

CAFEA Portfolio
focus on Math and Science
Instruction

Introduction to Teaching

Student Self-Assessment Checklist

Rate yourselves on the following items, using this scale:

0= Rarely, or not at all , 1 =Occasionally, 2= Most of the time, 3=Always

- _____ It is obvious I care
- _____ I am dependable and my attendance record reflects this.
- _____ I am punctual.
- _____ I have developed a good rapport with my cooperating teacher.
- _____ I turn in my journals/homework when required.
- _____ I know all of the students in the class by name.
- _____ I have established a rapport with students.
- _____ I have worked with students one-on-one.
- _____ I have worked with students in small groups.
- _____ I speak clearly and audibly to the class.
- _____ I have learned to give clear explanations and directions.
- _____ I have established effective questioning techniques to guide students' learning.
- _____ I encourage all students to participate.
- _____ I am patient, courteous, understanding and considerate.
- _____ My cooperating teacher takes me seriously because of my efforts.
- _____ I have read materials that help me understand issues that come up in the class.
- _____ I give praise to students and encourage them to learn.
- _____ I have applied what we discuss in class to my teaching assignments or community service.
- _____ I provide a positive role model to the students in the class.
- _____ I have a cheerful disposition.
- _____ I have given attention to detail.
- _____ I readily perform all tasks I am asked to do.
- _____ I support and follow all of the school policies
- _____ I will maintain confidentiality.
- _____ I consistently do more than the minimum of ____ hours a week.
- _____ I have been responsible for planning and presenting lessons to small groups.
- _____ I have been responsible for planning and presenting lessons to the whole class.
- _____ I have studied and prepared content material for the class.
- _____ I have established myself in a teaching role.

	Total Points
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YouthTEACH2Learn Program Portfolio: What makes a teacher good?

What makes a Teacher Good?

Think of all the teachers that you have had throughout your education (from pre-school to present). Some teachers will stand out as being better than others. What makes a teacher great? In the table below list ten traits that made your teachers the best teachers that you have had. Next to each space write why you feel that the trait is important. Which teachers did you learn from the most? Why?

Part I – List 10 Traits of a good teacher

TRAIT	Why is this trait important for a teacher to have?	Did this trait help you learn more from this teacher? Why?

YouthTEACH2Learn Program Portfolio: What makes a teacher good?

Part II – Work with your group to prioritize top 10 traits.

Using your table from Part I, work with your group and decide what are the ten traits that make a good teacher. Record these traits in the table below from the most important to the least important.

TRAIT	Why is this trait important for a teacher to have?

YouthTEACH2Learn Program

Portfolio: What makes a teacher good?

Part III – How did the group’s traits (Part II) compare to your individual table of traits (Table I)? What similarities did you find with the other members of your group? What differences?

Part IV - How can you use the information in the tables to help you when you are teaching? Give a one to two paragraph answer and be specific.

Part V – Reflect on the “What Makes a Teacher Good?” activity, what characteristics do you believe are important for a team to work efficiently and effectively to complete. Give a one to two paragraph answer and be specific.

YouthTEACH2Learn Program The Effective Team Member: A Checklist

Checklist: Effective Team Member

This checklist is used to assess and give feedback on daily student performance in their teams.

	Level 1 Seldom	Level 2 Sometimes	Level 3 Often	Level 4 Always
Contribution to Group's Tasks and Completion of Personal Tasks				
<input type="checkbox"/> Participates actively				
<input type="checkbox"/> Models caring about goals				
<input type="checkbox"/> Helps direct the group in setting goals				
<input type="checkbox"/> Does not impede the group's goal setting				
<input type="checkbox"/> Helps direct group in meeting goals				
<input type="checkbox"/> Does not distract the group from meeting its goals				
<input type="checkbox"/> Thoroughly completes assigned tasks				
Discussion Skills and Active Listening				
<input type="checkbox"/> Shares many ideas related to the goals				
<input type="checkbox"/> Encourages all group members to share their ideas				
<input type="checkbox"/> Empathetic to other people's feelings and ideas				
<input type="checkbox"/> Listens attentively to others				
Contribution to Group's Evaluation, Problem-solving and Cohesion				
<input type="checkbox"/> Encourages group to evaluate how well they are working together				
<input type="checkbox"/> Involves the whole group in problem-solving				
<input type="checkbox"/> Actively participates in helping the group work better together				

Adapted by Hilary McLeod, Peel District School Board from the [Bellingham Schools Home Page](#), Kulshan Middle School.

YouthTEACH2Learn Program

Becoming an Effective Team Member

Becoming an Effective Team Member

In order to be a strong successful team member you must look beyond your personal preferences and think about what is best for the entire teaching team and the elementary students you will be teaching. You must be respectful of your team members' ideas and opinions while taking an active role in the task of helping move the process forward to completion. Here are some things that need to be considered as you work through the "What Makes a Teacher Good?" activity.

Effective Team Member Reflection

As you work together, think about these questions – they will be incorporated into your journal reflection at the end of class.

