

Applied BRAiNOLOGY®

Lesson 2

Malleable Mind and Setting Growth-Minded Goals

- Brain and Neuron Art
- Goal-Setting Mini Lesson 1: Setting the Goal
- Self-Assessment: Brain Health Scan

Lesson 2

Students will learn about what makes a good SMART Goal and draft a goal they would like to work toward in the weeks ahead.



Lesson 2: Malleable Mind and Setting Growth-Minded Goals



Strands: Goal-setting and Growth Mindset

Objectives:

- Students will learn that their brains grow, change, and become more intelligent with effort.
- Students will reflect about what in their lives they would like to get better at and how much effort they have put into it to date.
- Students will brainstorm what makes a good goal (SMART goal) and draft a goal that they would like to work towards in the next 7 weeks.

Time: 40-45 min.

Materials: Neural Growth handout; Growth-minded goal setting template and Brain Scan handouts

Activity 1: Brain and Neuron Art

1. Student materials: Neural Growth (brain graphic) handout; 3 different colored pens or pencils
2. Students reflect about 1 or 2 things that they are “good at.” Ask: *What is something that you are pretty good at that you have spent some time learning to do?*
3. Students draw a neuron in the empty box with the teacher modeling. They are told to pretend it’s a strong neuron and represents the thing they currently feel they are pretty “good at.” Students should write an explanation of how they drew their neuron to make it appear strong.
4. Next, tell students: *Choose three things you would like to be very good at doing (e.g., math, singing, soccer, etc.). Write each on one of the lines in the “key.” Choose a different color to represent each thing.*
5. With the teacher modeling, students should draw brain neurons on the brain graphic that represent how good they are now at each of those things. Tell the students: *Something you are good at should be drawn with lots of neurons, connected by dendrites. Something you are struggling with should be drawn with just 2 neurons, not connected to each other. Something that you are not at all good at or perhaps haven’t even tried yet should be drawn with just a single neuron.*
6. Have kids add neurons over the course of the school year when they practice their skills, to fill up their brains even more!

Activity 2: Goal-Setting Mini Lesson 1: Setting the Goal

Connect Setting Goals to Growth Mindsets and the Malleable Mind: Frame this part of the lesson by reminding students: *Since we know we can grow our brains, and we will be learning many strategies for growing our brains, it will be great to have a goal to work on to apply our new strategies and habits. So this year, we will first work on one goal and write a plan. Later, you will have a chance to re-set your goal or write a new one in a few weeks.*

1. What is a goal? Options:

- Student(s) brainstorm/turn and talk about the definition of a goal (chart via paper or Smartboard).
- Student looks up “goal” in the dictionary or online (dictionary.com unabridged definition: target, purpose, aim).

2. Why set a goal? Options:

- Popcorn response
- Turn and talk
- Share out and summarize: change or progress is wanted or needed; it helps us to focus, plan, and make progress; it helps us take charge of our learning, etc.

3. What is a Growth Mindset learning goal? Summarize:

- It is stated in a positive way:
 - I will learn to...
 - I will be able to...
 - I will succeed in...
- It is challenging but achievable.
- It includes growth in a capacity or skill.
- It reflects things we value.
- It recognizes potential barriers that need to be overcome.

4. Teacher provides or elicits examples of goals for the class grade level and content area.

- Intermediate goal: I will be able to add and subtract fractions.
- Middle School goal: I will succeed in mastering each of the nine concepts in Algebra I.
- High School goal: I will write an essay at the rubric score point 5 level by Spring.

5. Teacher provides a model of the goal template that is already filled out with the goal and shares it with the whole class to talk about the elements of a growth mindset goal.

- Explain to students that they will be setting individual growth mindset goals.
- Distribute goal template to each student.
- Working individually, in pairs, or in small groups, have students use their goal templates to define a personal growth mindset learning goal that is challenging, achievable, and reflects growth in a capacity or skill, and describe the possible obstacles they may come across.

Teacher can circulate as a consultant/facilitator, make individual appointments to review students' goals, and/or ask students to hand them in and provide written feedback before moving on to action planning.

The Teacher as Facilitator

Asking good questions is one of the keys to helping your students develop competence as independent learners. Good questions are open-ended; they require the student to think deeply; and, ideally, they are questions that you cannot answer yourself, where the student's unique perspective is important. Here are some sample questions you can ask students to help them create a great growth mindset goal:

If students set a pure performance goal—e.g., “get over 90% on a test”

- What do you think you would need to learn more about to reach that target?
- What would you need to get better at doing to achieve that score?
- Which “mind muscles” do you need to build up to get there?

If students don't know what skills and knowledge are needed for success on their goal:

- Let's look at the skills and content that are necessary to succeed at this. Here are some ideas [provide examples]. Which ones are most challenging for you right now? Which ones need to come first?
- Let's look at your past efforts to see where you (lost points/got confused/had difficulty) for clues on things to work on and improve.

