



# HS - Business/Computer

## Curriculum Unit Overview

### Python Programming

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[Unit 1](#) -Introduction to Computers and Programming

[Curriculum Development Hub](#)

#### Unit 1-Introduction to Computers and Programming

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<b>Course Title:</b> Python Programming	<b>Course Author:</b> Dawne Skerbetz	<b>Grade Level(s):</b> 11 & 12	<b>Time/Duration:</b> One semester
<b>Course Summary:</b> (optional)			
<b>Unit Name:</b> Introduction to Computers and Programming	<b>Unit Number:</b> 1	<b>Created:</b>	<b>Revised:</b> TBD
<b>Standards Addressed:</b> <ul style="list-style-type: none"><li>15.4.8.I Compare and contrast programming languages; select the most appropriate one to complete a specific task.</li><li>15.4.8.J Create a complex computer program to solve a problem.</li><li>15.4.12.H Use programming languages to develop logical thinking and problem solving skills</li></ul>			

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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### Big Ideas:

The uses of computers are almost limitless in our everyday lives.

Computers can do such a wide variety of things because they can be programmed.

The Python language is a good choice for beginners because it is easy to learn and programs can be written quickly.

### Transfer

*Students will be able to independently use their learning to...*

1. Define hardware and hardware components
2. Define software and identify application and system software packages.
3. Explain how computers store data.
4. Identify popular programming languages.

### Meaning

#### UNDERSTANDINGS

*Students will understand that...*

1. A program is a set of instructions that a computer follows to perform a task.
2. Computers can only execute programs that are written in machine language.
3. Syntax rules must be followed when writing a program.
4. The Python programming language requires a free download of Python.
5. Python programs can be written in Script mode and in the IDLE Programming Environment.

#### ESSENTIAL QUESTIONS

1. Why is the CPU the most important component in a computer?
2. What type of software controls the internal operations of the computer's hardware?
3. What do error messages in a program's operation indicate?

**Stage 1: Essential Content, Concepts & Skills**  
*What do we want students to know and be able to do?*  
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**Acquisition**

**KNOWLEDGE**

**Students will know...**

1. How to identify operating system and application software
2. How to identify components of a computer system
3. How computers store data
4. How a computer program works
5. How compilers and interpreters work
6. The difference between Python's interactive mode and the IDLE programming environment

**SKILLS**

**Students will be skilled at (be able to do)...**

1. Identifying computer hardware components
2. Identifying computer software types
3. Opening the Python interactive mode and the IDLE programming environment

**Stage 2: Assessments/Evidence of Learning**  
*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*  
*How will you know that they did it?*  
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Evaluative Criteria	Assessment Evidence
<ol style="list-style-type: none"> <li>1. Use computer terminology properly</li> <li>2. Discuss computer concepts</li> </ol>	PERFORMANCE TASK(S)/Think GRASPS: <ol style="list-style-type: none"> <li>1. Review Questions (MC terminology &amp; concepts)</li> <li>2. Review Questions (TF concepts)</li> </ol>
<ol style="list-style-type: none"> <li>1. Use computer terminology properly</li> <li>2. Discuss computer concepts</li> </ol>	OTHER EVIDENCE: <ol style="list-style-type: none"> <li>1. Review Questions (Short answer concepts)</li> <li>2. Exercises (use of Python interactive mode and application of concepts learned)</li> </ol>

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

Extra instruction, one-on-one remediation, extra time, simplified questions and MC choices

*This section provides a summary of the Key Learning Events and Instruction*

*Teachers may summarize the topics within lessons or may utilize [Laurel UbD Lesson Plan Template](#)*

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#### *Summary of Key Learning Events and Instruction*

1. Computer terminology and concepts
2. Discussion of computer facts
3. Completion of review discussion/questions/exercises

## Unit 2 [Type Name Here]

[Jump to Table of Contents](#)

Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
Course Summary: (optional) [Type Here]			
Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
Standards Addressed: <ul style="list-style-type: none"><li>[Type Here]</li></ul>			

### Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

[Jump to Table of Contents](#)

Big Ideas:  
[Type Here]

#### *Transfer*

*Students will be able to independently use their learning to...*

5. [Type Here]
6. [Type Here]

#### *Meaning*

## UNDERSTANDINGS

*Students will understand that...*

6. [Type Here]
7. [Type Here]
8. [Type Here]

## ESSENTIAL QUESTIONS

4. [Type Here]
5. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

[Jump to Table of Contents](#)

### Acquisition

## KNOWLEDGE

**Students will know...**

7. [Type Here]
8. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

4. [Type Here]

5. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

[Jump to Table of Contents](#)

