

Developing Meta-cognition with the New Bloom's Taxonomy

There are six categories in the new Bloom's Taxonomy. Each is headed with a verb rather than a noun. The verb heading gives a direction about what to do to meet the thinking objective for each domain. For example, you can teach the students how to use Bloom's Taxonomy by deconstructing a well-known story such as *The Three Little Pigs* or a story from the student's anthology.

Remember

- Ask the students what they remember about the story.
- Write down all comments on a poster-size chart paper.
- Challenge any comments that are inconsistent or not appropriate.
 - Ask, "Do you all agree?"
 - Allow students to check the facts if there is a need or disagreement.
- Continue until the story is retold with beginning —middle—end facts accurately recounted.
- CHECK with the students about accuracy and continuity.
- Make sure that there is agreement about the story.

REMEMBER

The ability to restate, recall, and recognize previously learned material. You think about what was important and write it down.

Tell	Name	Locate	Describe	Identify
Explain	Retell	Define	List	Memorize
Label	Find	Match		

Who, what, why, where, when?
Name all the characters in the story.
How would you describe...?
Can you list three ___?
Write six facts from the story.
When/where does the story take place?
How does the story end?

Understand

- Debrief with the students.
- Ask what the main idea of the story was.
- Request evidence to support your idea.
- Identify different perspectives.
- Try to look at why there might be different ways of looking at the story.
- Generate consensus or agreements about central themes.

UNDERSTAND

The ability to make sense of material. To grasp the meaning of information you have learned. You do this by looking at what you learned from a variety of perspectives.

Interpret	Exemplify	Summarize	Classify
Infer	Paraphrase	Compare	Explain
Outline	Discuss	Illustrate	Restate
Demonstrate	Describe	Compare	Contrast

Will you restate in your own words?
What facts or ideas show...?
Can you explain what is meant...?
How would you rephrase the meaning...?
What is the main idea of...?
Can you explain what is happening...?
How would you summarize...?
Which is the best answer...?

Apply

- Ask how the story applies to today's circumstances.
- Inquire about the different characters and who they might be as people in the news.
- Make the story parallel with current or historical events.
- Talk about the story as a metaphor for someone's life. Describe the life.

APPLY

The ability to use learned material in new situations. You use varied concepts, methods, and theories to do this.

Implement	Carry out	Use	Construct
Execute	Translate	Demonstrate	Adapt
Solve	Organize	Practice	Build
Calculate	Tabulate	Change	

Using what you learned, how would you solve...?
How would you show your understanding of...?
What questions would you ask in an interview with...?
How would you use...?
What examples can you find to...?
How would you organize ___ to show...?
What elements would you choose to change...?

Developing Meta-cognition with the New Bloom's Taxonomy

Analyze

- Request that the students compare and contrast the motivation of each character.
- Check your own feelings when you remembered the story.
- Ask a partner about their favorite character and determine why.
- Reflect on the author's purpose for writing the story, is it still valid?

ANALYZE

The ability to break material into many components so that its structures may be understood. You identify parts, examine the relationships of the parts to each other and to the whole, and recognize the organizational principles involved.

Compare	Contrast	Organize	Outline	Infer
Deconstruct	Structure	Conclude	Argue	Debate
Question	Detect	Distinguish	Defend	Investigate
Examine	Categorize			

What are the parts or features of...?
 What is the motive...?
 What inference can you make?
 What conclusions can you draw?
 How would you classify?
 How would you categorize?
 What evidence can you find?

Evaluate

- Solicit opinions. Do you have a VOICE that needs to be heard regarding the story?
- Allow judgments. This is the opportunity phase of Bloom's Taxonomy; students have an opportunity to judge the story as long as they provide EVIDENCE to support their judgment.
- Support future forecasts. Ask students to talk about the author's future, the story's viability, and whether or not the people will know the story in fifty years?

EVALUATE

The ability to judge the value of the material based on specific criteria and standards. You conduct assessments from a variety of perspectives.

Check	Hypothesize	Critique	Test
Experiment	Judge	Detect	Monitor
Assess	Appraise	Justify	Dispute
Evaluate	Decide	Select	Question
Opinion	Agree/disagree	Prove/disprove	Prioritize

Do you agree with the actions...?
 How would you prove/disprove...?
 How would you prioritize the facts...?
 What is your opinion of...?
 What would you cite to defend the actions...?
 What choice would you have made...?
 How would you evaluate...?

