



Ocean Leader Bridge Program

Module 2: Curriculum (Team Leads Only)



AGENDA

- Syllabus & Schedule
- Community Building
- Science Labs:
 - Day 1 & Day 2
 - Invert Days
 - Fish Days
 - Marine Mammal Days
- Process Reflection
- Growth Mindset Tools
 - Self-Reflection
 - Healthy Bodies
- Servant Leadership & Reminders
- Family & Friends Celebration



SYLLABUS

Day	Science Lab
Day 1 Mon. 6/19	<i>Pathway of an Ocean Leader</i> Ocean Leader Challenge
Day 2 Tues. 6/20	<i>Team Building</i> Field Trip
Day 3 Wed. 6/21	<i>Explore & Wonder: Invertebrates</i> Field Trip: La Jolla Tidepools
Day 4 Thurs. 6/22	<i>Investigate: Invertebrates</i> Life on the Rocks Experiment
Day 5 Fri. 6/23	<i>Make a Difference: Invertebrates</i> Field Trip: Scripps Institution of Oceanography
Day 6 Sat. 6/24	<i>Explore & Wonder: Fish</i> Field Trip: Birch Aquarium

Day 7 Sun. 6/25	<i>Investigate: Fish</i> Shark & Fish Dissection
Day 8 Mon. 6/26	<i>Make a Difference: Fish</i> Field Trip: University of San Diego
Day 9 Tues. 6/27	<i>Explore & Wonder: Marine Mammals</i> Field Trip: La Jolla
Day 10 Wed. 6/28	<i>Investigate: Marine Mammals</i> Research with Drones
Day 11 Thurs. 6/29	<i>Make a Difference: Marine Mammals</i> Field Trip: Southwest Fisheries
Day 12 Fri. 6/30	<i>Final Exam & Family Celebration</i> Final Exam & Celebration Prep



DAILY SCHEDULE

Start Time	End Time	Activity
8:45AM	9:00AM	Arrive
9:00AM	9:45AM	Community Building
9:45AM	12:15PM	Science Labs
12:15PM	12:45PM	Lunch
12:45PM	1:05PM	Process Reflection
1:05PM	1:55PM	Growth Mindset Tools #1
1:55PM	2:45PM	Growth Mindset Tools #2
2:45PM	3:00PM	Servant Leadership & Reminders

Science Lab Schedule – Explore and Make a Difference Days			
Start Time	End Time	Activity	Notes
9:25AM	10:00AM	Drive to Location	(Food & Conversation and Announcements only)
10:00AM	12:00PM	Explore	
12:00PM	12:30PM	Return to Lab	

Science Lab Schedule – Investigate Days		
Start Time	End Time	Activity
9:45AM	10:15AM	Lecture & Concept Map
10:15AM	11:00AM	Know it! Own it!
11:00AM	12:15PM	Investigate Activity

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COMMUNITY BUILDING

Time	Activity
9:00 – 9:30	Food & Conversation
9:30 – 9:40	Community Building Activity
9:40 – 9:45	Announcements

Goal: Students create a community of support to fall back on when challenges arise and a network to access to pursue future opportunities.

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SCIENCE LABS: DAY 1

- Ocean Discovery Leadership Challenge
- Mentee Training
- Living Lab Scavenger Hunt

OCEAN DISCOVERY LEADERSHIP CHALLENGE

1. Read Clue #1 (from supply backpack) to find a location in the canyon.
2. Find the location and complete a challenge.
3. Record your challenge on datasheet.
4. Read Clue #2 and repeat until you have completed all four challenges.

Clue #1:
Travel down the canyon
in the direction
water will flow.
When you find a ribbon
you'll be good to go.

Challenge #1 – Marshmallow Tower

Goal: Build the tallest tower!

Work as a team to build the tallest free-standing structure in 10 minutes using no more than 20 sticks of spaghetti, 5 pieces of tape, one yard of string, and one marshmallow.