- 1). Were you prepared for your team meeting? (Did you complete Part I of the exercise?)
- 2). Were you an active participant when creating the team's 10 traits? What could have you done to improve your participation?
- 3). Did you stay on task until the team's list was complete? Did you make sure that your conversations had to do with the team's work and were not off topic?
- 4). Did you encourage others in your team to share their traits and explain why they valued the trait/characteristic?
- 5). Did you listen to other members' ideas and opinions? Were you empathetic to their feelings?
- 6). When there was a conflict between two individuals from your team, did you help to problem solve to help the individuals reach consensus?
- 7). Did you volunteer for tasks- even ones that you were not particularly anxious to be involved in- enabling that the group to work better together?

Preparing for the Classroom

Teaching Strategies Reflection

“The Standards rest on the premise that learning is an active process. Learning is something that students do, not something that is done to them. “Hands-on” activities, while essential, are not enough. Students must have “minds-on” experiences as well.”

(National Academies Press- Science Standards)

Students have a variety of learning styles; interests and prior knowledge, to engage all students in learning a teacher must use a variety of teaching strategies. Reflect on your previous experience as an elementary and middle school student and the different strategies your teachers used to teach.

Identify the two most effective strategies you remember your teachers using; discuss why they were an effective part of the lesson and how these strategies helped you understand the content.

YouthTEACH2Learn Program

Assignment: Peer Teaching Lesson Plan Format

Peer Teaching

Lesson Plan Template for Peer Lesson

Lesson Name

Learning Objective/Question(?)

Background Information

Materials

Vocabulary

Lab Activity

Closure

**YouthTEACH2Learn Program
Peer Teaching Demo Lesson Worksheet**

YouthTEACH2Learn Program Peer Teaching Worksheet Format

Worksheet Template for Peer Lesson

Lesson Name

Big Idea Question/Background Information

Materials

Procedure

Observations

Questions

YouthTEACH2Learn Program Assignment: Peer Lesson Evaluation

Assignment: Peer Lesson Evaluation

Part 1: The purpose of this assignment is for you to develop a 15-minute lesson on any topic that you will teach to your classmates. You must use the standard lesson format to develop your lesson and provide copies of the lesson plan to your classmates at the beginning of your lesson. In addition, you will be required to evaluate the lessons developed by your classmates. Please use the following form as a guideline to develop your lesson.

Student _____

Date: _____ Lesson Topic _____

1). Please list and rate the quality of today's lesson and activities on a scale of 1-5.

1=Inadequate, 3=Average, 5=Excellent

<i>a. Lesson objective(s) were clear.</i>	1	2	3	4	5
<i>b. Lesson was well planned and paced.</i>	1	2	3	4	5
<i>c. Material was well organized.</i>	1	2	3	4	5
<i>d. Developed rapport with class.</i>	1	2	3	4	5
<i>e. Presentation skills: Poised.</i>	1	2	3	4	5
<i>f. Presentation skills: Maintained eye contact.</i>	1	2	3	4	5
<i>g. Presentation skills: Projected voice and rate of speaking</i>	1	2	3	4	5
<i>h. Verified students understood key lesson concept(s)</i>	1	2	3	4	5
<i>i. Engaged all students in the class.</i>	1	2	3	4	5
<i>j. Lesson objectives were met</i>	1	2	3	4	5

2). Describe 2 ways the lesson could be improved

3). What were the 2 strongest parts of this lesson or how the Student Teacher taught the lesson.

Teaching Critiques Reflection

- 1). Identify 3 teaching skills/strategies that you observed in your peers' lessons that you believe are needed for a powerful lesson. For each skill you have cited give a minimum of two specific examples naming the Student Teacher, the specific lesson and how he/she demonstrated the skill/strategy. Remember to use specific details.
- 2). Identify 3 things that you need to avoid when you are teaching. Explain how you might work on making sure that these 3 things do not occur during your lesson.

YouthTEACH2Learn Program Classroom Observation

Classroom Observation Form

Teacher's Name: _____ E-mail: _____

School Name: _____ Room: _____ Date: _____ Time: _____

Number of students in the class (M): _____ (F): _____

Are there name tag(s) on the desk? _____

What equipment is in the room: _____TV/VCR _____Overhead _____White Board _____Chalkboard _____

Sink: _____ Computer/LCD Projector _____Smartboard

How are students grouped in the classroom (do they site in groups of 4 or in rows, etc)?

Diagram the classroom: Teacher's Desk, sink, board, students desks, electrical outlets etc

What methods does the teacher use to get the students' attention?

What do you need to be successful with these students?

Notes on teaching methods/techniques

Observing Behavior

Behavior to be observed (e.g. correcting students)

Responses:

Teacher

Student

Results:

What I think about this/What I wonder about this:

YouthTEACH2Learn Program Assignment: Developing Lessons

Developing Lessons

The purpose of this assignment is to develop the standards-based lesson that you will be teaching to your elementary school students. You will work as a class to review the standard, develop the lesson plan, worksheet and hands-on lesson and create the teaching kit for the lesson.

In your teaching teams, you will package the lesson kit, practice teaching the lesson, travel to your assigned elementary school to teach the lesson in the assigned classrooms.

After teaching, you will debrief the lesson with your teaching partners and then with the entire class to determine if any changes need to be made before teaching the lesson again.