Evaluative Criteria	Assessment Evidence
3. [Type Here] 4. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 3. [Type Here] 4. [Type Here]
3. [Type Here] 4. [Type Here]	OTHER EVIDENCE: 3. [Type Here] 4. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

*This section provides a summary of the Key Learning Events and Instruction*

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*Summary of Key Learning Events and Instruction*

- 4. [Type Here]
- 5. [Type Here]
- 6. [Type Here]

### Unit 3 [Type Name Here]

[Jump to Table of Contents](#)

Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
Course Summary: (optional) [Type Here]			
Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
Standards Addressed: <ul style="list-style-type: none"><li>[Type Here]</li></ul>			

- [Type Here]

### Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:

[Type Here]

*Transfer*

*Students will be able to independently use their learning to...*

7. [Type Here]

8. [Type Here]

*Meaning*



## UNDERSTANDINGS

*Students will understand that...*

9. [Type Here]
10. [Type Here]
11. [Type Here]

## ESSENTIAL QUESTIONS

6. [Type Here]
7. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

9. [Type Here]
10. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

6. [Type Here]

7. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
5. [Type Here] 6. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 5. [Type Here] 6. [Type Here]
5. [Type Here] 6. [Type Here]	OTHER EVIDENCE: 5. [Type Here] 6. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

*This section provides a summary of the Key Learning Events and Instruction*

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*Summary of Key Learning Events and Instruction*

- 7. [Type Here]
- 8. [Type Here]
- 9. [Type Here]

## Unit 4 [Type Name Here]

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Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
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Course Summary: (optional) [Type Here]	
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Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
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Standards Addressed:

- [Type Here]

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:  
[Type Here]

### *Transfer*

*Students will be able to independently use their learning to...*

9. [Type Here]

10. [Type Here]

### *Meaning*

## UNDERSTANDINGS

*Students will understand that...*

12. [Type Here]

13. [Type Here]

14. [Type Here]

## ESSENTIAL QUESTIONS

8. [Type Here]

9. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

11. [Type Here]

12. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

8. [Type Here]

9. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
7. [Type Here] 8. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 7. [Type Here] 8. [Type Here]
7. [Type Here] 8. [Type Here]	OTHER EVIDENCE: 7. [Type Here] 8. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

10. [Type Here]

11. [Type Here]

12. [Type Here]

## Unit 5 [Type Name Here]

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Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
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Course Summary: (optional) [Type Here]	
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Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
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Standards Addressed:

- [Type Here]

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:  
[Type Here]

### Transfer

*Students will be able to independently use their learning to...*

11. [Type Here]

12. [Type Here]

### Meaning

## UNDERSTANDINGS

*Students will understand that...*

15. [Type Here]

16. [Type Here]

17. [Type Here]

## ESSENTIAL QUESTIONS

10. [Type Here]

11. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

13. [Type Here]

14. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

10. [Type Here]

11. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
9. [Type Here] 10. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 9. [Type Here] 10. [Type Here]
9. [Type Here] 10. [Type Here]	OTHER EVIDENCE: 9. [Type Here] 10. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

13. [Type Here]

14. [Type Here]

15. [Type Here]



## Unit 6 [Type Name Here]

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Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
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Course Summary: (optional) [Type Here]	
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Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
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Standards Addressed:

- [Type Here]

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:  
[Type Here]

### *Transfer*

*Students will be able to independently use their learning to...*

13. [Type Here]

14. [Type Here]

### *Meaning*

## UNDERSTANDINGS

*Students will understand that...*

18. [Type Here]

19. [Type Here]

20. [Type Here]

## ESSENTIAL QUESTIONS

12. [Type Here]

13. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

15. [Type Here]

16. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

12. [Type Here]

13. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
11. [Type Here] 12. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 11. [Type Here] 12. [Type Here]
11. [Type Here] 12. [Type Here]	OTHER EVIDENCE: 11. [Type Here] 12. [Type Here]

### Stage 3: Learning Plan

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*Summary of Key Learning Events and Instruction*

16. [Type Here]  
17. [Type Here]  
18. [Type Here]

## Unit 7 [Type Name Here]

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Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
Course Summary: (optional) [Type Here]			
Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
Standards Addressed: <ul style="list-style-type: none"><li>[Type Here]</li></ul>			

### Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:  
[Type Here]

#### *Transfer*

*Students will be able to independently use their learning to...*

- 15. [Type Here]
- 16. [Type Here]

#### *Meaning*

## UNDERSTANDINGS

*Students will understand that...*

21. [Type Here]

22. [Type Here]

23. [Type Here]

## ESSENTIAL QUESTIONS

14. [Type Here]

15. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

17. [Type Here]

18. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

14. [Type Here]

15. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
13. [Type Here] 14. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 13. [Type Here] 14. [Type Here]
13. [Type Here] 14. [Type Here]	OTHER EVIDENCE: 13. [Type Here] 14. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

19. [Type Here]  
20. [Type Here]  
21. [Type Here]

## Unit 8 [Type Name Here]

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Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
Course Summary: (optional) [Type Here]			
Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
Standards Addressed: <ul style="list-style-type: none"><li>[Type Here]</li></ul>			

- [Type Here]

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:

[Type Here]

*Transfer*

*Students will be able to independently use their learning to...*

17. [Type Here]

18. [Type Here]

*Meaning*

## UNDERSTANDINGS

*Students will understand that...*

24. [Type Here]

25. [Type Here]

26. [Type Here]

## ESSENTIAL QUESTIONS

16. [Type Here]

17. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

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### Acquisition

## KNOWLEDGE

**Students will know...**

19. [Type Here]

20. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

16. [Type Here]



17. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
15. [Type Here] 16. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 15. [Type Here] 16. [Type Here]
15. [Type Here] 16. [Type Here]	OTHER EVIDENCE: 15. [Type Here] 16. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

22. [Type Here]  
23. [Type Here]  
24. [Type Here]

## Unit 9 [Type Name Here]

[Jump to Table of Contents](#)

Course Title: [Type Here]	Course Author: [Type Here]	Grade Level(s): [Type Here]	Time/Duration: [Type Here]
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Course Summary: (optional) [Type Here]	
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Unit Name: [Type Here]	Unit Number: [Type Here]	Created: [Type Here]	Revised: TBD
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Standards Addressed:

- [Type Here]

## Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

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Big Ideas:  
[Type Here]

### Transfer

*Students will be able to independently use their learning to...*

19. [Type Here]

20. [Type Here]

### Meaning

## UNDERSTANDINGS

*Students will understand that...*

27. [Type Here]

28. [Type Here]

29. [Type Here]

## ESSENTIAL QUESTIONS

18. [Type Here]

19. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

[Jump to Table of Contents](#)

### Acquisition

## KNOWLEDGE

**Students will know...**

21. [Type Here]

22. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

18. [Type Here]

19. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

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Evaluative Criteria	Assessment Evidence
17. [Type Here] 18. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 17. [Type Here] 18. [Type Here]
17. [Type Here] 18. [Type Here]	OTHER EVIDENCE: 17. [Type Here] 18. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

25. [Type Here]  
26. [Type Here]  
27. [Type Here]

## Unit 10 [Type Name Here]

[Jump to Table of Contents](#)

Course Title: [Type Here]

Course Author: [Type Here]

Grade Level(s): [Type Here]

Time/Duration: [Type Here]

Course Summary: (optional) [Type Here]

Unit Name: [Type Here]

Unit Number: [Type Here]

Created: [Type Here]

Revised: TBD

Standards Addressed:

- [Type Here]

### Stage 1 Desired Results: Enduring Understandings & Essential Questions

*What are the overarching takeaways and big ideas for students?*

[Jump to Table of Contents](#)

Big Ideas:  
[Type Here]

#### *Transfer*

*Students will be able to independently use their learning to...*

21. [Type Here]

22. [Type Here]

#### *Meaning*

## UNDERSTANDINGS

*Students will understand that...*

30. [Type Here]

31. [Type Here]

32. [Type Here]

## ESSENTIAL QUESTIONS

20. [Type Here]

21. [Type Here]

## Stage 1: Essential Content, Concepts & Skills

*What do we want students to know and be able to do?*

[Jump to Table of Contents](#)

### Acquisition

## KNOWLEDGE

**Students will know...**

23. [Type Here]

24. [Type Here]

## SKILLS

**Students will be skilled at (be able to do)...**

20. [Type Here]

21. [Type Here]

### Stage 2: Assessments/Evidence of Learning

*What are the formative (informal) and summative (formal) assessments used to measure learning and growth?*

*How will you know that they did it?*

[Jump to Table of Contents](#)

Evaluative Criteria	Assessment Evidence
19. [Type Here] 20. [Type Here]	PERFORMANCE TASK(S)/Think GRASPS: 19. [Type Here] 20. [Type Here]
19. [Type Here] 20. [Type Here]	OTHER EVIDENCE: 19. [Type Here] 20. [Type Here]

### Stage 3: Learning Plan

*What are the differentiated instructional strategies, activities, lesson plans that support the enduring understandings and essential questions for all students?*

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*Summary of Key Learning Events and Instruction*

28. [Type Here]  
29. [Type Here]  
30. [Type Here]