The structure has to stand firmly on its own; it cannot be propped up, held, or suspended from anything. When 10 minutes is up – you must figure out a way to prove how tall your tower is and take a picture.

Data collector will record the height of the tower.
(Winning team will be determined back at the Living Lab.)

Ocean Discovery Leadership Challenge Datasheet

Challenge #1: Marshmallow Tower
Height of tower (in feet) _____

Challenge #2: Nothing in Common
Time to Complete Challenge (in minutes and seconds) _____

Challenge #3: Water Balloon Toss
Furthest Distance (in feet) _____

Challenge #4: Leadership
Time to Complete Challenge (in minutes and seconds) _____

MENTEE TRAINING

MENTORS

What is a Mentor?

Amazing people who volunteer their time because they BELIEVE in you and your ability to become a future science leader!

Mentors can be older Ocean Leaders, Ocean Discovery staff, or scientists who offer advice, share their experiences, and help you understand things that are confusing to you.



LIVING LAB SCAVENGER HUNT

Living Lab Scavenger Hunt

Task	Complete (x)
Locate the Grimes Family Achievement Alcove – look around at all the pennants from the many different colleges Ocean Leaders have attended. Someday you will follow in their footsteps! Write down three college pennants you see.	
Find the David C. Copley Ocean Alcove . <ul style="list-style-type: none"> • What's one thing you can do in the Ocean Alcove during the school year? 	
Find the Cox Innovation Alcove . Locate the whiteboard outside of this space. <ul style="list-style-type: none"> • Complete the TWO tasks on the whiteboard. 	
Find the Living Roof and find the card with a picture of Odi the Ocean Discovery mascot. <ul style="list-style-type: none"> • What is Odi's one request when you arrive for Bridge program? 	
Locate the Scientist in Residence . This is a place where scientists from around the world stay when they come here to work with science leaders like yourself. <ul style="list-style-type: none"> • What kind of scientist would you most like to meet (you can have more than one answer). 	
Find the room called Storage 2 . Inside look for a laminated card on the bench. What does this card tell you?	

?

Team Building!



DAYS 3-5: INVERTEBRATE DAYS

Day 3: Explore and Wonder

Day 4: Investigate

Day 5: Make a Difference



DAY 3: EXPLORE AND WONDER

Field Trip: La Jolla Tidepools

Goal: Students make observations and ask questions about invertebrates.



DAY 4: INVESTIGATE



1. Study Living Invertebrates



2. Build Your Own Invertebrate From Clay



3. Place Your Clay Invertebrate on the Plexiglass



4. See if your Invertebrate Can Survive a “Wave”!

DAY 5: MAKE A DIFFERENCE

Field Trip: Scripps Institution of Oceanography

Goal: Students to learn about current research science leaders are doing to help conserve invertebrates and to hear about the career pathways of individual science leaders.

Time	Activity	Role
10:00 – 10:10AM	Arrival	Ocean Discovery
10:10 – 10:20AM	Overview of Facility	Scripps Staff
10:20 – 10:45AM	Rotation 1	Scripps Staff
10:45 – 11:10AM	Rotation 2	Scripps Staff
11:10 – 11:35AM	Rotation 3	Scripps Staff
11:35 – 11:40AM	Thank You	Ocean Discovery
11:40 – 12:00PM	Lunch	Ocean Discovery
12:00PM	Depart	Ocean Discovery