Effective Lesson Design

Standard templates have been created to help you develop your lessons. Effective lessons:

- Are engaging, age-appropriate and aligned to the state's content standards (i.e. standards-based)
- Incorporate key concepts and vocabulary to support the lesson. The concepts and vocabulary must be simplified so that the children understand the the lesson.
- Include a worksheet/lab sheet to keep the students actively engaged in the lesson and teach them good lab techniques/skills.
- Contain all of the necessary teaching and support materials required to teach the lesson.
- Utilize the team's talents to develop and teach an engaging, animated lesson present. Good time management and organization are essential skills needed to achieve this goal.

YouthTEACH2Learn Program Assignment: Developing Lessons

Developing Lessons - Team Assignments

Task	Assigned to	Due Date
<input type="checkbox"/> Identify standards that will be taught.		
<input type="checkbox"/> Identify the big ideas that you want to focus on for the lesson.		
<input type="checkbox"/> Research background information and sample lessons for selected standards (use portfolio research entry.doc).		
<input type="checkbox"/> Write up lesson plan (use Portfolio_lesson Plans and Standard Lesson Format.doc)		
<input type="checkbox"/> Evaluate lesson plans developed by teams and agree on a common lesson that will be taught (use Assignment_Class Lesson Evaluation.doc).		
<input type="checkbox"/> Design hands-on activity to illustrate concept.		
<input type="checkbox"/> Develop worksheet (use Standard Worksheet format.doc)		
<input type="checkbox"/> Develop list of required materials and quantities.		
<input type="checkbox"/> Order materials (use materials order form.doc)		
<input type="checkbox"/> Identify vocabulary words/concepts that will be included in the lesson and create vocabulary cards.		
<input type="checkbox"/> Identify questions you will ask to determine if students understood concept.		
<input type="checkbox"/> Test lesson with teammates.		
<input type="checkbox"/> Develop teacher's guide that contains a list of student and teacher resources, as well as background information (use Portfolio_research entry.doc).		
<input type="checkbox"/> Package lesson kit prior to teaching assignment and update information on Teaching Log.		
<input type="checkbox"/> Debrief on Lesson with teaching partners & classmates		
<input type="checkbox"/> Make necessary modifications to lessons.		
<input type="checkbox"/> Package lesson kit prior to teaching assignment and update information on Teaching Log.		
<input type="checkbox"/> Teach lesson again		
<input type="checkbox"/> Archive lesson to online and to portfolio (use archiving lessons.doc)		

IMPORTANT: It takes 3 weeks (minimum) to order materials and receive the materials from a scientific supply company. **Before going ahead with the lesson, call to verify that all materials are in stock.**

Background Research for Lessons

Directions:

The purpose of this exercise is to collect and summarize background information about the content you will be teaching during the lesson. The information will be provided to the elementary school teacher as a teaching resource and posted to the Lesson Repository. You will have a total of six entries by the end of the school year.

For each standard that you teach the research entry should include:

- annotated bibliography with 2 teacher websites or resources
- annotated bibliography with 2 student websites or resources
- report (minimum 3 paragraphs) of the information about the content standard
- description of how my research supports the specific grade level standards
- New ideas and questions about the content

What is the name of the lesson: _____

Standard(s): _____

Standard Lesson Format

Lesson Name

Targeted Grade Level and Standard(s)

Learning Objective/Question

Engage (Focus, Motivate, Think)

Explore (Explore, Compare, Test)

Explain (Develop, Clarify, Show Understanding)

Evaluate (Questions, Discussion, Quiz)

Extend (Apply, Reinforce, Assess)

Portfolio Entry: Lesson Plan

Directions:

The purpose of this exercise is to write your lesson plan(s). Complete one for each lesson taught, you will have a total of six plans by the end of the school year.

The journal entry should demonstrate the critical components of an effective lesson.

Make two copies one to hand in and one for your Portfolio.

What is the name of the lesson:

Standard(s):

Learning Objective:

- | | |
|----------|---|
| Engage | How will you engage the students in the lesson?
Identify prior knowledge – How will you introduce the lesson? |
| Explore | Describe the hands-on activity used to illustrate the concepts. |
| Explain | What are the key vocabulary words that will be taught in the lesson?
What is the background information for the lesson? |
| Evaluate | How will you check for understanding (questions, drawings, etc)? |
| Extend | What could teachers do to extend your lesson (look at web sites, videos, etc)?
Claims and Evidence, Extensions for English Language Learners |

YouthTEACH2Learn Program Assignment: Class Lesson Evaluation

Class Lesson Evaluation Form

Part 1: The purpose of this assignment is for you to evaluate the proposed lesson plans and reach consensus with your classmates on the class lesson that will be to the elementary school students. Please use the following form as a guideline to develop your lesson.

