

Earth Day Bundle



Save the Planet

Reasons Support Points Escape Room

4th _ 5th
Grade

Print and Digital



Cut and paste the globe and place it
in your environmental scrapbook.
Then, continue to your next



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, record answers in their brochure. Then, turn the code in to the teacher to check before assigning the consecutive challenge. (Optional) Teacher may show completion videos after solved. Students can scan the video using the provided QR codes.
5. The first team to complete all four challenges wins the save the planet challenge.
6. Assign "oops" cards to help create equity. Give an "oops" card to students who are encourage them to step back and give other students a turn.



Digital Instructions

Click on the **BLUE** recycle symbol to access the Google Slides version of this resource.



Click on the **PINK** recycle symbol to access the Planet Saver Decoder to use in Google Sheets.



Click on the **GREEN** recycle symbol to watch a video to see how to use the digital version of this resource.



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Videos Tell the Story



Four Reasoning Skills Challenges

Challenge #3



Read the passages and answer the questions to collect the recycling bin and keep plastic out of the landfills.

Virtual Field Trip:

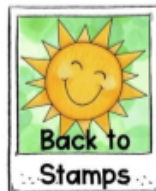
Recycling Facility for Earth Day



STEAM

Create Your Own Recycled

Click and drag the pictures to create a piece of recycled art.



Integrates Reading

Let's Explore!: What Is Recy

Recycling is the process of taking items that could go in the trash and co other things. Not every item we use can be recycled when we are finished with certain types of plastic, and metal can all be recycled. The process for recycling items by type. For example, all glass items go together. After the items are so down into their basic form, cleaned, and turned into something new. For exam paper is recycled, it is washed to remove the ink and glue. The next step is to take the wet, mushy paper and put it in a larger mixer with water. The wet paper is called slurry. Slurry is mixed with other materials to make different paper products. The slurry is set on rollers to dry. Then the new dried paper is rolled and cut for use.

What is slurry?



Click
more

Call to Action!

The 3R's: Reduce, Reuse And Recycle

Directions: Read the fast facts about the 3R's. Click and drag the icons to label statements as true or false.

Reduce:

- Don't use it unless you need it! This helps eliminate waste.
- Try to use items that are made from recycled materials.

Reuse:

- Look to repurpose any items that are still useable for something else. For example, shred used paper to make a nest for small pets like hamsters.

Recycle:

- If an item can be broken down and changed into a new item, put it in the recycle bin.
- Items like plastic, glass, paper, and metal are recyclable.

- It is not wasteful to use a small part of a piece and then throw it away.
- I can put anything in the recycle bin. All items are recyclable.
- Paper can be shredded and used as bedding for small pets like hamsters.
- Plastic, glass and metal are recyclable.

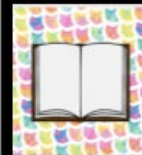
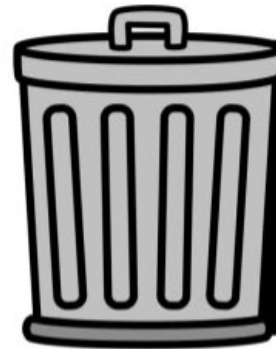
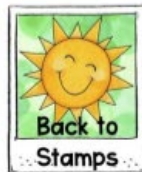
Fast Facts



Engaging & Educational Media

Sort-It!

Directions: Watch the video below and sort the items as recycle



Critical Thinking Skills

Recycle Vs. Landfill

Complete the graphic organizer by listing the main differences between recycling and using a landfill.



Share the Differences

Recycling

--	--

EARTH DAY PBL

Organize a Debate!

3rd — 5th Grades
Print & Digital

Reading & Social Studies



Print & Digital Versions

BIG BAD PLASTIC

Plastic bags and to-go containers are convenient. They allow busy humans to carry things easily. If we don't limit our use of these handy products, however, our oceans will be in trouble. They could have more plastic in them than fish by the year 2050.

We produce about 300 million tons of plastic waste each year. About 8 million tons of that plastic ends up in the world's oceans annually. We may only use these plastic products briefly, then throw them away. Plastic waste can survive in the environment for centuries, though. In fact, it breaks down into deadly plastic microbeads. This makes plastic a huge problem for the health of our planet and all who live on it.

Over 40% of all seabirds have eaten plastic. Guess what? So have you. In just a week's time, it's possible that you've eaten about 5 grams of plastic. That is about the size of a credit card. How does this happen? A fish swimming in the ocean is exposed to plastic waste that has traveled from land to rivers to the ocean. That fish is caught and sold in a supermarket. You buy and eat that fish. The toxins in the plastic the fish has eaten pass from the fish to you. These toxins have been linked to causing diseases such as cancer.

Plastic kills about one million seabirds each year. One hundred thousand marine animals get tangled up with plastic waste and die. Land animals suffer from plastic pollution just as much. All of these creatures need to be protected from plastic that humans create and throw away. If we don't become more responsible with how we handle plastic, the number of animals and humans affected will only rise.

