Using Bloom's Taxonomy to Plan Questions
Resource Bundle

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Level of Thinking	Instructional Situations	What Students Will Do	Question Stems
Create	When a teacher wants students to synthesize information or material to form a new idea, concept, or product.	Construct, design, develop, formulate, generate, hypothesize, invent, plan, produce, propose	• What would happen if…? • How would you test…? • Can you propose an alternative? • What would be a new way to…? • How might we prove or confirm…? • How would you plan to research…?
Evaluate	When a teacher wants students to develop or apply criteria in order to make a judgment or determination.	Assess, check, critique, defend, determine, judge, justify, rate	• Would it be better if…? Why? • What changes would you suggest for…? • How effective is…? Why? • How would you determine…? • What choice would you have made? Why? • Do you agree with…? Why or why not? • What evidence supports the view that…?
Analyze	When a teacher wants students to examine how the parts of a work relate to one another and to the whole. When a teacher wants students to infer what's not explicitly stated.	Categorize, classify, differentiate, organize, infer, provide evidence, sort, take apart	• What is the relationship between ___ and ___? • What might you infer? • What is the main idea or theme? • What evidence supports…? • What conclusions can you draw about…? • How would you categorize…

Level of Thinking	Instructional Situations	What Students Will Do	Types of Question Stems
Apply	When a teacher wants students to carry out a task or perform a procedure.	Carry out, execute, implement, solve, use	• How would you carry out…? • How would you solve…? • What would be an example of…? • How would you organize…? • What questions could be asked about…? • What approach or strategy would you use to…? • How would this concept apply to…?
Understand	When a teacher wants students to construct meaning, or build connections between new knowledge and prior knowledge.	Compare, classify, demonstrate, explain, interpret, show an example, summarize, translate	• How would you state that in your own words? • How would you summarize…? • How would you distinguish between…? • How is ___ similar to ___? • How would you explain…? • What is an example of…? • What problem are we trying to solve?
Remember	When a teacher wants students to retrieve relevant knowledge from long-term memory.	Identify, list, match, memorize, name, recall, recognize	• What is…? • Where is…? • When did ___ happen? • Who were…? • What is the definition of…? • How many…? • Can you name the…? • Is ___ true or false?

How to Task-Analyze an Objective
Supplement

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It's important to understand how to task-analyze an objective in order to identify the levels of thinking students must use in order to master it. Here are some suggested steps for task-analyzing an objective.

- Step 1: List the tasks students will need to complete in order to reach the objective.

- Step 2: Identify the levels of thinking associated with these tasks.

- Step 3: Determine the highest level of thinking required by the objective.

Example A: Secondary English

Task-Analysis of Objective	Explanation
Objective: Evaluate the argument and specific claims in a newspaper editorial. REMEMBER LEVEL • Recognize key characteristics of a newspaper editorial. UNDERSTAND LEVEL • Interpret the opinion of the editorial. ANALYZE LEVEL • Infer what's not explicitly stated to examine author's intent. EVALUATE LEVEL • Determine the credibility of editorial based on facts and evidence.	*Based on this objective, first students will need to recognize the key characteristics of a newspaper editorial (e.g. based on opinion, supports one side of an issue, supported by facts and evidence).* *Next, they will need to identify and interpret the opinion of the editorial. This is "understand" level thinking.* *They may also need to infer what's not explicitly stated in order to examine the author's intent, which is "analyze" level thinking.* *Finally, they will need to determine if the editorial is credible – that is, whether it is backed up with facts and evidence to substantiate the opinion. This is "evaluate" level thinking. The highest level of thinking required by this objective is "evaluate."*

Example B: Upper elementary science

Task-Analysis of Objective	Explanation
Objective: Compute the value of variables using the scientific formula for density. REMEMBER LEVEL • Recall the meaning of variable, scientific formula, density, mass and volume. UNDERSTAND LEVEL • Interpret the scientific formula for density (D = M/V). APPLY LEVEL (reaches objective) • Solve for density using the formula provided.	*Based on this objective, first students will need to recall the meaning of the terms "variables", "scientific formula", and "density". This is "remember" level thinking.* *Next, they will need to interpret what the variables mean in the scientific formula for density. This is "understand" level thinking.* *Finally, they will need to solve for density using the formula provided, which is "apply" level thinking. The highest level of thinking required by this objective is "apply."*

Example C: Lower elementary technology

Task-Analysis of Objective	Explanation
Objective: Determine key words and use them in an information search. REMEMBER LEVEL • Recall what key words are. UNDERSTAND LEVEL • Explain how key words help search for information. APPLY LEVEL • Carry out informational searches using key words.	*Based on this objective, first students will need to recall what key words are. This is "remember" level thinking.* *Next, they will need to explain how key words help search for information. This is "understand" level thinking.* *Finally, they will need to carry out information searches using key words, which is "apply" level thinking. The highest level of thinking required by this objective is "apply."*

Creating Questions – Content Area Examples
Supplement

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Refer to each content-area example to see how a sequence of questions can be developed to target different levels of thinking.