If students choose goals that are not challenging or are unattainable in the timeframe:

- Do you think that this goal will challenge you at a high level? Are there ways that you could make it more of a growth goal so you will get stronger?
- That's a great thing to strive for—it's really challenging. Can you break down the goal into smaller steps so you can reach success in stages and learn from your growth and progress?

Note: Students are only writing their goals today—not completing the entire template.

Activity 3: Brain Health Scan

Suggestions for introducing the scans to students:

- Explain the purpose of the scan:
 - *This activity will help you give yourself a kind of “check-up” on your strategies, challenges, and mindset for learning. You'll be able to score yourself to see where you are now, and how to get into the Growth Zone, through smart strategies.*
 - *The purpose of the scan is to help you make good choices and boost your learning. You won't be graded on your answers. So don't worry about trying to “look good” here—this is a learning goal activity. The more truthfully you answer, the more it will help you, and you will see yourself move into the growth zone over time.*
- Introduce the particular scan using the text at the top of the page, for example: *To learn, grow, and perform well, you need to use strategies that help the brain develop new connections and get smarter. You can use this scan to get feedback on your learning strategies and how you can improve them.*
- If time permits, teachers can demonstrate filling out the scan and self-scoring (answering candidly to model a growth-oriented learning goal), and reading their feedback to the class, highlighting the areas where they have room for growth.
- Tell the class: *Now you try it—let's see where you have room to grow!*

Pass out copies of the Brain Health Scan and give students 3 minutes to take the survey. Remind students that every day is an opportunity to make good, brain-healthy choices. After students add up their scores, they can read the feedback to find out why and how these habits help their brains grow.

Ask students to turn to page 3 and choose one area to focus on improving. They can look at their answers and choose something from the category where they scored 1's or 2's. If they did not circle any 1's or 2's, then they can think about how they could challenge themselves to take on a new fitness goal.

Model for students some ideas on how to plan for improving. It can be helpful for students to share their goals with another person (like a peer or a parent) to add a level of accountability and support for reaching their goals.

Neural Growth

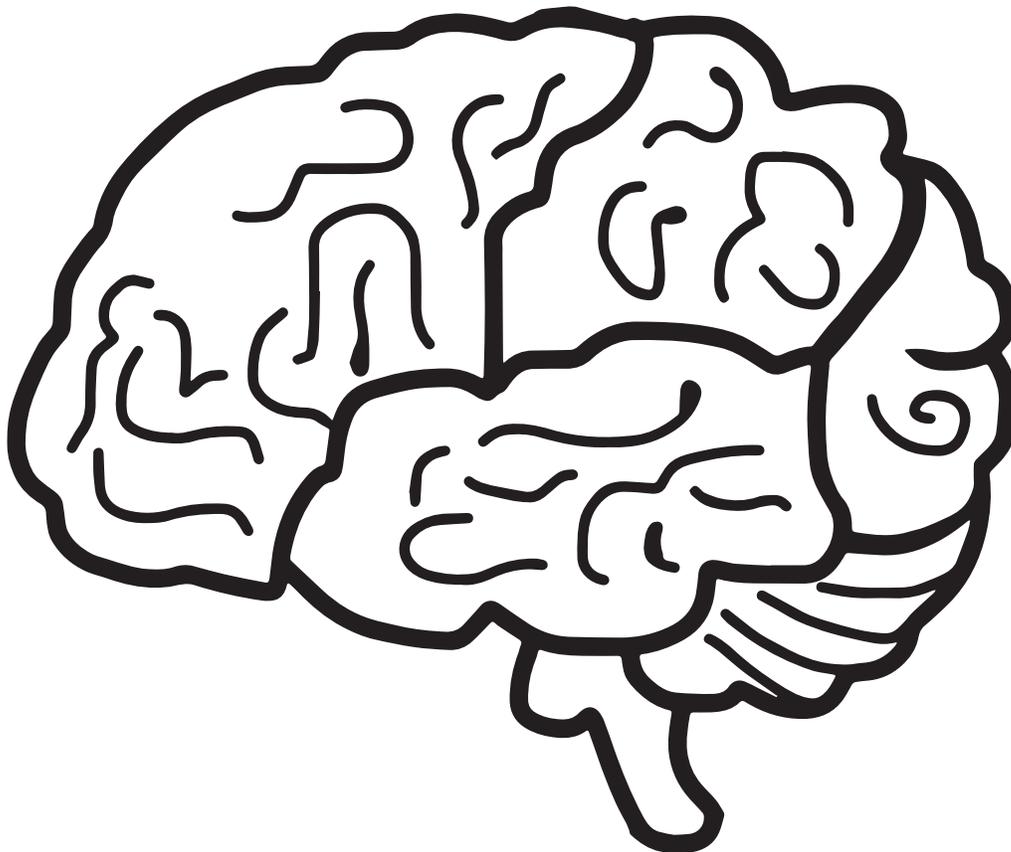
Step One: Draw a healthy, strong brain neuron in the box below. Explain what you added to your drawing to show the neuron is healthy.

Step Two: Choose three things you would like to be very good at. Write each on one of the lines in the "key." Choose a color to represent each thing (a different color for each goal).

