

Learning Objective(s) OR Learning Target(s)

1. Students will identify objects that sink or float according to their observations.
2. Students will illustrate their observations. (A.J., J.B., and R.S. will write 1 sentence about their observation).

Connections to Standards

SC-EP-1.1.1

Students will classify material objects by their properties providing evidence to support their classifications.

Objects are made of one or more materials such as paper, wood and metal. Objects can be described by the properties of the materials from which they are made. Those properties and measurements of the objects can be used to separate or classify objects or materials.

DOK 3

Objective 1 relates to SC-EP-1.1.1 because students are using the properties of objects to identify whether the objects sink or float. The objects will be made of different materials which allows them to be classify them into groups based on buoyancy.

Assessment Plan

Using the tabular format below, describe the way each learning objective/target will be assessed formatively to determine student progress and the way you will modify instruction when necessary. Describe any summative assessment to be used as a part of this lesson. Include copies of the assessment instruments and scoring criteria or rubrics.

Objective / Assessment Organizer

Objective Number	Type of Assessment	Description of Assessment	Depth of Knowledge Level	Adaptations and/or Accommodations
Objective # 1	Formative	Classify the object as sink or float	DOK 2 Comprehension	Prompting/Cueing, personal schedule chart, visual aid
Objective # 2	Formative	FACTs-Annotated Drawing: A picture representing their observation	DOK 3 Application	Prompting/Cueing, hand-over-hand, highlighted lines, visual aid

Resources, media and technology

- 2 plastic bowls
- Water
- Candy: Hershey kisses, Three Musketeer bars, Conversation Hearts, Peep Marshmallows (mini sized)
- Worksheet (8 copies) (electronic version)
- Plain Paper
- Pictures of sink/float
- Pencil
- Crayons
- Highlighter
- SMARTBoard
- Projector
- Computer
- Floaties
- Beach ball
- Wooden block
- BINGO dabbers
- Easels

- 4 puzzle pieces
- http://kidshealth.org/kid/closet/experiments/candy_sink.html

Procedures

Engage- To access prior knowledge and hook students

- (5-8 min) Demonstration- wearing arm floaties
- Students are on the carpet and a desk with a bowl of water is in the front of class
- SAY: Have you ever been swimming? Does your mom and dad make you wear these? (Wait for response)
- Display worksheet on SMARTBoard
- Place beach ball in the water
- Ask for student observations (On or under the water?) Color in correct column on worksheet.
- Place wooden book in the water
- Ask for student observations (On or under the water?) Color in correct column on worksheet.
- Show the puzzle pieces of sink and float
    1. SAY: We say that an object floats when it is on the water. "On" and "float" are the same thing (rub palms together).
    2. SAY: We say that an object sinks when it is under the water. "Under" and "sink" are the same thing (rub palms together).
- (2-3 min) Explain the experiment.

Explore

- (8-10 min) Experiment
- Each table has a bowl of water- use the bowl from demonstration
- Each student has a worksheet and a BINGO dabber.
- SAY: Today, we are going to look if candy is on or under the water.
- Before each candy, each student will make a guess on the worksheet if the candy piece will sink or float.
- As a class, each student will place the same type of candy piece in the water.
- Students make observation if it sinks/under or floats/on
- Students dab the correct column if identify if the candy sinks or floats.
- The candy piece will be removed and the process of guess and observing will repeat.
- The candy order:
    1. Hershey Kiss
    2. Three Musketeer
    3. Conversation Hearts
    4. Peeps Marshmallow
- Hand-over-hand can be used to help with dabber. Student can point to sink or float to indicate their observations.

Explain (2-3 minutes)

- Students will discuss why they think the candy either sank or floated.
- SAY: The candy's weight affects if it sinks of floats. (Show puzzle pieces of heavy and light)
- Students will hold candy pieces. Call on students to say if the candy is heavy or light.

Elaborate

- (8 min) FACTs-Annotated Drawings

- Students will make a drawing of their observations.
- For the students who can write:
    - Make drawing
    - Label what they draw (Teacher can write under their words for spelling and legibility)
- For the students who cannot write/nonverbal
    - Color a premade picture of sink and float.
    - Trace the highlighted words "Sink" and "Float" (Using hand-over-hand)
    - Students may color on easels.

Evaluate

- (1-2 min) Self-reflection
- Students will give themselves a smiley face or sad face based on their cooperation and effort.
- Students who can write will draw their face
- Students who cannot write/nonverbal can point to a face. Teacher will write a face.
- Faces drawn on the worksheet and the drawing.

