UBD - Part 1- Handout 2
Kristina Doubet

Materials Excerpted from

Wiggins, G. & McTighe, J. (2004). ***Understanding by Design Professional Development Workbook.*** **Alexandria, VA: ASCD.**

and

Doubet, K.J. & Hockett, J.A. (2015). ***Differentiation in Middle and High School: Strategies to Engage All Learners*****. Alexandria, VA: ASCD.**

and

Doubet & Hockett (2017) Differentiation in the Elementary Grades (ASCD).

Hall Of Recognition Performance Task (Social Studies/ELA, grades 4-5)

The state has announced the establishment of a Hall of Recognition to honor the contributions of local citizens to their community, the state, or the nation. Because you are learning about famous individuals from [Indiana], you have been asked to nominate a candidate you believe would be worthy of admission to the Hall.

Select and research the life of your chosen individual. Submit a nomination letter to the Hall's selection committee explaining your candidate's accomplishments and the contributions your candidate has made.

From Wiggins & McTighe (2004) *Understanding by Design Professional Development Workbook*. ASCD.

Mail-Order Friend Performance Task (ELA, grades K-2)

Imagine that you have an opportunity to "order" a friend by phone from a mail-order catalog. Think about the qualities that you want in a friend. Before you "order" your friend over the phone, practice asking for three characteristics that you want in a friend and give an example of each characteristic. Remember to speak loudly and clearly so that the salesperson will know exactly who to send.

From Wiggins & McTighe (2004) *Understanding by Design Professional Development Workbook*. ASCD.

Dry Walling a Kidspace Performance Task (Mathematics, grades 7-9)

When contractors give us an estimate for a job, how can we know if the cost is reasonable?

Your neighborhood is building a "Kidspace" where students from your block can hang out after school. The committee has asked you to review a dry walling contractor's proposal to determine whether the committee is being overcharged. Here are the room dimensions and cost figures for materials, labor, and a 20 percent profit for the contractor: _____.

Examine the proposal and write a letter to the committee providing your evaluation of the proposal. Be sure to show your claculations so that the committee will understand how you arrived at your conclusion.

Adapted from Wiggins & McTighe (2004) *Understanding by Design Professional Development Workbook*. ASCD

From the Mountains to the Seashore (History, Geography, Math, grades 5-10)

A group of nine students from Singapore is visiting your school for one month as part of an international exchange program (Don't worry; English is Singapore's national language!). The principal has asked your class to plan and budget a four-day tour of [a key state - assigned or chosen] to help the visitors understand the state's impact on the history and development of our nation. Plan your tour so that the visitors are shown sites that best capture the ways that [your state] has influenced our nation's development.

You should prepare a written tour itinerary, including an explanation of why each site was selected. Include a map tracing the route for the four-day tour and a budget for the trip.

Adapted from Wiggins & McTighe (2004) *Understanding by Design Professional Development Workbook*. ASCD

Mythic Job Search Performance Task (English, grades 7-10)

Your task is to select an epic hero from the literature we have read and write a letter to the hero in which you apply for a job as a crew member on his expeditions. In the letter, you must be specific about the position for which you are applying, your qualifications for the job, and why you feel you would be an asset to the crew. Be sure to make your letter persuasive by making it clear tha you understand the particular struggles and adventures the hero and crew have already undertaken, and how you might be of value to them in handling such situations and difficulties. Write in business-letter form and include a resume.

From Wiggins & McTighe (2004*) Understanding by Design Professional Development Workbook*. ASCD.

Tour Director Performance Task (World Languages, Level 1)

You serve on a Welcome Committee to provide tours for students new to ourschool/ communty. Plan a trip to three *places* (e.g., school, town, mall) in the new student's target language. Incorporate the following vocabulary: *directions* (left, right, near, far, next to), *places* (e.g., classromms, cafeteria, gym labirary, labs, churches, police and fire stations, schools, restaourants, stores) and *transportation* (e.g., bus, bike, stairs, escalators, taxi, train, car elevators).