DAYS 6-8: FISH DAYS

Day 6: Explore and Wonder

- Birch Aquarium

Day 7: Investigate

- Shark & Bony Fish Dissections

Day 8: Make a Difference

- University of San Diego



DAYS 9-11: MARINE MAMMAL DAYS

Day 9: Explore and Wonder

- La Jolla

Day 10: Investigate

- Drones

Day 11: Make a Difference

- NOAA Southwest Fisheries Science Center



DAYS 8-9: OVERNIGHT

Camping Rancho Cuyamaca State Park

- Set-up tents
- Hike up Stonewall Peak
- Dinner
- Campfire
- Bed



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PROCESS REFLECTION

Day 1-2: Growth Mindset Overview

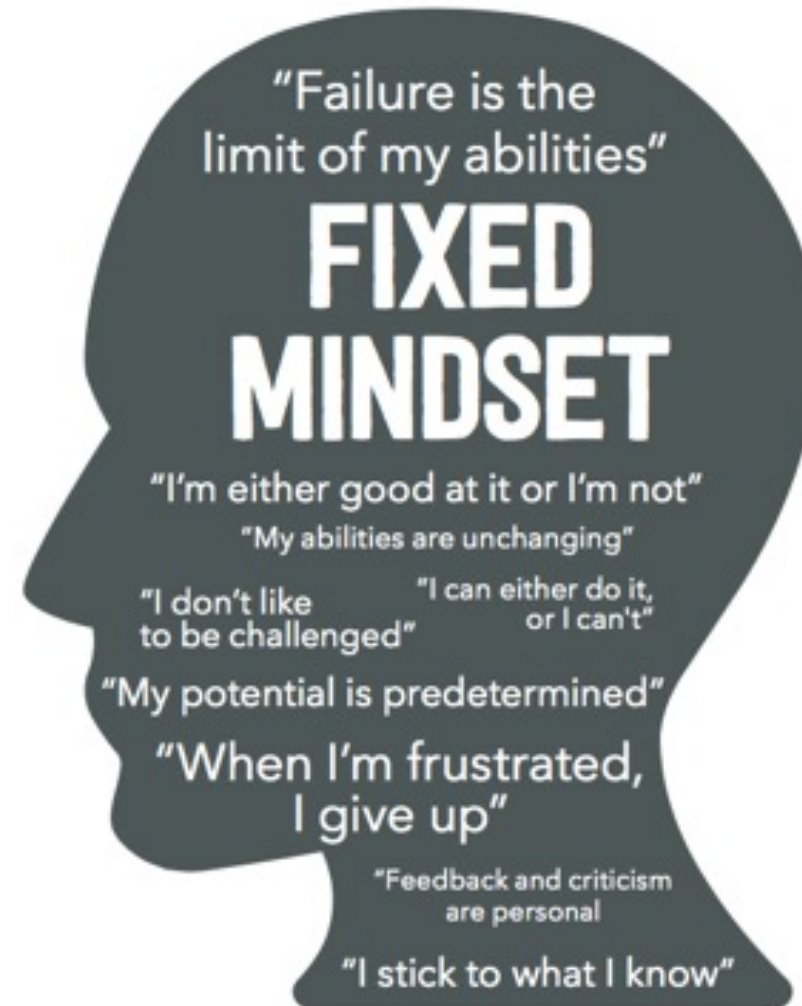
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GROWTH MINDSET