Class Lesson Evaluation Rubric

How would you rate the lesson in each of these areas: (On a scale of 1-4)							
1=Does not consider, 2= Gives minimum consideration, 3=Gives some consideration, 4=Gives Total Consideration							
1). Standards:	Team	1	2	3	5	5	6
a). Does the lesson address one or more of the California Content Standards?							
b). Does the lesson fit into the district's (or schools') matrix/schedule?							
c). Does the lesson enrich the schools' science or math programs (It does not duplicate what teachers are doing or have already done)?							
2). Student Interest and Level:	Team	1	2	3	5	5	6
a). Will the lesson be exciting for the students?							
b). Is the lesson age appropriate?							
c). Does the lesson help the students better understand a science or math concept?							
d). Does the lesson give the students the opportunity to question, observe and investigate?							
e). Will the lesson be exciting for the students?							
f). Is the lesson age appropriate?							
3). Classroom Management:	Team	1	2	3	5	5	6
a). Is the lesson designed so that all students are actively involved in the hands on portion of the activity?							
b). Does the lesson fit into the time allotted for lesson (instruction, hands-on and closure)?							
c). Is the lesson easy to break down and organize for the next class?							
d). Can the lesson be taught easily in all classrooms (regardless of how they are configured)?							
4). Lesson supplies:	Team	1	2	3	5	5	6
a). Are supplies that are needed for the lesson affordable?							
b). Are the supplies needed for the lesson, available in the quantities that would be required to teach the lessons in all classrooms?							
c). Will the supplies be easy to transport to the schools and from classroom to classroom?							

5). Comments

Standard Worksheet Format

Lesson Name:

Question/Hypothesis

Materials

Procedure

Observations

Conclusion Questions

YouthTEACH2Learn Program Lesson Evaluation

Please evaluate each Student Teacher's performance – use one column per Student Teacher

How would you rate the Student Teacher on each of these areas: (On a scale of 1-4)					
1=Needs Improvement, 2= Satisfactory, 3=Good , 4=Excellent					
1) Professionalism	(Student Teacher name)				
<i>a). Was Student Teacher punctual?</i>					
<i>b). Was the Student Teacher dressed appropriately?</i>					
<i>c). Did the Student Teacher use appropriate language?</i>					
<i>d). Did the Student Teacher demonstrate courteous, positive behavior?</i>					
<i>e). Was the Student Teacher well prepared and organized?</i>					
<i>f). Did the Student Teacher clean up lab materials?</i>					
2). Performance					
<i>a). Knowledge of content was evident.</i>					
<i>b). Questioning techniques were effective.</i>					
<i>c). Willing to take directions and learn from suggestions</i>					
<i>d). Demonstrated resourcefulness, initiative, or problem-solving abilities</i>					
<i>e). Developed rapport with students</i>					
<i>f). Demonstrated ability to think on feet.</i>					
<i>g). Participated when not teaching front of class (One-one-one or group tutoring, etc)</i>					
3). Recommended Grade					
4). Comments					

Cooperating Teacher Signature

Date

Lesson Debrief activity after teaching the first lesson

Directions:

The purpose of this exercise is to think about your teaching experience; think about the things that worked, as well as those that didn't and why. Take a few moments to write your thoughts, insights about your lesson. Share out with your team and classmates.

What lesson did you teach: _____

Standard(s): _____

1. How did your team teach the lesson?
2. How did you set behavior standards? Did you have any classroom management issues while you were outside?
3. What were the strongest elements of the lesson (Vocab, grouping, hands-on activity, data collection, graphing or conclusion)?
4. Were your students interested in your lesson? How did you motivate them to want to learn about work and energy?
5. Which elements does your team need to improve? Do you have ideas on ways to improve the weak areas of your lesson?
6. Does the worksheet need to be modified in any way? If so, how?

Lesson Debrief – after teaching the lesson the second time

Take a few moments to reflect on your recent teaching experience and write your thoughts, insights, and experiences about the following questions.

Once you have completed this form, meet with your teaching team to discuss. What are the similarities? Differences?

What lesson did you teach: _____

Standard(s): _____

1). Which part of your lesson did you feel was most effective and why?

2). Which part of your lesson was the most difficult to teach and why?

3). What could be done to improve each section of the lesson (Be specific)?

4). Explain the teaching strategy that you used that made the kids understand the science or math concept.

5). Evaluate your teaching team on:

Time management	1...2...3...4...5 (5= high)
Classroom control	1...2...3...4...5 (5= high)
Teaching the standard	1...2...3...4...5 (5= high)
Teamwork/teaching	1...2...3...4...5 (5= high)
Motivating your students	1...2...3...4...5 (5= high)

Archiving Lessons

Lessons developed by the YouthTEACH2Learn program will be archived online and available to Student Teacher and teachers participating in the program.

The electronic lesson will contain the following elements:

- Title Page (include standard, grade level, members of Student Teacher team, high school, city, state and zip)
- Lesson Plan
- Worksheet
- Teacher Guide
- PowerPoint Presentation for classroom use
- Recommendations for use

Electronic Portfolio Considerations

Electronic Portfolio Folders will be set up for each student. Please make sure to set up subfolders to match the section headings above and store all the required documents within the sub-folders. Follow the appropriate naming conventions at your school site.

YouthTEACH2Learn Program Teaching Schedule

Team Members:												
High School Advisor	<i>High School</i>											
Elementary School												
Grade to Teach (circle one)	1 st	2 nd	3 rd	4 th	5 th	6 th	Content Standards (circle one)			Earth	Life	Physical
Lesson Name												
# of classrooms team will visit				# of evaluation forms required								
Date	Time	Teacher	# of students	# of kits packed	# lab sheets packed	# students taught	Picked up lesson evaluations					
Totals												
Additional materials required:												

Developing Effective Teaching Strategies

Classroom Management Reflection

You have now completed half of the lessons that you will teach for this school year and have had the opportunity to use a variety of teaching strategies to work with your students (small group vs large groups, hands-on vs. demonstrations etc). Reflect back on your various lessons and explain what classroom management strategies that you used to:

Example:

Engage students who were not actively participating

Set parameters with your students.