Remember to incoude avariety of *locations*, *directions*, and forms of *transportation* on your trips. Keep sentences simple, and narrate in the target language.

From Wiggins & McTighe (2004*) Understanding by Design Professional Development Workbook*. ASCD.

Chemical Equilibrium Performance Task (Chemistry, grades 11-12)

You are a researcher hired by a group of expert mountain climbers. Hypoxia is the set of symptoms (headache, fatique, nausea) that comes from a lack of oxygen in body tissues. It is often felt by mountain climbers as the ascend altitude quickly. Sherpas, longtime residents of high altitudes, seem to feel no hypoxic discomfort. Why might that be? You group wants to know and to benefit from the knowledge.

Design a series of experiments that would test the difference in hypoxic symptoms between mountain clibers and Sherpas. Expalin, using chemical equilibrium, by high altitude causes hypoxia in the climbers. How can sherpas avoid these symptons? How can you test for these possibilities? What would a positive test look like? What inherent error would you have to be aware of?

From Wiggins & McTighe (2004*) Understanding by Design Professional Development Workbook*. ASCD.

Fitness Consultant Performance Task (Physical Education, high school)

Imagine that you are a fitness consultant for a local health club. Your task is to design a fitness program for a client (*Students are given client specifications – age, height, weight, fitness goals).* Use our fitness planning format to design a 16-week fitness program for strength, endurance, and flexibility.

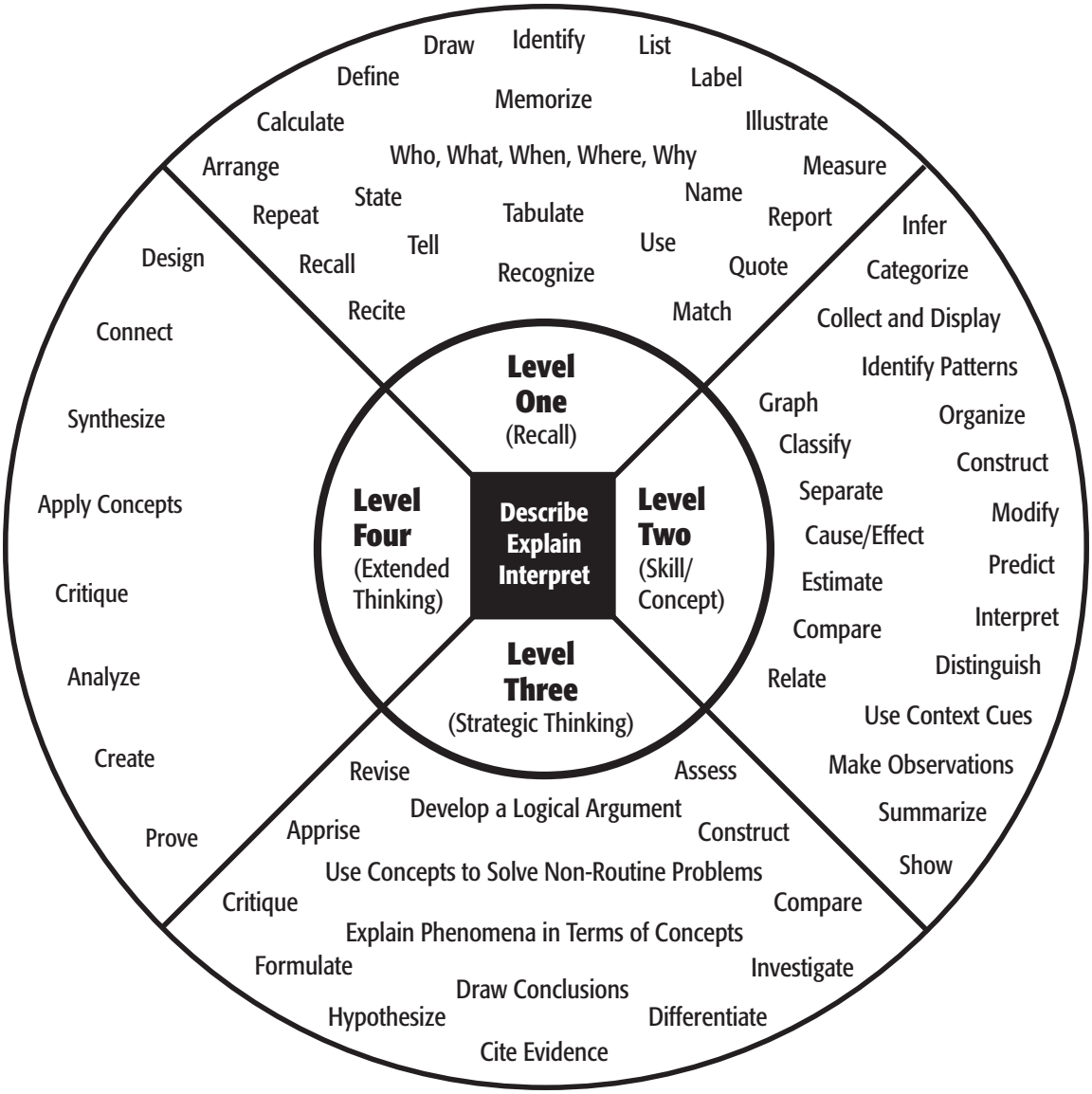
Explain how your selection of aerobic, anaerobic, and stretching exercises will help your client meet the goal. Be prepared to demonstrate the proper technique for all exercises and stretches that you recommend.