Each example has the following information:
- Sample national standard.
- An objective that corresponds to it.
- A set of questions that scaffold toward – and extend beyond – the level of thinking required by the objective.
- The level of thinking required by the objective is in blue.

The content-area, grade-level specific examples are hyperlinked for your convenience.

ART – Elementary *(Back)*

Standard: *Visual Arts: Cr1.1.5a* Combine ideas to generate an innovative idea for art-making.

Objective: I can create a hybrid animal using a variety of art mediums.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
Which two animals will you choose for your hybrid animal?	How do the two animals compare?	What strategy will you use to combine the two animals?	What colors will make your hybrid more or less realistic?	How will you determine what materials you need to make the hybrid?	How will you create the hybrid animal?

ENGLISH – Secondary *(Back)*

Standard: *CCSS, Grades 9-10:* Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

Objective: I can form an argument for or against the use of curfews using valid reasoning and sufficient evidence.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is a curfew?	How do curfew policies in big cities compare to those in rural neighborhoods?	Use brainstorming strategies to outline an argument for or against curfews.	What can we infer from differences in curfew policies?	How would you argue for or against curfews?	What is a proposed alternative to the current curfew policy in your community?

LANGUAGE ARTS – Elementary *(Back)*

Standard: *CCSS for ELA, Grade 3*: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details and clear event sequences.

Objective: I can compose an original narrative that demonstrates all the necessary elements of a narrative.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is a narrative?	What are some examples of narratives you've read?	Why do authors write narratives?	What is the relationship between the plot and the setting of a story?	How do you determine the quality of a narrative?	How will you write an original story that demonstrates all elements of a good narrative?

MATH – Elementary *(Back)*

Standard: *NCTM-Measurement:* Explore what happens to measurements of a two-dimensional shape such as its perimeter and area when the shape is changed in some way.

Objective: I can prove how changes to a shape affect its perimeter and area.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is perimeter? What is area?	What are the perimeters and areas of these two shapes?	How do the perimeters and areas of these two shapes compare?	If you increase the width of a rectangle by 2 units, what happens to the area and perimeter?	Which floor plan provides a larger seating capacity? Why?	How would you design a floor plan that meets the needs of your client?

MATH – Secondary *(Back)*

Standard: *NCTM- Algebra:* Interpret representations of functions of two variables.

Objective: I can explain the functions of variables in mathematical equations.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is a variable?	What is the function of a variable? Give an example.	How would you solve for one of the variables?	What does each variable represent? Give evidence.	How would you determine the value of these two variables?	What if one variable was negative? How would that change the function of the other variable?

MUSIC – Elementary *(Back)*

Standard: *MU: Cr3.2.E.8a.* Share personally-developed melodies and rhythmic passages – individually or as an ensemble – that demonstrate understanding of characteristics of music or texts studied in rehearsal.

Objective: I can compose a melody that demonstrates my understanding of music.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is melody? What is rhythm?	How can you determine how many beats are in a measure?	How do you play a staccato note?	How can you differentiate a melody from a harmony?	What criteria determines the merit of a composition?	How will you compose a new melody?

P.E. – Secondary *(Back)*

Standard: *S5.H2.L2.* Chooses an appropriate level of challenge to experience success and desire to participate in a self-selected physical activity.

Objective: I can develop criteria to determine my success with an appropriate physical activity that is challenging and desirable.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What are some physical activities you like to do?	What are the benefits of these physical activities?	How do you perform these physical activities?	What are the criteria for choosing an appropriate physical activity level – one that is both challenging and desirable?	How will you determine if you experienced success with your self-selected physical activity?	How would you plan three months of desirable and challenging physical activity?

SCIENCE – Elementary *(Back)*

Standard: *NGSS 3-ESS3-1* Make a claim about the merit of a design solution that reduces the impact of a weather-related hazard.

Objective: I can measure the effectiveness of flood prevention methods.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is a weather-related hazard?	What are some examples of weather-related hazards?	How could you prevent a flood?	What evidence supports the effectiveness of different flood prevention methods?	Which flood prevention method is more effective?	How would you design a campaign to prevent flooding?

SCIENCE – Secondary *(Back)*

Standard: *NGSS HS-ESS3-3.* Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.

Objective: I can create a proposal for a new waste disposal plan to present to the local city council.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What is waste?	What are some examples of waste disposal?	How can we improve our waste disposal practices?	Which area of waste disposal needs the most improvement?	What criteria will you use to determine the effectiveness of a new waste disposal solution?	How would you propose a new waste disposal plan to the local city council?

SOCIAL STUDIES – Secondary *(Back)*

Standard: *D2.Geo.6.9-12.* Evaluate the impact of human settlement activities on the environmental and cultural characteristics of specific places and regions.

Objective: I can assess the positive and negative impacts of commercial properties on national parks.

REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
What are some commercial properties in your neighborhood?	How do companies decide where to locate commercial properties?	What approach could a city use to decide how to allocate land for commercial properties?	Why do developers locate commercial properties near tourist attractions?	How would you determine the positive/negative impact of commercial properties on national parks?	Produce an advertisement to support or reject commercial properties in national parks.

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