Keep the class actively engaged without letting the noise level get too high or students get out of control.

Make sure that students of all ability levels understood the lesson

Give students the opportunity to respond to your questions without taking over the discussions.

Explain the strategies that you used and give specific examples of how they worked in your classes.

Questioning & Inquiry Reflection

"Questions may be the most powerful technology we have ever created. Questions and questioning allow us to make sense of a confusing world. They are the tools that lead to insight and understanding."

Questioning (2002)

"Asking questions is at the heart of inquiry-based learning. The goal is not to ask just any questions, of course, but ones that kids honestly care about. Your role is to guide the kids in finding the answers themselves and encourage them to ask new questions along the way."

<http://www.youthlearn.org/learning/approach/inquiry.asp>

In order to guide children's learning you must learn to ask leading questions. A question can help a child: (1) focus on a particular aspect of a hands-on activity (2) understand what they have observed or (3) make connections between the real world and what is taking place in the classroom. Explain some of the ways that you have used questioning to help students. Be specific; include both your questions the students' responses and how you believed your question(s) helped the student.

Learning Styles

How are you Smart?

This survey will help you identify your strongest intelligences. Read each statement. If it expresses some characteristic of yours and sounds true for the most part, circle YES. If it doesn't, circle NO. If you just can't decide, leave it blank.

	Circle One		Identify if you agree with the statement or not
1	YES	NO	I'd rather draw a map than give someone verbal directions.
2	YES	NO	If I am angry or happy, I usually know exactly why.
3	YES	NO	I can play (or used to play) a musical instrument.
4	YES	NO	I like to compose songs or raps.
5	YES	NO	I can add or multiply quickly in my head.
6	YES	NO	I help friends deal with feelings because I deal with my own feeling well.
7	YES	NO	I like to work with calculators and computers.
8	YES	NO	I pick up new dance steps quickly.
9	YES	NO	It's easy for me to say what I think in an argument or debate.
10	YES	NO	I like word games such as Scrabble, Anagrams, or Password.
11	YES	NO	I enjoy figuring out how to take apart and put together toys, simple machines, and/or puzzles.
12	YES	NO	I like to gather together groups of people for parties or special events.
13	YES	NO	I listen to music on the radio, CD's, or cassettes for much of the day.
14	YES	NO	I like to build things or putting things together.
15	YES	NO	I like to work puzzles and play games.
16	YES	NO	Learning to ride a bike (or skate or ski) was easy.

YouthTEACH2Learn Program Assignment: Multiple Intelligences Checklist

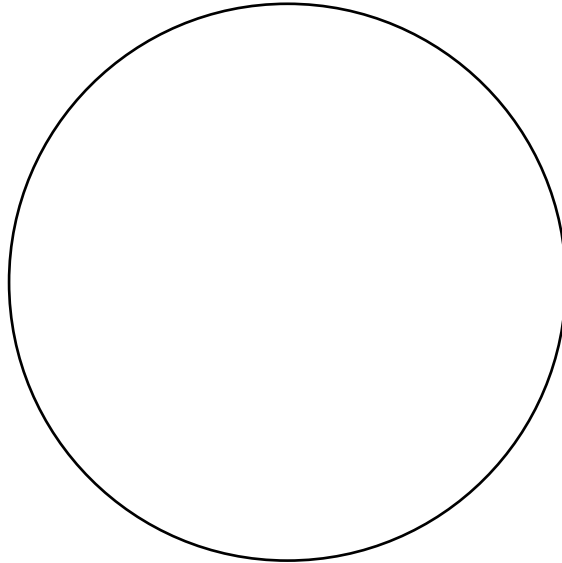
	Circle One		Identify if you agree with the statement or not
17	YES	NO	I am irritated when I hear an argument or statement that sounds illogical.
18	YES	NO	I can convince other people to follow my plans.
19	YES	NO	My sense of balance and coordination is good.
20	YES	NO	My mind searches for patterns, relationships, or logical sequences in things.
21	YES	NO	I need to touch things in order to learn more about them.
22	YES	NO	I like riddles and tongue twisters.
23	YES	NO	I have vivid and colorful visual dreams.
24	YES	NO	I can identify when there is a key change in a song.
25	YES	NO	I like work with numbers and figures.
26	YES	NO	I like to sit quietly and reflect on my inner feelings.
27	YES	NO	I can usually find my way around unfamiliar places.
28	YES	NO	I like to hum, whistle, and sing in the shower or when I'm alone.
29	YES	NO	I'm good at athletics.
30	YES	NO	I enjoy writing detailed notes to friends.
31	YES	NO	I have lots of hobbies or other activities that I prefer to do on my own.
32	YES	NO	I'm sensitive to the expressions on other people's faces.
33	YES	NO	I stay "in touch" with my moods. I have no trouble identifying them.
34	YES	NO	I am sensitive to the moods of others.
35	YES	NO	I have a good sense of what others think of me.
36	YES	NO	Books are important to me.
37	YES	NO	I enjoy playing around with a chemistry set or other science materials.
38	YES	NO	I prefer reading things that have many illustrations.
39	YES	NO	It is hard for me to sit still for long periods of time.
40	YES	NO	I have a pleasant singing voice.
41	YES	NO	I often have opinions that set me apart from the crowd.
42	YES	NO	I prefer group sports like softball or volleyball to solo sports such as running or swimming.
43	YES	NO	I frequently think about what I want to be when I grow up.
45	YES	NO	I have an easy time remembering stories, poems, or other items.
46	YES	NO	If I hear a piece of music once or twice, I usually can sing it fairly accurately.
47	YES	NO	I frequently ask parents and teachers questions about how and why things work.
48	YES	NO	I have at least three close friends.
49	YES	NO	I enjoy looking at holograms and can see the hidden images in the books and posters.
50	YES	NO	I get a sinking feeling in my stomach when I think I am in trouble.