From Wiggins & McTighe (2004*) Understanding by Design Professional Development Workbook*. ASCD.

Bloom’s Taxonomy (New)

LEVEL	DEFINITION	SAMPLE VERBS		SAMPLE BEHAVIORS
Remembering	Student recalls or recognizes information, ideas, and principles in the approximate form in which they were learned.	Write List Label Name State Define Recall Repeat	Arrange Duplicate Memorize Order Recognize Relate Reproduce	The teacher will define the 6 levels of Bloom's taxonomy of the cognitive domain.
~~Understanding~~ (Comprehending)	Student translates, comprehends, or interprets information based on prior learning.	Translate Express Identify Indicate Explain Summarize Paraphrase Describe Illustrate	Classify Discuss Locate Recognize Report Restate Review Select	The teacher will explain the purpose of Bloom's taxonomy of the cognitive domain.
Applying	Student selects, transfers, and uses data and principles to complete a problem or task with a minimum of direction.	Schedule Sketch Use Compute Solve Demonstrate Apply Construct	Choose Demonstrate Employ Illustrate Interpret Operate Practice Write	The teacher will compose an instructional objective for each level of Bloom's taxonomy.
Analyzing	Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question.	Appraise Analyze Categorize Compare Contrast Separate Question Test	Criticize Discriminate Differentiate Calculate Distinguish Examine Experiment	The teacher will compare and contrast the cognitive and affective domains.
Evaluating	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	Judge Critique Justify Defend Estimate	Appraise Assess Compare Support Evaluate	The teacher will judge the effectiveness of writing objectives using Bloom's taxonomy.
Creating	Student originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.	Create Design Hypothesize Invent Develop Plan Prepare Propose Set up	Arrange Assemble Collect Compose Formulate Organize Construct Manage Articulate	The teacher will design a classification scheme for writing educational objectives that combines the cognitive, affective, and psychomotor domains.

Depth of Knowledge (DOK) Levels



Level One Activities	Level Two Activities	Level Three Activities	Level Four Activities
Recall elements and details of story structure, such as sequence of events, character, plot and setting.	Identify and summarize the major events in a narrative.	Support ideas with details and examples.	Conduct a project that requires specifying a problem, designing and conducting an experiment, analyzing its data, and reporting results/ solutions.
Conduct basic mathematical calculations.	Use context cues to identify the meaning of unfamiliar words.	Use voice appropriate to the purpose and audience.	Apply mathematical model to illuminate a problem or situation.
Label locations on a map.	Solve routine multiple-step problems.	Identify research questions and design investigations for a scientific problem.	Analyze and synthesize information from multiple sources.
Represent in words or diagrams a scientific concept or relationship.	Describe the cause/effect of a particular event.	Develop a scientific model for a complex situation.	Describe and illustrate how common themes are found across texts from different cultures.
Perform routine procedures like measuring length or using punctuation marks correctly.	Identify patterns in events or behavior.	Determine the author's purpose and describe how it affects the interpretation of a reading selection.	Design a mathematical model to inform and solve a practical or abstract situation.
Describe the features of a place or people.	Formulate a routine problem given data and conditions.	Apply a concept in other contexts.	
	Organize, represent and interpret data.		

