2024-2025 G & T Grade 3_Science

Content Area: **Gifted and Talented**
Course(s):
Time Period: **Full Year**
Length: **10 Weeks**
Status: **Published**

Science - Coral Reefs

Unit Rationale

Coral reefs are some of the most diverse and valuable ecosystems on Earth. Home to over 4,000 species of fish, corals, and other marine life, coral reefs cover only 1% of the world's oceans, but provide habitat for at least 25% of the world's marine life, with many reef species still to be discovered. Coral reefs are in danger due to climate change, pollution, and other human activity.

Learning about coral reefs can help students understand the importance of these ecosystems and how to protect them.

21st Century Life and Career

CRP.K-12.CRP1.1	Career-ready individuals understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP11	Use technology to enhance productivity.

Essential Questions

1) What is a coral reef?
2) Why are coral reefs important for people?
3) Where are they located in the world?
4) What are the threats to coral reefs and how can we protect them?

Pre-Assessments

- Teacher Recommendation
- Earn an E in science on their 1st and 2nd trimester report card.

Instructional Plan

1 - What are Coral Reefs?

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to identify the threats to **coral reefs**.

4) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain what a **coral reef is**.

I can list some of the threats to coral reefs.

Instructional Strategies and Activities

1) Introduce rules and expectations for *Gifted and Talented* class.

2) Teach students how to play Breakout EDU.

3) Watch the BrainPop video, *"Coral Reef"* (Linked here).

4) Take the Quiz about the BrainPop video (Linked here).

5) Other video choices for learning about coral reefs. These are YouTube videos...

(National Geographic: Coral Reefs 101)

Magic School Bus - Coral Reefs

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) The quiz for the BrainPop video about coral reefs.

3) Class discussion questions and answers), about the coral reef videos.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Videos to teach about coral reefs...

BrainPop video, *"Coral Reef"* (Linked here)

(National Geographic: Coral Reefs 101)

Magic School Bus - Coral Reefs

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day." The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

2 - Safe Internet Searches

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to use Google Safe Search for Kids.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can use Google Safe Search for Kids to explore a topic.

Instructional Strategies and Activities

1) Review rules and expectations for *Gifted and Talented* class **as needed**.

2) Warm-Up Breakout EDU puzzle of the day or Science-themed puzzle.

3) Show the YouTube video, *Search Tips for Kids* (Linked here)

4) Show the YouTube video, *Safe Google Search for Kids* (Linked here)

5) Use BrainPop to teach about safe searcher (Linked here) If this link doesn't work, just log onto BrainPop (not BrainPop, Jr), and do a search for *Internet Search.*

If you use BrainPop, use the challenge activity to check for understanding.

6) Introduce coral reef activity book assigned through Google Classroom. Here is a pdf of the handout. (Linked here)

Students will use safe search techniques to find examples of specific types of coral and color them accurately in their coral reef activity book.

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Class discussion questions and answers, about how to use safe search techniques while looking for information about the location of biomes.

3) Students will complete a map of biome locations. We will review the answers, and the maps will be sent home.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

BrainPop (Linked here)

Coral Reef Activity book (Linked here).

Gifted & Talented Drive(Linked here)

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day." The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

3 - Symbiosis and Create an Edible Polyp

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to identify the threats to **coral reefs**.

4) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain symbiosis in relation to a coral reef habitat.

I can build a model of a coral polyp.

Instructional Strategies and Activities

1) 1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Warm-Up Breakout EDU puzzle of the day or Science-themed puzzle.

3) Watch the YouTube video, Magic School Bus - Coral Reefs.

4) Show the Google Slides presentation about symbiosis (Linked here).

5) Other video choices for learning about coral reefs. These are YouTube videos...

(National Geographic: Coral Reefs 101)

6) Build and edible model of a coral polyp. (Linked here).

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Class discussion (questions and answers),about Magic School Bus video.

3) Class discussion (questions and answers), about Google Slides presentation on symbiosis.

4) Correct model of polyp.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Videos to teach about coral reefs...

Magic School Bus - Coral Reefs

(National Geographic: Coral Reefs 101)

Google Slides Presentation About Symbiosis

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day."

The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

4 - Why Do We Need Coral Reefs?

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain why coral reefs are beneficial.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students learn about the importance of coral reefs through the activity linked here.

