MEASUREMENT CONVERSION & VOLUME

TIME MACHINE ESCAPE ROOM

MagiCore

PRINTABLE • GOOGLE • WEBSCAPE™

Print & Digital Options

Printable Directions

Materials:
- Printed cards for each team
- Computer or Tablet for Videos (optional)

Duration: Approximately 90 minutes. You can also split this up into four 20- to 30-minute activities over four days, having students complete one challenge per day.
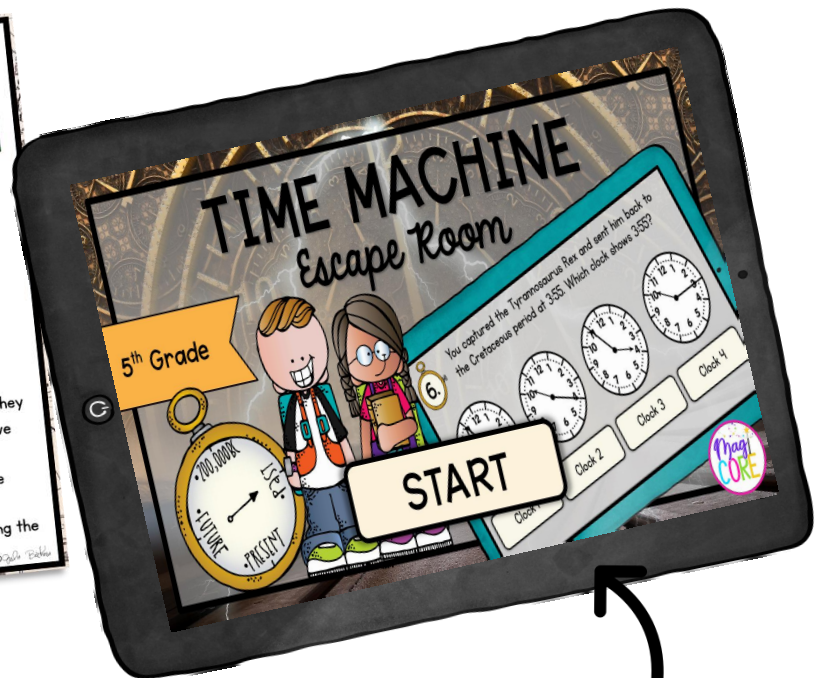
Prep
Print challenge cards and recording sheet for each team. Place challenge cards into envelopes.

Directions
1. Split your class into teams of 4-5 students. Ensure teams are multi-level.
2. (Optional) Show the introduction video.
3. Give each team their envelope for challenge #1.
4. Allow time for each team to work through each challenge. Once they solve the challenge, they should turn the code in to the teacher to check before the teacher assigns the consecutive challenge. (Optional) Teacher may show completion videos after each challenge is solved.
5. The first team to complete all four challenges solves the case and team members receive certificates.
6. Assign "oops" cards to help create equity. Give an "oops" card to students who are taking the lead, to encourage them to step back and give other students a turn.

TIME MACHINE Escape Room

5th Grade

You captured the Tyrannosaurus Rex and sent him back to the Cretaceous period at 3:55. Which clock shows 3:55?

Clock 2   Clock 3   Clock 4

START

Digital Instructions

Click the GREEN button below to access the Google Slides version of this resource.

Digital Escape Room

Click the YELLOW button below to access the Time Machine Decoder to use in Google Sheets.