Webb, Norman L. and others. "Web Alignment Tool" 24 July 2005. Wisconsin Center of Educational Research. University of Wisconsin-Madison. 2 Feb. 2006. <http://www.wcer.wisc.edu/WAT/index.aspx>.

Questioning Framework Examples from Across Grade and Content Areas

Questions Based on Bloom's Taxonomy (Revised, Anderson and Krathwohl, 2001)			
Question Type	**Nature of Question**		**Sample Questions or Prompts**
Remembering	Recalling or recognizing information. Questions ask students to *define, name, recall, repeat,* or *state*.	The majority of "Remembering" questions begin with the words, "Who?" "What?" "When?" or "Where?"	○ What is a "stanza" in poetry? ○ When did America gain its independence? ○ What are the properties of a triangle? ○ Who invented the lightbulb?
Understanding* *This is NOT UBD's transferable "understanding"	Comprehending or grasping prior learning. Questions ask students to *describe, discuss, explain, paraphrase,* or *summarize*.	○ Explain the process of _____. ○ Describe how to _____. ○ Summarize _____. ○ In your own words, tell _____.	○ Explain the conflict in the story you are reading. ○ Summarize the events that led up to the beginning of the Revolutionary War. ○ Describe the steps to follow when solving a long division problem. ○ How does an elephant stay cool?
Applying	Using information to solve a problem or complete a task. Questions ask students to *demonstrate, illustrate, interpret, solve,* or *use*.	○ Demonstrate the process of _____. ○ Illustrate how _____. ○ Determine how _____works. ○ Use _____ to solve this problem _____.	○ How would you correct this flawed sentence? ○ Illustrate how one check or balance works in the branches of the US government. ○ What are the errors in this solution to the problem? ○ How could the weaknesses in this experiment's designed be improved?
Analyzing	Breaking down material, examining organizational structure, finding patterns, or relating ideas. Questions ask students to *categorize, compare, contrast, discriminate,* or *distinguish*.	○ _____ is an example of _____ because _____. ○ What are the similarities and/or differences between _____ and _____? ○ How does _____ affect _____ ? ○ _____ is/is not an example of _____ because _____.	○ What internal conflict is the character in this story experiencing? How do you know? ○ How are the buildings of Ancient Rome and Greece similar? Different? ○ Is there another way that we could write the same equation to see if it would still work? ○ Is _____ an arctic animal? Why or Why not?
Evaluating	Appraising or critiquing based on specific standards or criteria. Questions ask students to *appraise, defend, judge, justify,* or *support*.	○ How effective is _____? Why? ○ Which is better/stronger/more defensible: _____ or ____? Why ○ Support the argument that ____. ○ Is _____ safe/helpful/ beneficial for _____? Explain. ○ Why might ____ agree/disagree with _____? Explain.	○ How effective is the writer's use of imagery (ability to use words to paint pictures in your head)? Explain. ○ Why might some people have disagreed with the Boston Tea Party and how would they defend their opinion? ○ How effective was [this former student] at solving this problem? ○ Will planting trees really help the environment? Why or why not?
Creating	Combining and integrating ideas and information into new schematics, products, plans, patterns, or structures. Questions ask students to *construct, design, develop, formulate,* or *propose*.	○ Design a new way to _____. ○ Develop a theory about _____. ○ Propose a plan to _____. ○ Imagine a situation in which _____. ○ Formulate a new _____ using _____.	○ Formulate a new story featuring the same characters facing a different conflict. ○ Propose a plan to help your classmates distinguish among the different regions. ○ What is another way to solve this problem and how might it help people? ○ Imagine a world in which everyone sorts their trash and recycling. Develop a plan that would make that happen in real life.