YouthTEACH2Learn Program

Assignment: Multiple Intelligences Checklist

Scoring: Circle each item, which you circled as "YES." Total the number of items circled.

A	B	C	D	E	F	G
9	5	1	8	3	2	12
10	7	11	16	4	6	18
17	15	14	19	13	26	32
22	20	23	21	24	31	34
30	25	27	29	28	33	35
36	37	38	39	40	41	42
44	46	48	49	45	43	47
Totals						



- A: Word Smart (Verbal/Linguistic Intelligence)
- B: Logic Smart (Logical/Mathematical Intelligence)
- C: Picture Smart (Visual/Spatial Intelligence)
- D: Body Smart (Bodily/Kinesthetic Intelligence)
- E: Music Smart (Musical Intelligence)
- F: Self-Smart (Intrapersonal Intelligence)
- G: People Smart (Interpersonal Intelligence)

Module 1 Activity 1

Module #1, Activity #1: Problem-Solving

Overview:

Students need to experience the type of math instruction that we hope they will use in the lessons that they design later in the course. Therefore, each module begins with a 1-2 day problem-solving activity.

In this lesson, students estimate the number of people they think can fit in the classroom and then complete a couple of cooperative card games. Both tasks require that students work in groups, communicate clearly with each other, and come up with a strategy for clarifying and solving the problem. The activity concludes by asking students to summarize characteristics of the process used to solve the problems.

Objective: Students will:

- Solve non-traditional math problems requiring strategizing, communication and teamwork
- Reflect on the *process* of solving the problems as well as their solutions

Key Concepts and Vocabulary:

- Area, perimeter, volume, dimensions (length, width, height), estimation
- Digits, multiples, odd & even, sum
- Problem-solving strategy, cooperative groups

Materials Needed:

- For each student: “How Many People?” and Hundred Chart resource pages
- For each group: Sets of clue cards with the six clues cut up and bagged – “Tim’s Number” and “Meg’s Number”

Estimated Time:

- 1-2 class periods

Sources:

- “How Many People?” – Orange County Mathematics Project, Dr. David Pagni & Dr. Harris Shultz, CSU Fullerton
- *Get It Together*, EQUALS, Lawrence hall of Science, Berkeley, CA (1989), ISBN 0-912511-53-2

Module 1-Activity 1

Name: _____

Date: _____

Problem-Solving Activity #1

How many people can fit in this classroom?

Module 1 Activity 3

Module #1, Activity #3: Writing a Math-o-Graphy

Overview:

School experiences – and life in math classrooms in particular – have often been the subject of movies or books. Teachers have the power to inspire strong emotions, both positive and negative. In this lesson, students read two passages about learning math and then begin their own mathematical autobiographies, aka “Math-o-Graphy.”

“Corkers,” the chapter from Roald Dahl’s autobiography, may require some introduction. The setting is a private boarding school in England, and the subject is a memorable mathematics “master” who is extremely sensitive to his students’ indigestion.

Objective: Students will:

- Reflect on their own experiences learning math

Key Concepts and Vocabulary:

- Master, Brussels sprouts, pi, circle

Materials Needed:

- For each student: “Corkers” and “Introduction” readings, “Math-o-Graphy” assignment

Estimated Time:

- 1 class period (“Math-o-graphy” can be finished and revised for homework)

Sources:

- “Corkers”: *Boy*, Roald Dahl, Scholastic, Inc., 1984, ISBN 0-590-53828-4
- “Introduction”: Quoted from Margaret Wertheim in *Connecting Mathematical Ideas*, Jo Boaler & Cathy Humphreys, Heinemann, Portsmouth, NH (2005). ISBN 0-325-00670-9
- “Math-o-Graphy”: There are many versions of this type of assignment. I first saw it in CPM *Course 1*, CPM Educational Program, Sacramento, CA (2000). ISBN 1-885145-76-4

Math-o-Graphy

After reading the autobiographical sketches by Roald Dahl and Margaret Wertheim, think about your own experiences learning math. Here are some questions to help you get started:

- ✓ Which teachers have stuck in your mind, either because you really liked the way they taught math or you really hated their math lessons?
- ✓ When have you felt that you learned to look at math problems in a different way?
- ✓ What aspects of math have you really enjoyed?
- ✓ What have you disliked most about learning math?
- ✓ How might your math experiences affect the way you teach math?

Once you have some ideas to work with, write a 1-2 page autobiography (organized into three or more paragraphs) where you share your most memorable moments learning math.