Create

- A new product needs to be brought forth from the experience of using the thoughtful process of Bloom's Taxonomy. The students can brainstorm what those products might look like – CHOICE at this point is really important and reflects the best of the research about thinking or cognitive processing.
- Students can work with partners or small groups. However, make sure that they identify how they are thinking to accomplish the tasks being completed.

CREATE

The ability to put parts together to form a plan that is new. It may involve the production of a unique communication (essay/speech) or a plan of operations, (research proposal). You can reframe information into something entirely new.

Design	Construct	Invent	Make
Plan	Produce	Devise	Imagine
Compose	Create	Infer	Estimate
Formulate	Propose	Modify	Improve/change

What changes would you make to solve...?
 What would happen if...?
 Can you propose an alternative...?
 What could be combined to improve/change...?
 What way would you design...?
 How would you estimate the results for...?
 How would you change/modify the plot...? Why?

BLOOM'S TAXONOMY

1. REMEMBER

2. UNDERSTAND

3. APPLY

4. ANALYZE

5. EVALUATE

6. CREATE

REMEMBER

The ability to restate, recall, and recognize previously learned material. You think about what was important and write it down.

Tell	Name	Locate	Describe	Identify
Explain	Retell	Define	List	Memorize
Label	Find	Match		

Who, what, why, where, when?

Name all the characters in the story.

How would you describe...?

Can you list three _____?

Write six facts from the story.

When/where does the story take place?

How does the story end?

UNDERSTAND

The ability to make sense of material. To grasp the meaning of information you have learned. You do this by looking at what you learned from a variety of perspectives.

Interpret	Exemplify	Summarize	Classify
Infer	Paraphrase	Compare	Explain
Outline	Discuss	Illustrate	Restate
Demonstrate	Describe	Compare	Contrast

Will you restate in your own words?

What facts or ideas show...?

Can you explain what is meant...?

How would you rephrase the meaning...?

What is the main idea of...?

Can you explain what is happening...?

How would you summarize...?

Which is the best answer...?

APPLY

The ability to use learned material in new situations.
You use varied concepts, methods, and theories to do this.

Implement	Carry out	Use	Construct
Execute	Translate	Demonstrate	Adapt
Solve	Organize	Practice	Build
Calculate	Tabulate	Change	

Using what you learned, how would you solve...?
How would you show your understanding of...?
What questions would you ask in an interview with...?
How would you use...?
What examples can you find to...?
How would you organize ____ to show...?
What elements would you choose to change...?

ANALYZE

The ability to break material into many components so that its structures may be understood.
You identify parts, examine the relationships of the parts to each other and to the whole,
and recognize the organizational principles involved.

Compare	Contrast	Organize	Outline	Infer
Deconstruct	Structure	Conclude	Argue	Debate
Question	Detect	Distinguish	Defend	Investigate
Examine	Categorize			

What are the parts or features of...?
What is the motive...?
What inference can you make?
What conclusions can you draw?
How would you classify?
How would you categorize?
What evidence can you find?

EVALUATE

The ability to judge the value of the material based on specific criteria and standards.

You conduct assessments from a variety of perspectives.

Check	Hypothesize	Critique	Test
Experiment	Judge	Detect	Monitor
Assess	Appraise	Justify	Dispute
Evaluate	Decide	Select	Question
Opinion	Agree/disagree	Prove/disprove	Prioritize

Do you agree with the actions...?

How would you prove/disprove...?

How would you prioritize the facts...?

What is your opinion of...?

What would you cite to defend the actions...?

What choice would you have made...?

How would you evaluate...?

CREATE

The ability to put parts together to form a plan that is new. It may involve the production of a unique communication (essay/speech) or a plan of operations, (research proposal).

You can reframe information into something entirely new.

Design	Construct	Invent	Make
Plan	Produce	Devise	Imagine
Compose	Create	Infer	Estimate
Formulate	Propose	Modify	Improve/change

What changes would you make to solve...?

What would happen if...?

Can you propose an alternative...?

What could be combined to improve/change...?

What way would you design...?

How would you estimate the results for...?

How would you change/modify the plot...? Why?