From Doubet, K.J. & Hockett, J.A. (In Press). *Differentiation in the Elementary Grades: Strategies to Engage and Equip All Learners*. Alexandria, VA: ASCD.

Questions Based on Webb's DOK (Webb, et al, 2005)			
Webb's Level	**Key Verbs**		**Sample Questions**
Level One: Recall *Who, What, When, Where, Why*	Arrange, Calculate, Define, Identify, List, Measure Recognize, Recall, Repeat, State, Use	The majority of "Recall" questions begin with the words, "Who?" "What?" "When?" or "Where?"	○ When and where did the story of *Sarah, Plain and Tall* take place? ○ Where were the majority of the battles in this war fought? ○ What is does it mean to say that two fractions are "equivalent?" ○ What kind of an animal is a dolphin?
Level Two: Skill/Concept *Beyond recall; requires processing*	Categorize, Estimate, Identify Patterns, If/Then, Organize, Predict, Separate, Summarize	○ If _____, then _____? ○ How would you organize _____ to show _____? ○ Illustrate how _____ works. ○ What do you think would happen if _____? Why? ○ Use ____ to solve this problem: _____. ○	○ If the Grinch is motivated by greed, what do you think he will do next? ○ To which branch of government does [this power] "belong"? Why do you say so? ○ What angle measures would we get if we decomposed this angle into 3 smaller angles with equal measures? ○ Using what you know about the traits of mammals, categorize these animals into "mammals" and "non-mammals."
Level Three: Strategic Thinking *Requires mental processing at a higher level*	Apprise, Assess, Compare, Critique, Formulate, Hypothesize, Investigate, Revise	○ How are ____ and _____ alike? How are they different? ○ Based on the data you've collected, what is your hypothesis about _____? ○ Use what you've learned about _____ to revise your thinking about _____. ○ How would you rate the _____ of ____? ○ Evaluate _____ based on the following criteria: _____.	○ How does Steve Jenkins use illustrations in *What do you do with a Tail Like This?* How does this compare to how he uses illustrations in *Never Smile at a Monkey?* ○ Use what you've learned about a city community to evaluate our classroom community. ○ Use estimation strategies to assess the reasonableness of your answer to this story problem (CCSS4.OA.A.3). ○ Based on the data you've collected, what is your hypothesis about the temperature next week?
Level Four: Extended Thinking *Requires planning and developing; therefore, extended time is necessary*	Apply Concepts to, Connect, Create, Critique (more factors), Design, Prove, Synthesize	○ Apply the concepts of ____ to creating a _____. ○ Plan and conduct an investigation to determine _____. ○ Critique this _____ in terms of _____, _____, and _____. ○ Design an original application of _____. ○ Use ____ to prove _____.	○ Create an original poem that reflects your favorite poem's theme. ○ Investigate the structures in our school to determine if they better represent Roman or Greek architecture. ○ Use what you know about area and volume to design a waterpark with 5 pools with the following dimensions: ○ Plan and conduct an investigation to provide evidence of what plants need to live.

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CHECKLIST FOR HIGH-QUALITY LEARNING GOALS

What It Is:

A tool to guide the articulation of learning goals for use in planning tasks, lessons, units, and assessments

How it Works:

Use the following checklist to guide the creation of learning goals and essential questions:

Understanding Goals

- ☐ Written as complete sentences and phrased, "Students will understand THAT…"
- ☐ Focused on a concept or big idea
- ☐ Invite inquiry/require "uncoverage" (versus coverage)
- ☐ Hold "Transfer" power to self, world, discipline, other disciplines
- ☐ Capable of being investigated on multiple levels and/or across lessons and units