4) Students create a paper book about why we need coral reefs. Paper booklinked here

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Class discussion (questions and answers),about Magic School Bus video.

3) Check Google Form about the importance of coral reefs activity.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Website with Importance of coral reef activity (Linked here).

Videos to teach about coral reefs...

Magic School Bus - Coral Reefs

(National Geographic: Coral Reefs 101)

Google Slides Presentation About Symbiosis

For paper book activity:

- website
- large construction paper
- scissors
- glue
- cloze passages
- chromebooks

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

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5 - Grow a Coral Reef Activity - Part I

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain how coral reefs recover when they are damaged by human activities or pollution.

I can grow an artificial coral.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students learn about how to restore coral reefs. Video linked here.

4) Restoring Florida's Dying Coral Reefs

5) Growing Coral experiment(Linked here).

6) Video - Inside the World's First Coral Nursery (Linked here).

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Class discussion (questions and answers),about Magic School Bus video.

3) Check Google Form about the importance of coral reefs activity.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Video: Giving Dead Reefs New Life With Fast-Growing Coral

Video: Restoring Florida's Dying Coral Reefs

Video: Inside the World's First Coral Nursery (Linked here).

Growing Coral experiment(Linked here).

- charcoal
- salt
- bluing
- food color

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

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6 -Coral Reef Activity - Part II and Coral Reef Jenga

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria ...

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain how coral reefs recover when they are damaged by human activities or pollution.

I can grow an artificial coral.

I can play a game to help me reinforce concepts about coral reefs.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students observe their *Growing Coral* experiment and discuss and record their observations.

3) Students learn about how to restore coral reefs. Video linked here.

4) Students learn how to play Coral Reef Jenga, a game to help reinforce knowledge about coral reefs.

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Students will record observations about their coral growing experiment.

3) Student will be able to correctly answer questions about coral reefs in the coral reef Jenga game.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Coral Reef Jenga Game

Growing Coral experiment observation sheet

Other Coral-Reef Related Activities

Bubble Reef (need bubbles)

Egg Carton Coral

Readers Theater - The Great Coral Reef race

Coral Reef Activity Book

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

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It also takes some time for them to pack up at the end of class and return to their classroom.

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7 - Brainstorm Final Project and Digital Breakout

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can explain how coral reefs recover when they are damaged by human activities or pollution.

I can plan an informational display.

I can use problem-solving and stretch my thinking to solve puzzles.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students observe their *Growing Coral* experiment and discuss and record their observations.

4) Students brainstorm for their final project - they will make a display using paperfish, clay, and egg carton coral

Begin sketching out reef design - research corals and fish

Think about group poster

4) Students play *Save the Coral Reef - A Digital Breakout* (Linked here).

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Students will record observations about their coral growing experiment.

3) Student will be able to successfully complete a coral-reef themed digital breakout .

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Gifted & Talented Drive (Linked here)

Growing Coral experiment observation sheet

Save the Coral Reef Breakout (Linked here)

Other Coral-Reef Related Activities

Bubble Reef (need bubbles)

Egg Carton Coral

Readers Theater - The Great Coral Reef race

Coral Reef Activity Book

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day." The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

8 - Final Project - Part I

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can create an informational display.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students observe their *Growing Coral* experiment and discuss and record their observations.

4) Take corals home.

5) Students will work on their final project and group informational poster. Here is an example (Linked here).

(Here is a screenshot of the example)

Use recycled materials, paper fish, straw corals, clay corals and egg carton coral to create a coral reef as a group.

6) Create a poster with 3 columns:

Why are Coral Reefs Important?

What Threatens Coral Reefs?

How Can We Protect Coral Reefs?

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Students will record observations about their coral growing experiment.

3) Student will be able to create a coral reef with their classmates.

4) Students will use safe research techniques to look up the facts they need for their poster.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Safe Google Search Engine(Linked here)

Gifted & Talented Drive (Linked here)

Growing Coral experiment observation sheet

FInal Project (Linked here).

(Here is a screenshot of the example of the final project)

Other Coral-Reef Related Activities

Bubble Reef (need bubbles)

Egg Carton Coral

Readers Theater - The Great Coral Reef race

Coral Reef Activity Book

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day." The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

9 - Final Project - Part II

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can create an informational display.

Instructional Strategies and Activities

1) Review the rules and expectations for *Gifted and Talented* class **as needed**.

2) Students how to play *Breakout EDU*, the *Lock of the Day*.