Module 3 Activity 3

Module #3, Activity #3: Closure and Application

Overview:

This activity gives students a chance to learn about commonly used math manipulatives: Base 10 blocks, Unifix cubes, algebra tiles, and so on. They are asked to research a manipulative online beginning with the National Library of Virtual Manipulatives. They share their findings with their group and then begin working on a lesson incorporating manipulatives.

Objective: Students will:

- Research and share information on a math manipulative
- Begin planning a lesson that uses a manipulative

Key Concepts and Vocabulary:

- Virtual manipulative

Materials Needed:

- For each student: On-line access

Estimated Time:

- 2 class periods, one to explore on-line and a second to share findings with the group and begin planning

Sources:National Library of Virtual Manipulatives: <http://nlvm.usu.edu/en/nav/vlibrary.html>

- Other websites with templates for teacher or student-created manipulatives, e.g. www.erusd.k12.ca.us/alpha.

Module 4 Activity 1

Module #4, Activity #1: Problem-Solving – “Seats on the Bus”

Overview:

While this is the fourth in the series of problem-solving activities, “Seats on the Bus” is especially important as a model for this entire module, which focuses on effective implementation of problem-solving activities. It is a problem that is amenable to many different strategies from direct modeling with Unifix cubes to writing and solving a system of linear equations. At the end, students are asked to reflect on different aspects of the experience: the nature of the task, what was asked of students by the teacher, and the way in which discussion of student solutions was orchestrated.

Objective: Students will:

- Find a solution to a problem that involves two variables (# of 2-student seats and # of 3-student seats)
- Experience a variety of solution strategies: Modeling with manipulatives, making a drawing, counting strategies and writing & solving equations
- Reflect on the problem-solving process: Tasks, teacher talk, student discussions

Key Concepts and Vocabulary:

- Solving problems, multiple solutions

Materials Needed:

- For teacher: Copy of “Seats on the Bus” on transparency or PowerPoint slide
- For each group: Set of Unifix cubes
- For each student: Copy of “Seats on the Bus” prompt

Estimated Time:

- 1 class period

Sources:

- This problem is adapted from one used in an introductory CGI (“Cognitively Guided Instruction”) workshop presented by the San Bernardino County Office of Education in 2005

Name: _____

Date: _____

Seats on the Bus

There are 78 students on a bus. Some are sitting two to a seat, and some are sitting three to a seat. If 30 seats are used, how many seats have two students, and how many have three students?

Module 4 Activity 4

Module #4, Activity #4: Closure and Application

Overview:

In this activity, students will create and practice presenting to each other brief problem-solving lessons.

Objective: Students will:

- Summarize what they have learned about teaching problem-solving
- Create and present short problem-solving lessons

Key Concepts and Vocabulary:

- Solving problems

Materials Needed:

- For each group: Chart paper and markers

Estimated Time:

- 1-2 class periods

Sources:

- N/A

Module 6 Activity 1

Module #6, Activity #1: Problem-Solving – Probability

Overview:

Probability problems require a depth of mathematical understanding that goes well beyond the memorization of algorithms. Indeed, most probability tasks can be solved using no more than counting or multiplication. The conceptual underpinnings of this topic, however, make it a fascinating subject to teach, involving part-whole relationships, comparison of short-term vs. long-term behavior, and so on.

Probability problems also lend themselves to good classroom discussions and offer multiple opportunities for teachers to assess their students' learning. In this activity, students solve the "bags of marbles" problem, which then serves as a springboard for considering formative assessment as an integral part of lesson planning in activity #4.

Objective: Students will:

- Solve and discuss a problem related to drawing marbles from a bag
- Reflect on the problem-solving process as an example of formative assessment

Key Concepts and Vocabulary:

- Probability, marble

Materials Needed:

- For teacher: Bag with red and blue marbles or cubes
- For each group: N/A
- For each student: "Bags of Marbles" prompt

Estimated Time:

- 1 class periods

Sources:

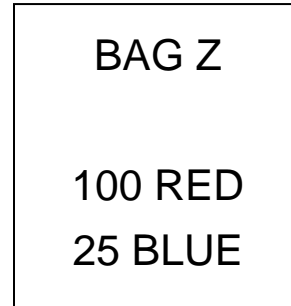
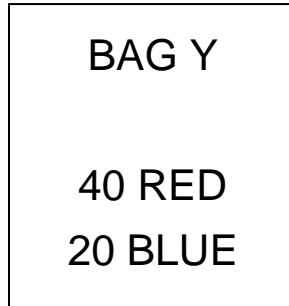
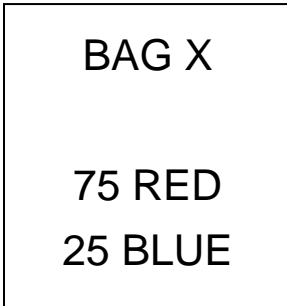
- For description of this problem, see the article in Activity #4, "Orchestrating Discussions" (*Mathematics Teaching in the Middle School*, vol. 14, no. 9, May 2009).

Name: _____

Date: _____

Bags of Marbles

Ms. Rhee's class was studying probability and statistics. She brought in three bags containing red and blue marbles. The three bags were labeled as shown below:



Ms. Rhee shook each bag. She asked the class, "If you close your eyes, reach into a bag, and remove 1 marble, which bag would give you the best chance of picking a blue marble?"