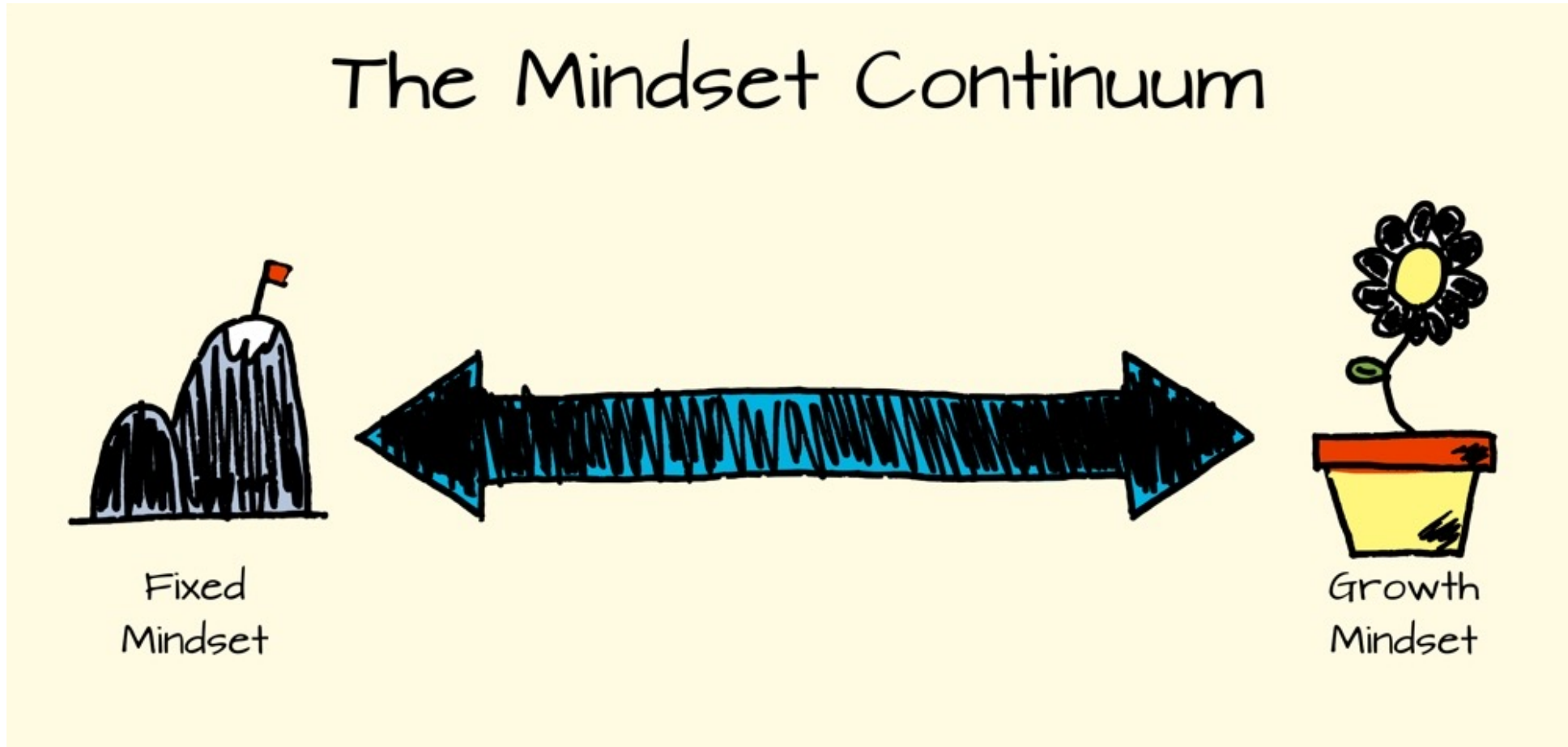
Having a growth mindset means you believe your intelligence, abilities, and skills can be developed. That learning takes time and effort and challenges are an opportunity to grow.