Essential Questions

- ☐ Important to real people in the real world
- ☐ Raise additional questions
- ☐ Worthy of discussion
- ☐ Provocative/debatable
- ☐ Suggestive of more than one "answer"
- ☐ Related to/unpack the Understandings

Know(ledge)

- ☐ Information, facts, terms, definitions, formulas, algorithms, categories, processes, etc.
- ☐ Focused on *essentials* (versus on "trivia" or things that are "fun" to know)
- ☐ Aligned to standards
- ☐ Includes pre-requisite knowledge *if necessary*
- ☐ Related to what students will "Do" (i.e., the skills in which they'll engage)
- ☐ If used for common planning, or for planning assessments, should be written out in full (e.g., "'Dynamic characters' grow and change throughout a story" rather than simply "the definition of a 'dynamic character'")

Do (Skills)

- ☐ Focused on student *thinking* (what happens in students' heads rather than with their hands)
- ☐ Begins with a powerful verb (see Bloom's for suggestions)
- ☐ Includes higher order thinking
- ☐ Avoids describing specific activities
- ☐ Focused on one measureable skill per "Do"
- ☐ Encompasses standards but goes beyond
- ☐ Suggestive of what students will "do" to grapple with the Essential Questions and Understandings, and how they will apply the Knowledge

What It's Good For:

- Assessing the power and efficiency of learning goals and essential questions
- Ensuring the alignment of learning goals for differentiated tasks

Classroom Examples:

See attached for sets of learning goals that are aligned to these criteria.

From Doubet & Hockett (2015). Differentiation in Middle and High School: Strategies to Engage All Learners. ASCD.

PERFORMANCE TASK PLANNING TEMPLATE

Unit Title: _____

Unit Author(s): _____

Content Area(s): _____ **Grade Level:** _____

<table>
<tr><th colspan="3">Stage 1 – Desired Results</th></tr>
<tr><td rowspan="5">Established Goals

(SOLs)

National Standards (if applicable)</td><td colspan="2">Transfer</td></tr>
<tr><td colspan="2">Students will independently be able to use their learning to…</td></tr>
<tr><td colspan="2">Meaning</td></tr>
<tr><td>Understandings
Students will understand that…</td><td>Essential Questions
Students will keep considering…</td></tr>
<tr><td colspan="2">Acquisition</td></tr>
<tr><td>Students will KNOW… (vocab/facts)</td><td>Students will be SKILLED AT… (Bloom’s)</td></tr>
</table>

PERFORMANCE TASK PLANNING TEMPLATE

<table>
<tr><th colspan="2">Stage 2 – Evidence</th></tr>
<tr><th>Evaluative Criteria</th><th>Assessments</th></tr>
<tr><td rowspan="2">Criteria for Success

(Rubric Criteria/Categories):</td><td>Performance Task:

• Goal:

• Role:

• Audience:

• Situation:

• Product/Performance:</td></tr>
<tr><td>Other Evidence</td></tr>
</table>

Format Source: ***Understanding by Design 2.0*** **– Wiggins and McTighe (2010) – ASCD**

Constructing a Performance Task Scenario Using GRASPS

Consider the following set of stem statements as you construct a scenario for a performance task. Refer to the previous idea sheets to help you brainstorm possible scenarios. (Note: These are idea starters. Resist the urge to fill in all of the blanks.)

Goal:

- Your task is _____
- The goal is to _____
- The problem or challenge is _____
- The obstacles to overcome are _____

Role:

- You are _____
- You have been asked to _____
- Your job is _____

Audience:

- Your clients are _____
- The target audience is _____
- You need to convince _____

Situation:

- The context you find yourself in is _____
- The challenge involves dealing with _____

Product, Performance, and Purpose:

- You will create a _____

in order to _____

- You need to develop _____

so that _____

Standards and Criteria for Success:

- Your performance needs to _____
- Your work will be judged by _____
- Your product must meet the following standards: _____
- A successful result will _____

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1. The biggest strength of this Stage One is _____ because:	**2. Other strengths include:**
3. Some small changes that could make a big difference include:	**4. But the biggest change we'd suggest is _____ because:**