Time Machine Decoder

Click the RED button below to watch a video to see how to use the digital version of this resource.
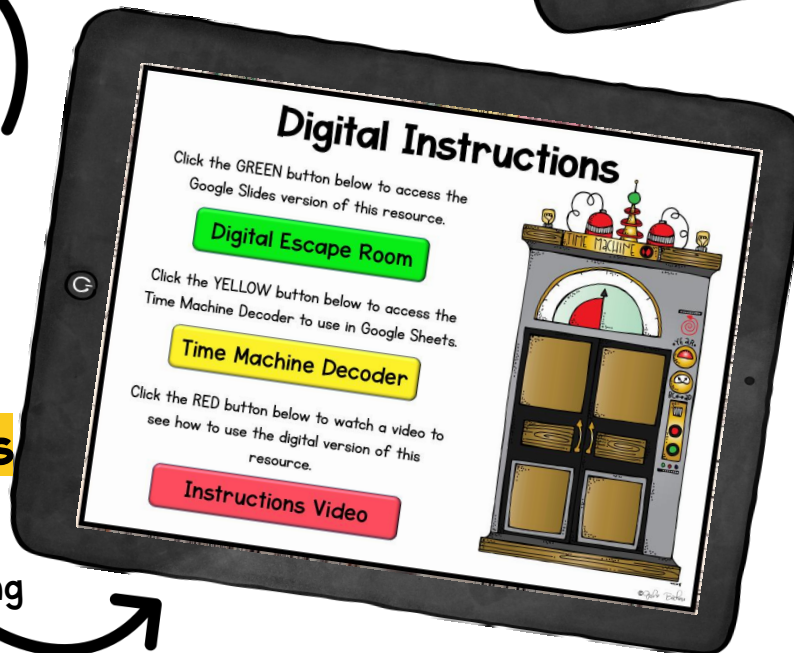
Instructions Video

Print
- Low prep
- Student collaboration
- Can eliminate technology

Google Slides
- Decoder included for self correcting
- Videos

Webscape
- Self correcting
- Easy to follow
- Animation
- Videos
- Audio

Print Friendly Version

Challenge #1

The Time Machine
By: H.G. Wells

1. Solve each measurement conversion problem.
2. Record answers on your brochure.
3. Check your answers in the Time Machine Decoder.
4. Add the book to your workshop.
5. Scan the QR code in the corner of the next page.
6. Move on to the challenge #2.

1. The time machine lo
   away from the ear
   How many kilometer
   land?

   Show your wo

   a. 135 kilometer
   b. 1.35 kilometer
   c. 0.0135 kilomet
   d. 0.135 kilomet

Challenge #4

1. Solve each volume problem.
2. Record answers on your brochure.
3. Check your answers in the Time Machine Decoder.
4. Add the Tyrannosaurus Rex to your workshop.
5. Scan the QR code in the corner of the next page.
6. Fix the time stream!

1. You were hungry when you arrived, so you bought a box lunch. The box has a length of 8.25 in and a height of 3.5 in. The volume is 115.5 cubic inches. How wide is the box your lunch came in?

   Show your work

   a. 4 inches
   b. 3.5 inches
   c. 5.75 inches
   d. 6 inches

2. You build a trap for the Tyrannosaurus Rex. It is 31 feet tall, and 17 feet long and wide. What is the volume of the trap?