3) Students will complete their final project and group informational poster. Here is an example (Linked here).

(Here is a screenshot of the example)

Use recycled materials, paper fish, straw corals, clay corals and egg carton coral to create a coral reef as a group.

4) Create a poster with 3 columns:

Why are Coral Reefs Important?

What Threatens Coral Reefs?

How Can We Protect Coral Reefs?

5) Students will practice presenting their group project.

Formative Assessments

For Warm-up Activities including Breakout EDU:

1) Students solve a variable number of spelling, language arts and logic puzzles. Each correct solution unlocks a lock. When students have unlocked all of the locks they get a message congratulating them on a successful

breakout.

For the main part of the lesson:

1) Class discussion. Students will reflect on how each of the class expectations will help them be successful in *Gifted & Talented* class.

2) Student will be able to answer questions about their project.

Instructional Materials and Resources

Gifted & Talented Website (Linked here)

"Rules & Expectations" Slide to present and displayed in Google Classroom (Linked here)

Breakout EDU (linked here)

Safe Google Search Engine(Linked here)

Gifted & Talented Drive (Linked here)

Growing Coral experiment observation sheet

FInal Project (Linked here).

(Here is a screenshot of the example of the final project)

Other Coral-Reef Related Activities

Bubble Reef (need bubbles)

Egg Carton Coral

Readers Theater - The Great Coral Reef race

Coral Reef Activity Book

Other Helpful Links

https://coral.org/wp-content/uploads/2022/10/Coral-Reefs-For-Kids-V4.pdf

Exploring the Coral Reef: Learn About Oceans for Kids - FreeSchool

Reflections and Suggested Modifications

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10 - Present Project to Grade-Level Classmates

Student Learning Intentions or We are learning to … (WALT)

1) WALT stretch our thinking to help us solve complex problems creatively.

2) WALT to define and understand what a **coral reef** is.

3) WALT to understand how coral reefs are beneficial.

4) WALT to identify the threats to **coral reefs**.

5) WALT to identify strategies to help the **coral reefs**.

Student Success Criteria …

For Warm-up Activities including Breakout EDU:

I can stretch my thinking to help me problem-solve.

I can understand the rules and expectations for Gifted & Talented class

For Main Part of Lesson

I can create an informational display.

Instructional Strategies and Activities

1) Students will set up their display in a place where their classmates can view it.

2) Students will present their group project and poster to their grade-level classmates.

3) Students will answer questions about their project.

Formative Assessments

1) Group display will be assessed with a rubric.

2) Group poster will be assessed with a rubric.

2) Students will be able to answer questions from their grade-level peers about their project.

Instructional Materials and Resources

Group Display

Group Poster

Reflections and Suggested Modifications

There is really only about 50 minutes per class. It takes time to pick up the students from their classrooms. They always need some time to organize what they are bringing with them to G&T class.

It also takes some time for them to pack up at the end of class and return to their classroom.

Breakout EDU has s different puzzle every day, as well as longer breakout challenges. Students will work on the "Lock of the Day." The complexity differs for each challenge, therefore the time it takes the students to "break out" differs for each challenge.

Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media Literacy

Integration of Diversity, Equity and Inclusion

Autism and Climate Change

Climate Change

Coral Reefs and Climate Change | Healthy Oceans

Coral Reefs and Climate Change | WWF

Informational and Media Literacy

Student uses skills, social media to spread coral reef awareness

New Jersey Student Learning Standards: Content Area

GIFT.PK-12.1	Learning and Development
GIFT.PK-12.1.1	Self-Understanding. Students with gifts and talents demonstrate self-knowledge with respect to their interests, strengths, identities, and needs in socio-emotional development and in intellectual, academic, creative, leadership, and artistic domains.
GIFT.PK-12.1.1.1	Educators engage students with gifts and talents in identifying interests, strengths, and gifts.
GIFT.PK-12.1.1.2	Educators assist students with gifts and talents in developing identities supportive of achievement.
GIFT.PK-12.1.2	Self-Understanding. Students with gifts and talents possess a developmentally appropriate understanding of how they learn and grow; they recognize the influences of their beliefs, traditions, and values on their learning and behavior.
GIFT.PK-12.1.3	Self-Understanding. Students with gifts and talents demonstrate understanding of and respect for similarities and differences between themselves and their peer group and others in the general population.
GIFT.PK-12.1.5	Awareness of Needs. Students' families and communities understand similarities and differences with respect to the development and characteristics of advanced and typical learners and support students with gifts and talents' needs.
GIFT.PK-12.1.6	Cognitive and Affective Growth. Students with gifts and talents benefit from meaningful and challenging learning activities addressing their unique characteristics and needs.
GIFT.PK-12.1.7	Cognitive and Affective Growth. Students with gifts and talents recognize their preferred approaches to learning and expand their repertoire.
GIFT.PK-12.2.4	Learning Progress and Outcomes. Students with gifts and talents demonstrate advanced and complex learning as a result of using multiple, appropriate, and ongoing assessments.
GIFT.PK-12.2.6	Evaluation of Programming. Students identified with gifts and talents have increased access and they show significant learning progress as a result of improving components of gifted education programming.
GIFT.PK-12.3.1	Curriculum Planning. Students with gifts and talents demonstrate growth commensurate with aptitude during the school year.
GIFT.PK-12.3.2	Talent Development. Students with gifts and talents become more competent in multiple talent areas and across dimensions of learning.
GIFT.PK-12.3.3	Talent Development. Students with gifts and talents develop their abilities in their domain of talent and/or area of interest.
GIFT.PK-12.3.4	Instructional Strategies. Students with gifts and talents become independent investigators.
GIFT.PK-12.3.5	Culturally Relevant Curriculum. Students with gifts and talents develop knowledge and skills for living and being productive in a multicultural, diverse, and global society.
GIFT.PK-12.3.6	Resources. Students with gifts and talents benefit from gifted education programming that provides a variety of high quality resources and materials.

GIFT.PK-12.4.1	Personal Competence. Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
GIFT.PK-12.4.2	Social Competence. Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.
GIFT.PK-12.4.3	Leadership. Students with gifts and talents demonstrate personal and social responsibility and leadership skills.
GIFT.PK-12.4.4	Cultural Competence. Students with gifts and talents value their own and others' language, heritage, and circumstance. They possess skills in communicating, teaming, and collaborating with diverse individuals and across diverse groups.1 They use positive strategies to address social issues, including discrimination and stereotyping.
GIFT.PK-12.4.5	Communication Competence. Students with gifts and talents develop competence in interpersonal and technical communication skills. They demonstrate advanced oral and written skills, balanced biliteracy or multiliteracy, and creative expression. They display fluency with technologies that support effective communication.
	Learning environments foster personal and social responsibility, multicultural competence, and interpersonal and technical communication skills for leadership in the 21st century to ensure specific student outcomes.

Integration of Career Readiness, Life Literacies and Key Skills

CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP11	Use technology to enhance productivity.

Integration of Computer Science and Design Thinking

CS.K-2.8.2.2.ETW.4	Explain how the disposal of or reusing a product affects the local and global environment.
CS.K-2.NI	Networks and the Internet
CS.K-2.ETW	Effects of Technology on the Natural World
	Real world information can be stored and manipulated in programs as data (e.g., numbers, words, colors, images).
	The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals. Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants. Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.
	Connecting devices to a network or the Internet provides great benefits, but care must be taken to use authentication measures, such as strong passwords, to protect devices and information from unauthorized access.

	Data can be used to make predictions about the world.
	Computers store data that can be retrieved later. Data can be copied, stored in multiple locations, and retrieved.
	Computer networks can be used to connect individuals to other individuals, places, information, and ideas. The Internet enables individuals to connect with others worldwide.
	Individuals collect, use, and display data about individuals and the world around them.

Interdisciplinary Connections: NJSLS for ELA, Social Studies, Science and/or Math

SCI.K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
	Examples of plants and animals changing their environment could include a squirrel digs in the ground to hide its food and tree roots can break concrete.
	Plants and animals can change their environment.
SCI.K.ESS3.C	Human Impacts on Earth Systems
SCI.K-ESS3	Earth and Human Activity
SCI.K-ESS3-1	Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
SCI.K-ESS3-3	Communicate solutions that will reduce the impact of climate change and humans on the land, water, air, and/or other living things in the local environment.
	Obtaining, Evaluating, and Communicating Information
SCI.K.ESS3.C	Human Impacts on Earth Systems
	Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.
SCI.K.ETS1.B	Developing Possible Solutions
	Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.
	Cause and Effect
	Events have causes that generate observable patterns.