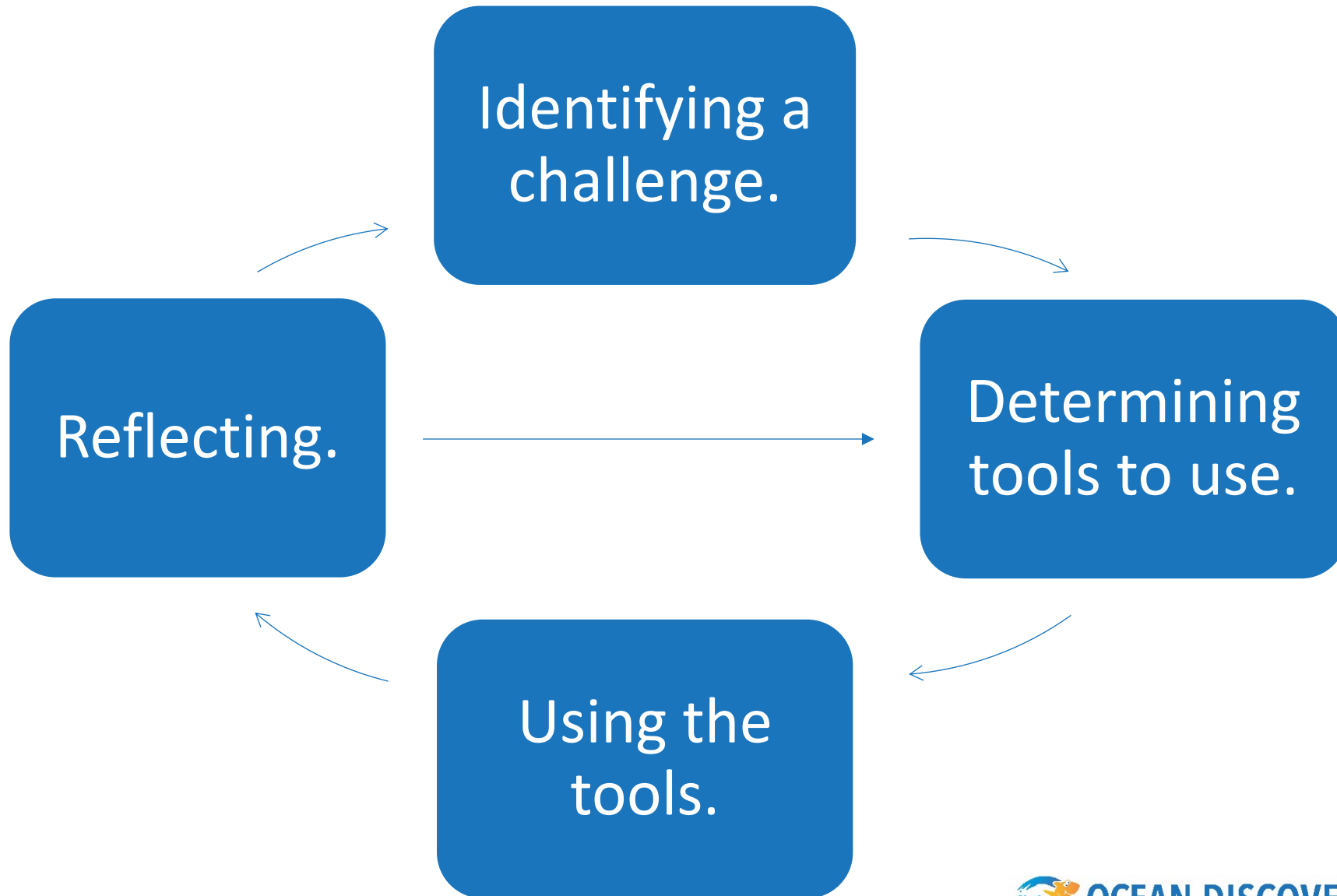
FIXED VS. GROWTH MINDSET



GROWTH MINDSET CONTINUUM



GROWTH MINDSET PRACTICE