Which bag would you choose? Explain why this bag gives you the best chance of picking a blue marble. You may use the diagram above in your explanation.

Coat of Arms Activity

In order to create a safe and positive place for learning, it is important for a teacher to get to know their students and for the students to get to know each other and be comfortable with each other. The Coat of Arms Activity is a nice easy way to get to know everyone in the class.

Goals: In this unit, students will:

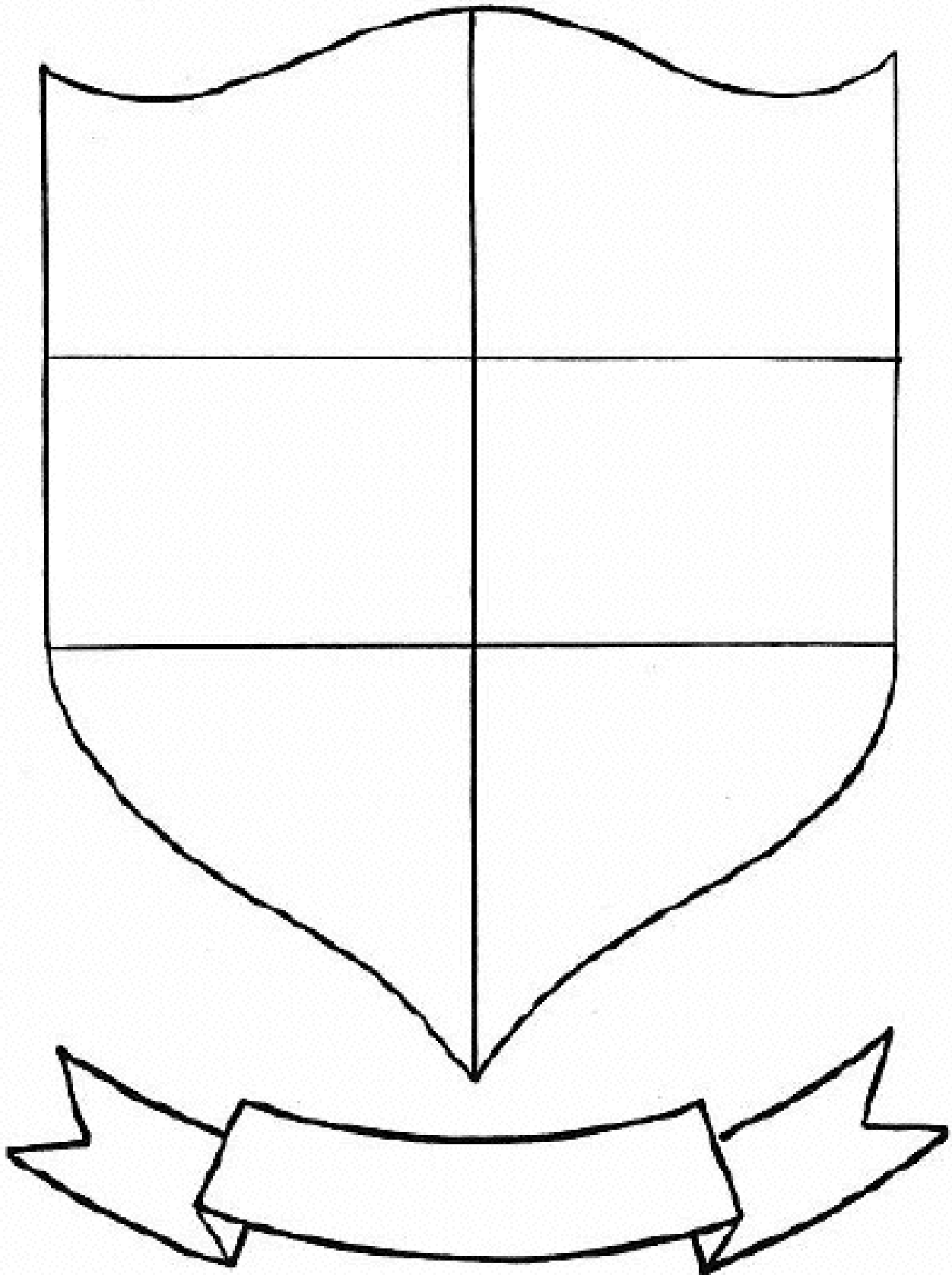
- Explore various types of ways to get to know the students in the class and promote a safe class environment.

Activities:

1. Design their own Coat of Arms
2. Share their Coat of Arms with the class
3. Post the Coat of Arms on the walls

Estimated Time:

This activity should take about 1 hour in total. Have students use 20 minutes designing their coat of arms. Have 3 students present their coat of arms each day until everyone has had a chance to share.



Visit <http://teachcalifornia.org/> and explore the different ways to get certified and employed as a teacher. This website is a great resource to understand the pathways to becoming a teacher.

Teach California Scavenger Hunt



1. What are the three high need teaching areas?
 - a. _____
 - b. _____
 - c. _____
2. Name 4 undergraduate programs that interest you.
 - a. _____
 - b. _____
 - c. _____
 - d. _____
3. Play the game show on the resources page and record your score: _____
4. What are the four types of financial aid available?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
5. Research the different types of financial aid.
6. Register and make a career plan by clicking on the “My Career Plan” page.