Pre-lesson Instructions/ Expectations

- Students will place candy gentle into the water when told.
- Students will not eat the candy.
- Students must be sitting to participate.
    - Student not following directions will have to sit out for a turn.
    - follow directions, Classroom Management (Throughout the lesson)
- Refer to on/float and under/sink as the "same thing" with hand motions.
- Refer to stop light colors for behavior decisions.
- "Good hands" when students are touching the candy or others.
- Refer to personal work charts.
- When students are overwhelmed, provide a timer for work time.
- Allow for preferred activity time.

<u>Lesson Analysis and Reflection</u>

ANALYZE AND EVALUATE YOUR LESSON WITHIN TWO DAYS OF TEACHING THE LESSON.

I was pleasantly surprised at how well the lesson went. The students were very engaged with the experiment. There were few behavior issues. N.F. and I.S. were cooperative during the lesson. Throughout the day, the students continued to talk about sink and float.

Some students struggled with dotting the correct line so a modification was to fold the paper so only one line was showing at a time. The students also tested a jelly bean for the final line of the data chart.

Instead of writing a whole sentence, my cooperating teacher thought it was best for the students to complete a sentence with the correct term. After drawing their picture, I annotated the drawing to identify the candy, water, and if the candy was on or under the water.

For students who cannot write, the word was written in highlighter for the students to trace with hand-over-hand assistance. Instead of coloring a picture, they identified (with assistance) to the picture that corresponded to the term in the sentences. It was important for these students to work cooperatively with the teacher and stay engaged with the lesson.

During the lesson, several students were pulled out to go to cooperating classrooms or speech. D.H . and Z. W. were gone for the entire lesson. M.M. return during the picture drawing, but missed the experiment. N.F. was present for the demonstration and the beginning of the experiment.

1. Establish the levels of student performance for each learning objective/target. Attach rubrics, criteria or cut scores used in this determination.

   To determine levels of performance for Objective 1, I evaluated if the data chart was complete and accurate.

   To determine levels of performance for Objective 2, I evaluated the drawing to ensure the picture and the sentence matched and if both were accurate based on the observation during the experiment.

2. Go back to each learning objective/target. Identify specific accomplishments or problems that the groups of students demonstrated for each learning objective/target.

Learning Objective/Learning Target #	Names of Students Below Criteria	Names of Students Met Criteria
1		R.S., J.B., A.J., and I.S.
2		R.S., J.B., A.J., and I.S.

Met objective with verbal prompting and cueing from teacher- R.S., J.B., A.J.
These students were engaged during the lesson. They picked up on the terms “sink” and “float.” While I was expected the students to answer my demonstration questions with “on” or “under,” J.B. answered by questions using “sink” and “float.” These students were able to interchange “on” with “float” and “under” with “sink” with some prompting. I believe this shows an understanding of the concept beyond the data chart and the drawing.

Group A: R.S., J.B., A.J.

Met objective with physical and verbal prompting from teacher- I.S.

While I.S. met the objective, she did so due to one-on-one physical and verbal prompting from the teacher. Her readiness level is not at the same level as the students in Group A. Due to her disability, she does not have the ability to fully understand the concepts of sink or float. She does not have the communication skills to express her knowledge of the content. Without the assistance from the teacher, she would not have been able to match the sink and float to the corresponding pictures. She requires repetition of the content.

Group B: I.S.

Absent from the lesson- D.H., Z.W., N.F., and M.M.

Since these students were not present for the lesson, I do not have data to evaluate their performance. This lesson was quick and simple. It can be completed at another time with this small group of students.

Group C: D.H., Z.W., N.F., and M.M.

3. How can you now use these patterns and trends for planning the next lesson?

a. For each category of students, plan specific differentiated instructional activities to move all students forward.
b. Design corrective activities for reteaching the learning objective(s)/target(s) for students who did not meet the learning objective(s)/target(s).
c. Design enrichment activities to extend learning for students who did meet the learning objective(s)/target(s).

Student Group	Corrective Activity	Enrichment/Extension Activity
A		Using a similar chart, students will find objects at school or home that sink of float. They will mark their predictions and observations.
B		To provide repetition of content, she will complete the experiment again with Group C members.
C	In order for these students to experience the lesson, these students will complete the experiment while Group A is in their cooperating classroom. Group A could also be given preferred activity time in order to complete the lesson.	

4. Describe the way(s) you plan to report or plan to communicate learning results to students and parents.

   During the lesson, the students self-evaluated their work by placing a smiley face on their paper. I agreed with their evaluation as a form of feedback. During carpet time, the teachers reviewed the lesson and gave specific feedback about the students' cooperation and predicting skills.

   The learning results were communicated to the parents by sending home the student work. My teacher wrote notes to the students saying, "Good guessing." She will also write about the lesson in her weekly newsletter with suggestions for extension activities. For I.S.'s parents, my teacher wrote "VP" and "PP" to show that data chart and drawing were completed with verbal and physical prompts.