GROWTH MINDSET TOOLS

Learning

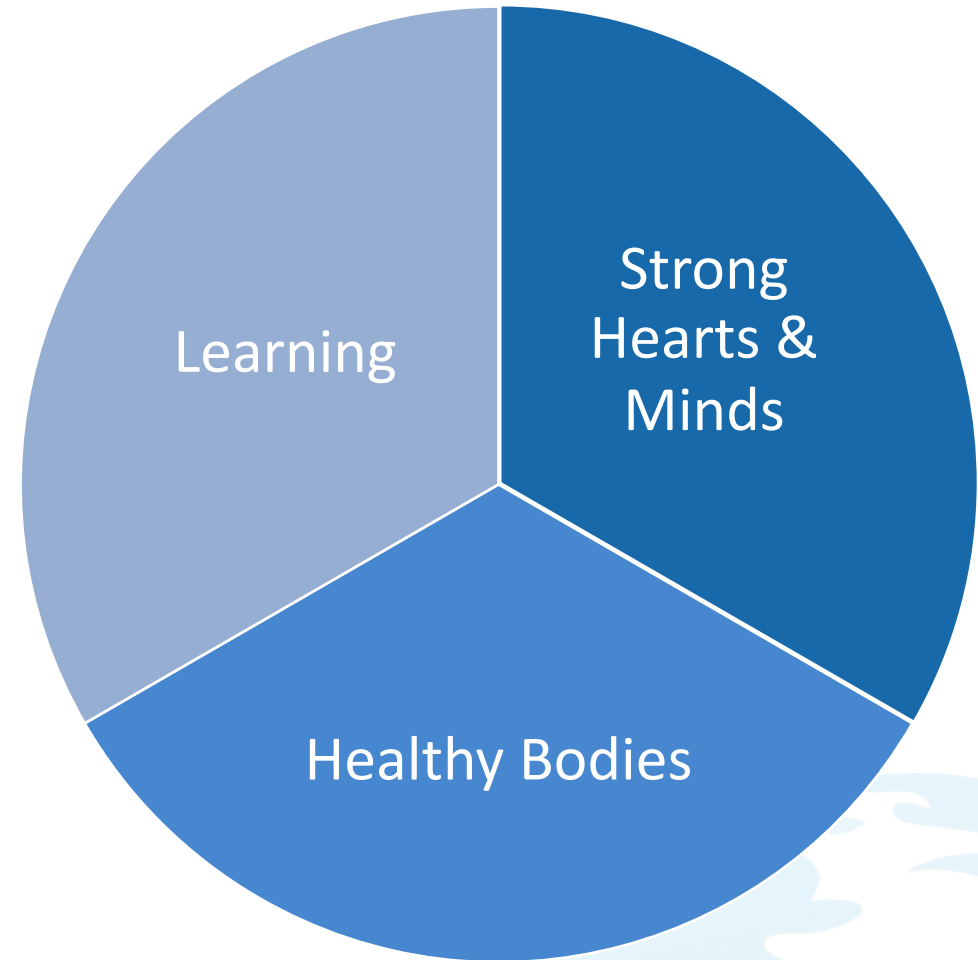
- Flash cards
- Concept Maps
- Study Time
- Ask an Expert