   Show your work

   a. 8599 cubic feet
   b. 8959 cubic feet
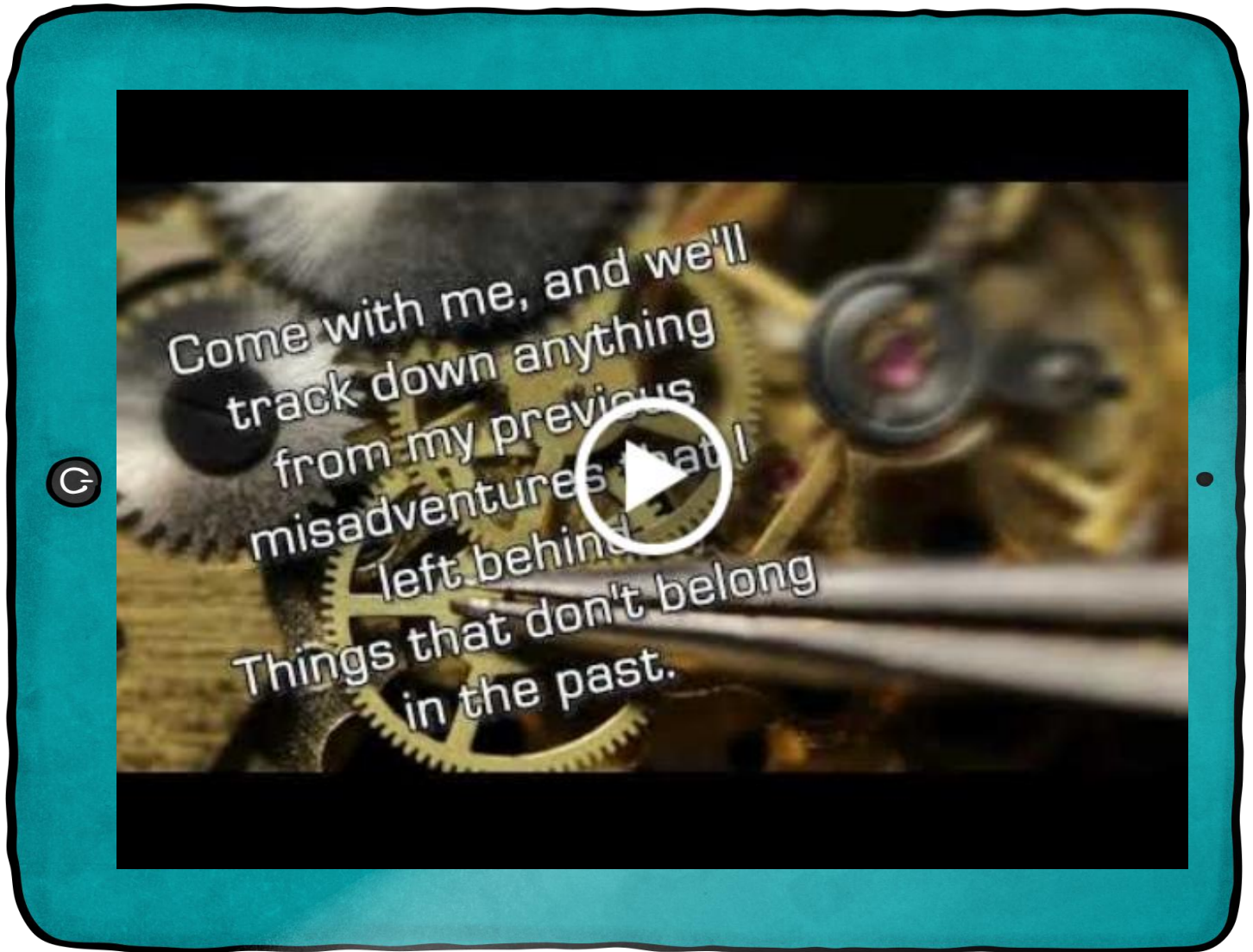   c. 8957 cubic feet
   d. 7697 cubic feet

3. One of the drivers on the highway tells you he had to fill up his extra rectangular gas tank to run from the Tyrannosaurus Rex. The volume of the extra tank is 1,165.5.5 cubic inches. The longest side is 18.5 inches. Find the correct equation that shows the volume.

   Show your work

   a. 18.5 x 13 x 5.25
   b. 18.5 x 12.25 x 5
   c. 18.5 x 12 x 5.25
   d. 18.5 x 12 x 5

Videos Tell the Story

Come with me, and we'll track down anything from my previous misadventures that I left behind. Things that don't belong in the past.

Four Standards-Based Math Challenges

Time Machine Escape Room

1. Challenge #1: Solve the measurement conversion problems to find the book.

2. Challenge #2: Solve the volume problems to find the smartphone.

3. Challenge #3: Solve the volume problems to find the fidget spinner.

4. Challenge #4: Solve the volume problems to find the Tyrannosaurus Rex.

©Paula Barbosa

Interactive

THE TIME MACHINE

HG WELLS

Drag the book from the cave into the workshop.

Challenges are Quick

Solve the Volume Problem

1.

You find some bricks they are using to build the Great Wall of China. One brick measures 4 cm by 15 cm by 8 cm. Another brick has a volume equal to one half the first brick. What might the dimensions of the second brick be?

Show your work

The answer is:

a.   2 cm by 6 cm by 20 cm

b.   4 cm by 6 cm by 12 cm

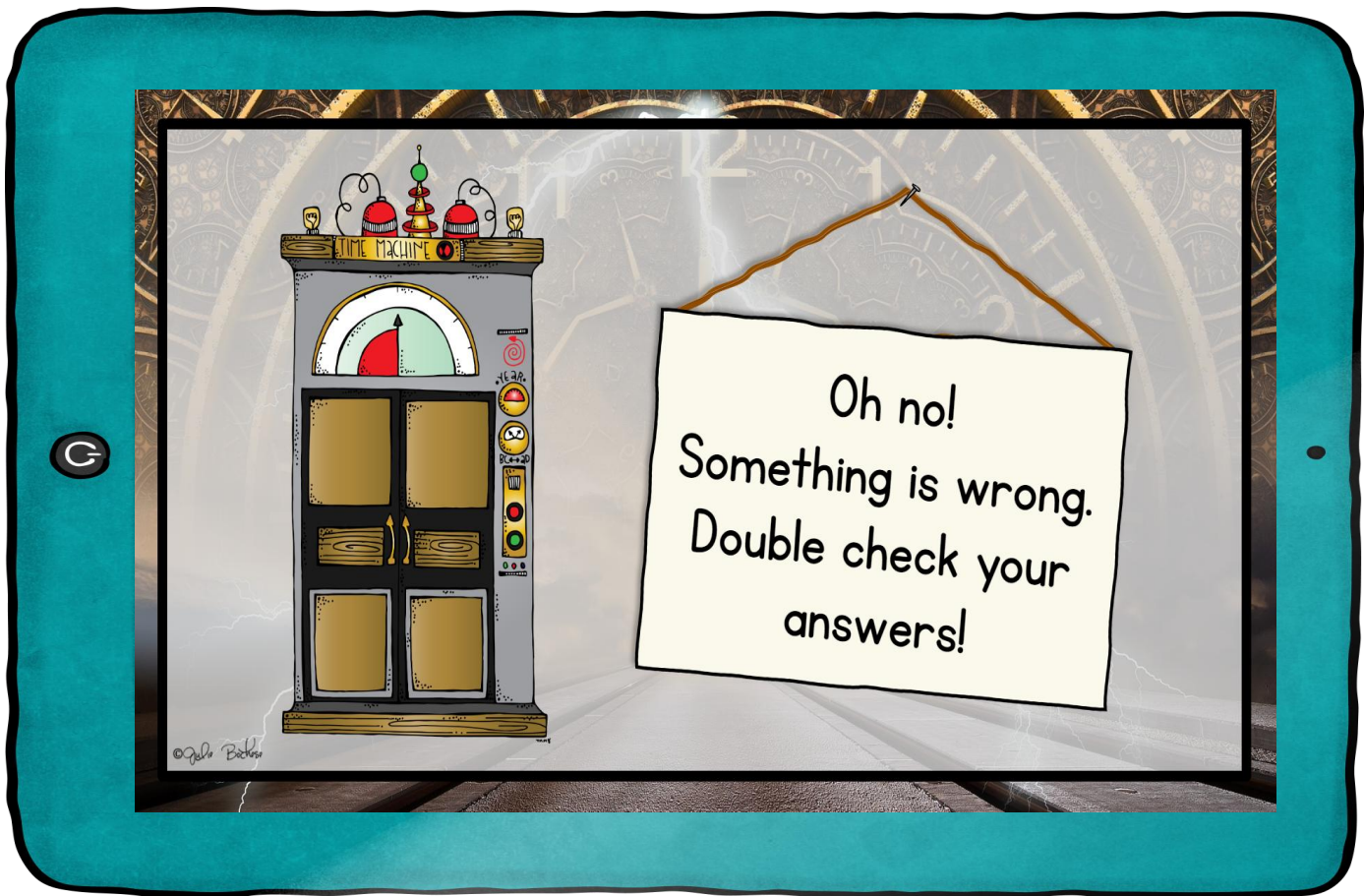c.   2 cm by 7 cm by 4 cm

d.   4 cm by 12 cm by 14 cm

Webscape™

Dear Patrick,

I've made a mess of history with my time machine. During my previous misadventures, I've left behind several items that do not belong in the past.

You must find the items I've left behind to repair the time stream.

1. Find the copy of H.G. Wells *The Time Machine*.
2. Find the GPS-enabled smart phone.
3. Find the fidget spinner.
4. Find the Tyrannosaurus Rex.

After each challenge, add the item to your workshop to fix the time stream.

Sincerely,
Time Traveling Tim

Most immersive and easy-to-follow experience.
Students follow directions with the click of a button.

Webscape™

Click on each question to solve the problem. The right answers will give you the clues to help you solve the challenge!

🔊 When did you find the smart phone?

| Genghis | Khan | had it |

| in | Question 5 | Question 6 |

©Studio Birthose

Includes option for audio on directions and questions.

Webscape™

Self-correcting but maintains rigor by ensuring students are not guessing.

Webscape™

5. The book is 4 times heavier than your watch. The total weight of the book and your watch is 5 pounds. Choose the answer that expresses the weight of each item in ounces.