Step Three: Using all three colors, draw brain neurons on your brain that represent how good you are now at each of those things. If you have put in more practice in one thing than another, add more neurons!

Neuron

Explanation



Key		_____

GROWTH MINDSET GOAL ACTION PLANNING FRAMEWORK

Specific
Motivational
Actionable
Realistic
Time-bound
GOALS

What is my SMART goal?

Current State
Where am I now? To meet this goal, what new skills or knowledge will I need to learn?

Identify Obstacles

What fears or barriers might be holding me back?



What obstacles might happen as I work toward my goal?

How do I sabotage myself and limit my own success?

ACTION PLAN: TASK ANALYSIS

Task	Planned Completion Date	Notes
1.		
2.		
3.		
4.		
5.		

How will I know I achieved my goal?

Support System: Get plugged in!

Who could give me feedback on my progress and strategies?

Who can support me?

How often will I review my goal and plan?

Motivation Evaluation

How challenging is this goal for me?

a. Not at all... b. Somewhat... c. Very...
Can I do it?

a. Yes, definitely b. Probably c. Maybe d. Probably not

How motivated am I to achieve this goal? WHY?

a. Not at all... b. Somewhat... c. Very...

Who else wants me to achieve this goal and why?

What or who is inspiring to me (maybe has already been successful at this goal)?



Scan Your Brain Health

To learn, grow, and perform well, your brain needs to be physically healthy. Answer the following questions to get feedback on how healthy your brain habits are right now and how you can improve them. For each question below, circle the number next to your answer.

A. Sleep: How many hours of sleep did you get last night?

- 1) 6 or less
- 2) 7-8
- 3) 8 or more

B. Nutrition: How many of the following types of foods did you eat today?

- Fish or lean meat (fish, chicken, or turkey)
- Dairy (eggs, milk, cheese, or yogurt)
- Fruits and Vegetables (apples, oranges, broccoli, beans, spinach, etc.)
- Nuts and Grains (almonds, peanuts, walnuts, pistachios, cashews, whole wheat pasta, whole grain bread/cereal, bran muffin)

- 1) None of these food types
- 2) One of these food types
- 3) Two of these food types
- 4) Three or more of these food types

C. Exercise: What kind of exercise did you do today?

- 1) None
- 2) Light (for example, walking, housework)
- 3) Medium (dancing, skateboarding, baseball, hiking, etc.)
- 4) Heavy (running, swimming, basketball, soccer, etc.)

D. Exercise: How long did you do the exercise above?

- 1) Less than 10 minutes
- 2) 10-19 minutes
- 3) 20-30 minutes
- 4) More than 30 minutes

Score Your Brain Health

Add up all the numbers that you circled (1, 2, 3, or 4) and look at the feedback chart below.

If your total points were:	You were in the:	This means:
Less than 7	Fixed Mindset Zone	Your overall brain health for this period was in the fixed range. This means that your brain does not have all the support it needs to grow stronger. Sleep, nutrition, and exercise all help the brain learn. Look at the feedback below to see how you can keep your brain healthy and move into the Growth Zone.
7-11	Mixed Mindset Zone	Your overall brain health for this period was in the mixed range. This means that you are doing some good things for your brain, but it still does not have all the support it needs to grow stronger. Sleep, nutrition, and exercise all help the brain learn. Look at the feedback below to see how you can keep your brain healthy and move into the Growth Zone.
12 or more	Growth Mindset Zone	Your overall brain health was in the growth range. This means that you are doing lots of good things to make your brain healthy. Even so, there may be ways that you can do better. Sleep, nutrition, and exercise all help the brain learn. Read the feedback below to see how you can keep your brain healthy.
What can you do about it?		Take a look at your answers to each of the questions. Where did you circle a 3 or 4? Those were your healthy brain growth areas! Where did you circle a 1 or a 2? Those are the places to work on. Look at the categories below to see how moving yourself into the Growth Zone can help.
Sleep	The recommended amount of sleep is 8 hours or more for young people. When you sleep, your brain cleans out the junk, locks in new knowledge, and grows new brain cells. If you are having trouble sleeping, try using “square breathing” (from Brainology Level 2—see your Study Tips Guide).	
Nutrition	Good nutrition makes your brain cells work faster and better. Foods that are best for brain health are natural foods, like eggs, fish and poultry, low-fat dairy, fruits, vegetables, and whole grains. Try not to eat lots of sugar, fat, and salt found in processed snacks and fast food—they are not healthy for your brain.	
Exercise	Exercise gets oxygen flowing to your brain and makes you grow more new brain cells. Doing aerobic exercise—where your heart rate and breathing go up—for at least 20 minutes a day is best. This includes activities like dancing, jogging, swimming, basketball, soccer, or similar sports that get you moving.	

What will you do to help your brain stay in the Growth Zone?

I will focus on increasing my:

- Sleep
- Nutrition
- Exercise

How will you do this?

What I will do:

When will I do it?

Who will help me?

How will this help me to grow?