Strong Hearts & Minds

- Self-reflection

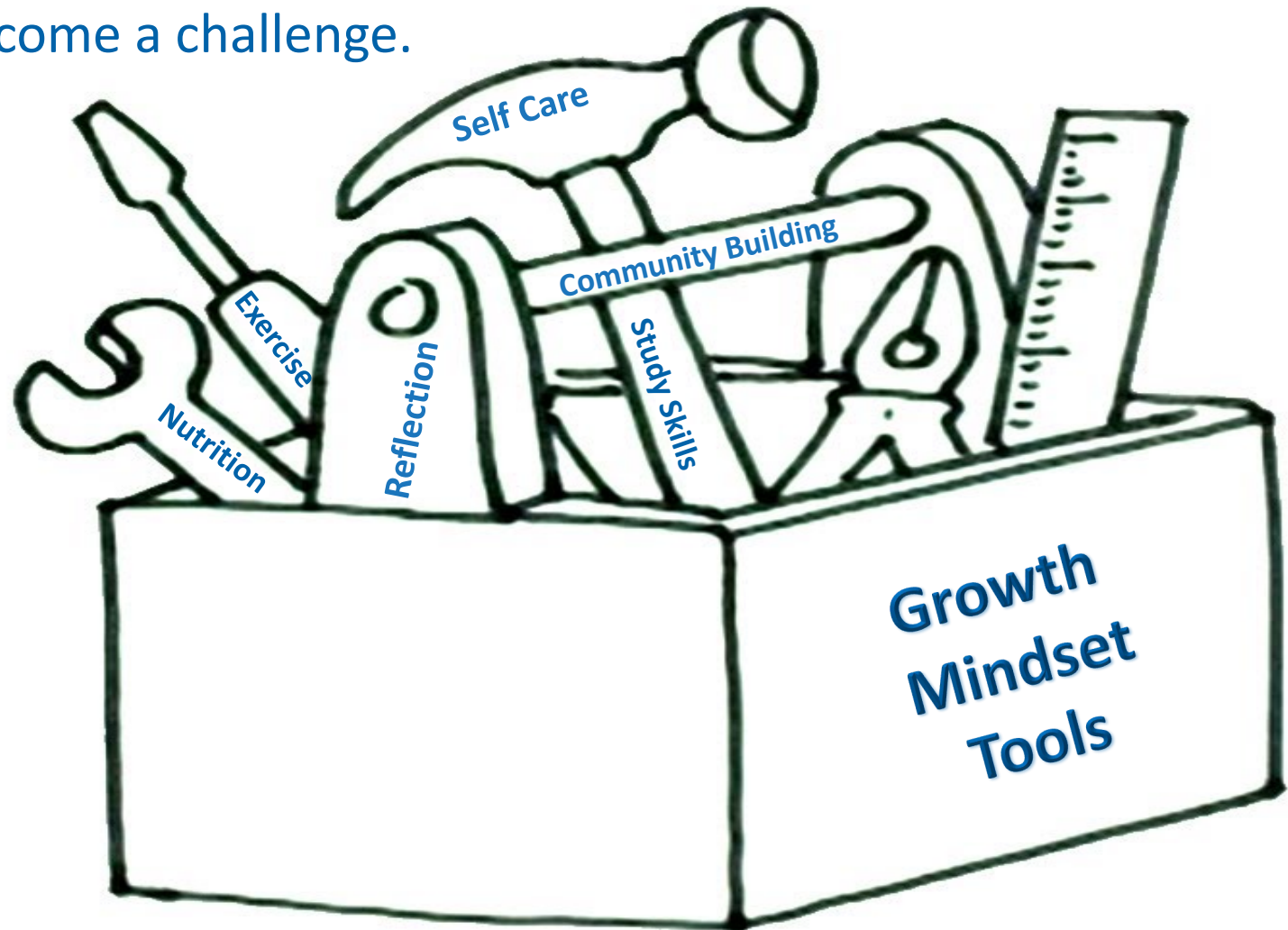
Healthy Bodies

- Exercise
- Nutrition



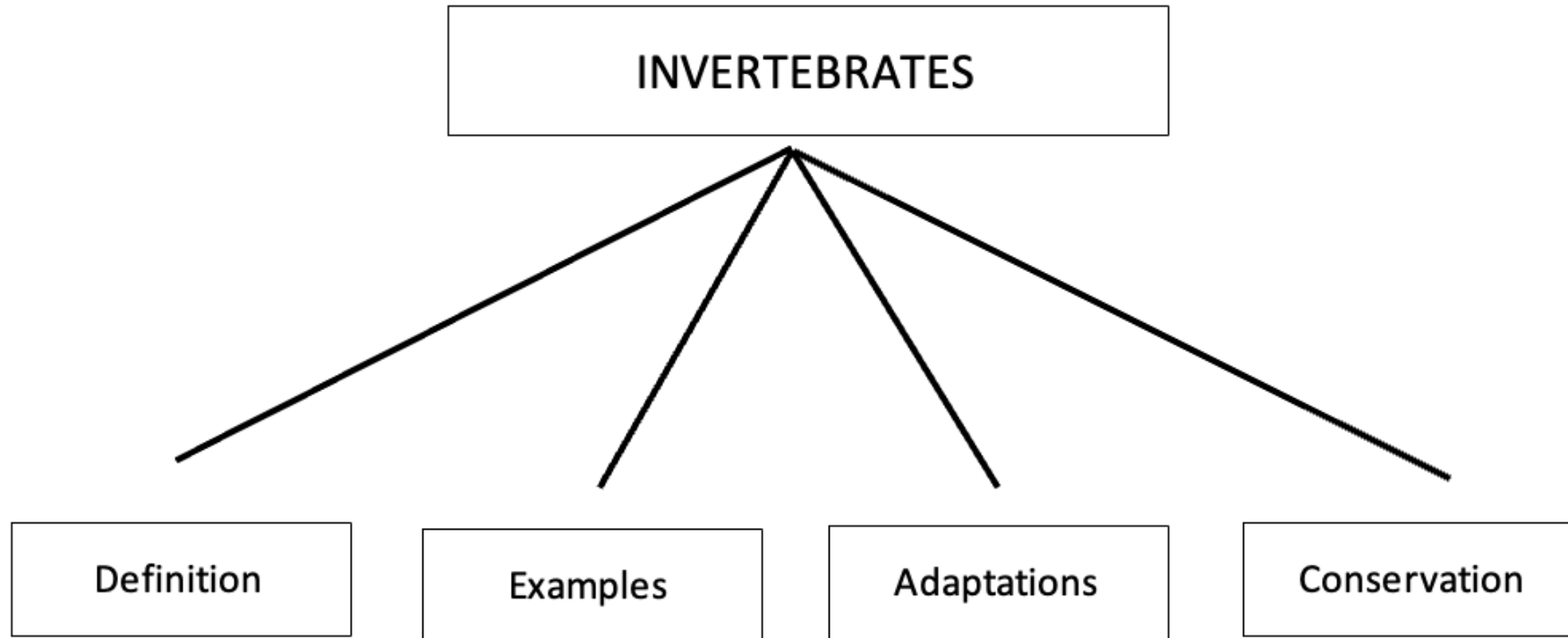
GROWTH MINDSET: TOOLS

Growth Mindset Tool : a skill or habit that can be used by students to overcome a challenge.



PROCESS REFLECTION

Day 3-12: Concept Maps



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GROWTH MINDSET

Self Reflection

- Responding to prompts from Writer in Residence

Healthy Bodies Activities

- Exercise
- Nutrition

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SERVANT LEADERSHIP & REMINDERS

REMINDERS

- Don't forget to bring your backpack and wear your polo!
- Tomorrow for the field you must have the following:
 - Backpack
 - Hats
 - Sleeves
 - Water bottle
 - Sunglasses
 - Closed-toed shoes



SERVANT LEADERSHIP & REMINDERS

SERVANT LEADERSHIP

- Mentors to meet with IPM for debrief.
- Return science notebook and any materials used to personal bins.
- Chores:
 - Return tables and chairs to original positions.
 - Wipe down tables and chairs.
 - Place chairs on top of table.
 - Take cups to dishwasher and load dishwasher.
 - Sweep floor.
 - Help pack up & carry supplies to storage (accompanied by adult).
- Pick up any remaining trash/paper on the floor and throw away/recycle.



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FINAL EXAM

Final Exam

- Multiple Choice
- Short Answer
- ~10 questions

Prep for Exams

- Days 3-11
 - Process Reflection
- Days 4, 7, 10, 12
 - Flash Cards
 - Ask an Expert
 - Study Time

FAMILY & FRIENDS CELEBRATION

**TIME TO CELEBRATE AND SHARE
OUR ACCOMPLISHMENTS!! 😊**

What happens:

- Family Tour (All)
 - Live Inverts (Invertebrates)
 - Shark (Fish)
 - Drone (Marine Mammals)
 - Slideshow
- I AM Poems (All)
- Self-Reflection (selected students)





THANK YOU!