Show your work here

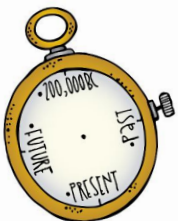| Watch: 16 ounces, book: 64 ounces | Watch: 12 ounces, book: 68 ounces | Watch: 64 ounces, book: 16 ounces | Watch: 68 ounces, book: 12 ounces |

©Julia Barbara

Questions review key 5ᵗʰ grade math skills.

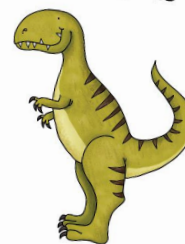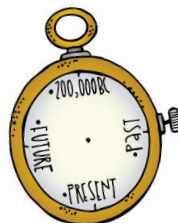# Printable Version Includes "Ooops!" Challenges

Ooops!

You got knocked down by Genghis Khan's horse and bumped your head.

YOU MUST STAY QUIET FOR ___ MINUTES. NO SPEAKING!

Ooops!

You got stuck in a traffic jam chasing the Tyrannosaurus Rex.
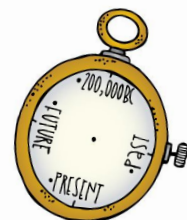
NO HELPING YOUR TEAM FOR 3 MINUTES!

©Julie Bochese

Printable Version Includes Recording Brochure & Decoder

Time Machine Decoder

Use the following codes for each challenge to solve the clues and move to the next challenge.

Challenge 1

question 1	question 2	question 3	question 4	question 5	question 6
a = The book	a = was in	a = the	a = at it	a = at the	
b = They	b = reading	b = the book	b = in ancient	a = Europe.	
c = Cavemen	c = were	c = burning	c = it	c = on the	b = Egypt.
d = People	d = are	d = looking	d = inside	d = it in	c = dawn of man.
					d = the 20th century.

Challenge 2

question 1	question 2	question 3	question 4	question 5	question 6
a = Genghis	a = George	a = was making	a = calls	a = to his	a = Mongolia.
b = King	b = Khan	b = was watching	b = videos	b = Medieval	b = England.
c = Queen	c = Elizabeth	c = had it	c = in	c = her castle	c = in 1955.
d = Alexander	d = the Great	d = was reading	d = a website	d = about himself	d = in Ancient Egypt.

Challenge 3

question 1	question 2	question 3	question 4	question 5	question 6
a = Queen	a = Elizabeth	a = gave it	a = throwing stars	a = during	a = Sengoku period.
b = A ninja	b = found it	b = instead of	b = to spy	b = on the	b = samurai.
c = A pterodactyl	c = was going	c = to feed	c = his babies	c = in the middle of	c = the Jurassic period.
d = John Adams	d = used it	d = to stay busy	d = in meetings	d = in	d = colonial America.

question 1	question 2	question 3	question 4	question 5	question 6
a = The T Rex	a = was found	a = running in	a = the Sengoku	a = period	a = of Japan.
b = He	b = was sent	b = away to	b = the cretaceous	b = time	b = by himself.
c = The dinosaur	c = had to go	c = back to	c = the	c = days	c = with the dinosaurs.
d = He was taken	d = to the	d = early days	d = of	d = Imperial	d = China.

©Julie Bochese
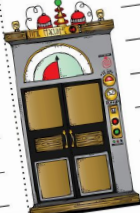
CHALLENGE 1

	Answer	Code
1.		
2.		
3.		
4.		
5.		
6.		

When did you find the book?

CHALLENGE 2

	Answer	Code
1.		
2.		
3.		
4.		
5.		
6.		

When did you find the smart phone?

CHALLENGE 3

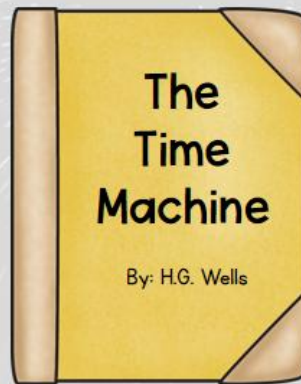|	Answer	Code
1.		
2.		
3.		
4.		
5.		
6.		

When did you find the fidget spinner?

Google Slides Prompt Students to use Decoder

Collect the Book

Enter your answers in the Time Machine Decoder to see if you found the book.

The Time Machine

By: H.G. Wells

DO NOT go to the next page until prompted to do so by the Decoder!