

## TenMarks and Growth Mindset

### 25-minute Lesson Plan

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#### 1. Before the Lesson: Lesson Objectives and Key Points

##### I. Lesson Objective

- a. SWBAT (Student Will Be Able To) define growth mindset versus fixed mindset.
- b. SWBAT identify opportunities to apply growth mindset throughout TenMarks math assignments.

##### II. Key Points that this lesson plan will address

- a. Why is growth mindset important? How can students demonstrate a growth mindset through TenMarks?
  1. Growth mindset helps students be more successful in school.
  2. TenMarks assignments can be difficult. It is important to remember that when we are challenged and learn from our mistakes our brains grow and we learn more in school.
- b. What is growth mindset?
  - i. Students with a growth mindset believe that intelligence can grow with learning and practice. They value effort and realize that mistakes are opportunities to develop and improve. They do not give up when something is hard. Students with growth mindset perform better in school because they believe that with hard work they can overcome challenges and learn. Students with fixed mindset tend to give up and as a result do not perform as well.
- c. How can we have a growth mindset when completing TenMarks math assignments?
  - i. Using hints and videos (before asking the teacher)
  - ii. Checking our work before submitting it for a grade
  - iii. Reading immediate feedback when we get a question wrong

#### 2. Lesson Materials

- I. TenMarks accounts for teacher/students

- a. If you already have a TenMarks, login here:  
<https://www.tenmarks.com/login/user>
- b. If you do not have a TenMarks account, create a free account here:  
<https://www.tenmarks.com/signup/teacher2>
- II. Teacher computer/tablet
- III. Projector/Screen
- IV. Student computers/tablets
- V. Student headphones

### 3. Lesson Plan: Teacher/Student Script and Activities

- I. Opening (2 min) - In this section, T (teacher) will review with Ss (students) the definition of a growth mindset and the brain research to support this theory. T will also introduce the importance of using growth mindset when approaching a TenMarks assignment.

*T: We have been talking about the importance of having a growth mindset when we are at school. What does it mean to have a growth mindset?*

*Ss: Students with a growth mindset believe that intelligence can grow with learning and practice. These students value effort and learning and do not give up when something is hard.*

*T: Why is it important to have a growth mindset when we are working on something challenging?*

*Ss: Students with a growth mindset realize that when we make mistakes and learn from them we help our brains to grow. If we believe that work that is challenging is an opportunity to learn and grow, our brains actually change. Our brains develop more neurons and the connections between them get faster when we have difficult tasks.*

*T: Why is it important to learn from our mistakes in school?*

*Ss: When we make mistakes during challenging work at school, we have the opportunity to practice, change our brains, and learn.*

*T: Today we are going to talk about ways we can practice a growth mindset when we are working on TenMarks math assignments. TenMarks math assignments can be challenging and there will be times when we make mistakes. It is important for us to remember that our mistakes are*

*opportunities for us to learn. TenMarks assignments and lessons provide us with many opportunities to apply our growth mindset when completing our math assignments.*

- II. Introduction to New Material (8 min): In this section, T will demonstrate the many opportunities TenMarks allows students to use growth mindset strategies to learn.

*T: In TenMarks math assignments, sometimes we may not know the answer at first but we need to remember that this does not mean we can't do something. It means that we don't know how to do it **yet**. TenMarks does a lot of things to help us answer the questions and learn from our mistakes. Let's look at the ways that we can do this.*

T will login to TenMarks assignment and demonstrate how students should approach answering questions.

*T: We have started our TenMarks math assignment and I am on the first question. I'm not sure what to do or where to start. A student with a fixed mindset would guess and move along. A student with growth mindset would click on the hints and videos. The hints and videos don't give you the answers. Instead, they provide you with tips and strategies to get started. Sometimes these tips can help your brain along as you work through the problem. What happens to your brain when we work through things that are challenging?*

*Ss: Your brain grows more neurons and the connections between them get faster. This happens most with difficult tasks.*

*Ts: So using the hints and videos allows you to get started and practice the problem. It is ok to make mistakes because it is an opportunity to learn.*

T will demonstrate watching the hints and videos and then work through the problem with the students.

*T: Now that we have worked through the problem, I have my answer and I could be ready to submit to see if it is correct. However, I am a student with a growth mindset and I want to make sure I am seeing every*

*opportunity as a chance to learn. I am going to check over my work before I submit to make sure I have not made any silly errors. This is another opportunity for us to learn and grow from our mistakes.*

After checking work and completing the problem correctly, T will move to the next question. This time the teacher will guide students to use the hints and videos, check her work, but submit an incorrect answer to demonstrate how to review immediate feedback.

*T: This time, I am also not sure how to start the problem. What should we do?*

*Ss: We should watch the hints and videos.*

*T: Let's watch the hints and videos and work through the problem. Let's also check our work when we are done. But this time, we are going to make a mistake so that we can see what TenMarks does to help us learn and grow.*

T will work with through problem and then make a mistake that the students know about and submit the answer. In this section, T should model not just reading the feedback, but also reflecting on each step and thinking about how to better approach the problem or avoid common errors in the future. It is in this way that feedback is most effective.

*T: Since we have gotten the question incorrect, TenMarks provides us with immediate feedback. The feedback includes some of the common mistakes made when approaching this problem and the way to learn from these mistakes to answer similar problems correctly throughout the rest of the assignment. What have we learned about the brain that can help us understand why it is important to read this feedback?*

*Ss: With a growth mindset, students know that mistakes are opportunities for our brain to grow and for us to learn. It is important to work through things that are difficult because it is these times that the brain grows more neurons and the connections between them get faster.*

*Ts: Yes. We also know that if we spend time learning from mistakes now, we can practice what we learn when we see a similar problem later in the assignment.*

<Note> If students are using TenMarks premium, T can demonstrate how amplifiers also encourage growth mindset strategies.

- III. Guided Practice (5 min): Ts will ask students to sign in to TenMarks and open an assignment. T will repeat exercise above, looking at a problem and using the growth mindset strategies throughout the TenMarks assignment.

*T: Now that we all have an assignment open, let's look at the first question. Let's all pretend we aren't sure how to get started. Or maybe we have an idea but want to make sure we are thinking about the problem correctly. What should students with a growth mindset do?*

*Ss: Use the hints and watch the videos.*

*T: Great, let's all put on our headphones now and do that. Afterwards, you can begin to work on the problem. Please do not submit your answer - wait for the group.*

T will provide students a chance to work through the problem. When students have completed, T will bring them back whole group.

*T: Now that you have worked through the problem, what would students with a growth mindset do? Would they submit their answer right away?*

*Ss: No, students with a growth mindset would check their work and then submit.*

*T: Please do that now. Then you can submit your answer. Please do not move on to the next problem.*

T will provide students a chance to check work and then come back to the whole group.

*T: Did anyone make a mistake?*

*Ss: (raise hands)*

*T: Is this something we should feel bad about?*

*Ss: No, this is another opportunity for us to grow our brain and learn.*

*T: What do students with a growth mindset do now?*

*Ss: Students should review immediate feedback to learn from this challenge and use what they learned when they continue through the assignment.*

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*T: Yes, please review the immediate feedback if you received it. What a great opportunity for us to learn!*

IV. Independent Practice (10 min): Ss will apply what they learned by completing their own TenMarks assignment

*T: Now that we have learned the ways we can apply growth mindset strategies during our assignments on TenMarks, let's work through our assignments individually. Please continue to use these strategies on your own.*