People need to do everything they can to reduce the amount of plastic that is produced. One of the best things to do is to refuse plastic as much as possible. Saying no to plastic products means they don't have to be made in the first place. They won't end up becoming pollution if they are never created. Recycling plastic can be made into other products. This gives the plastic a new life.

Plastic can be made into other products. This gives the plastic a new life.

Containers are yet another option. They might not be as convenient, but they can be reused. Any way you look at it, plastic is a problem. It causes pollution and is being such a villain. People just have to care enough to take action.



EXAMPLE ARGUMENT

in support of plastic use

TOPIC:

The use of plastic

STANCE (PRO/CON/OTHER):

PRO: in support of the use of plastic

MAIN IDEA:

The use of plastic is positive in many ways because it can improve people's quality of life and help protect them. The use of plastic also has saved specific species of animals.

TALKING POINTS:

talking point #1:

Plastic is better than the alternative.

specific evidence to support talking point #1:

- Prior to the creation of plastic, natural materials such as elephant tusks were used to produce common objects.
- Plastic has saved many elephants.

OPPOSING VIEWS:

opposing view #1:

Plastic harms a lot of animals.



Original Video To Model a Debate

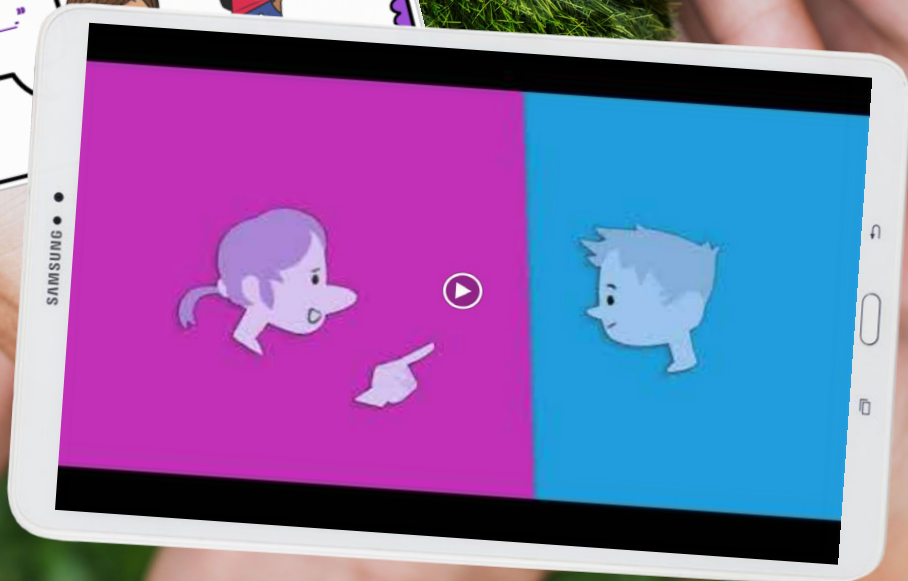
SENTENCE STARTERS

to use when delivering talking points

"I am suggesting
that _____
because _____."

"In my research, I
found that _____."

"The next
thing I would
like to discuss
is _____."



Multiple Passages for Students to Integrate Information from Multiple Texts

THE RIGHT TOOL

Climate change is on everyone's mind. Storms have grown fiercer. Temperatures have become more extreme. Ocean levels have risen. We've been warned that we need to take steps to reduce greenhouse gases in the air if we have any chance of fighting global warming. Living a greener life is a way to help. Does that mean we need to get rid of convenience?

One thing that makes our lives easier is using paper towels. They help us clean messes quickly. We've been encouraged, however, to stop using this product. It's been accused of being harmful to the environment. Other options have been presented, but they aren't better.

Take cloth towels and napkins, for example. They can be cleaned and reused. The energy and resources needed to wash them is a problem, though. Hot water, electricity, and detergent all cost money and have their own negative effects. Also, some microfiber cloths are made from petroleum-based polymers. Each time you wash these cloths, microplastics that never break down are released. They make their way into our water and pollute it. Paper towels, on the other hand, break down in 2-6 weeks in landfills, and they do not add microplastics to our water.

Another difficulty with using cloth towels is they are exposed to wet, humid conditions. They also absorb unpleasant substances when they are used to wipe up messes. This creates a breeding ground for nasty bacteria and mold. Without proper disinfecting, you could spread that bacteria and mold every time you swipe that dirty cloth along a surface. Sponges create the same problems. Illness could be caused by using infected cloths and sponges instead of paper towels.

Sometimes paper towels are just the right tool for the job. When it comes to cleaning up substances such as grease and oil, a paper towel is the way to go. A cloth towel would only become stained and have to be thrown away. It would take longer than a paper towel to break down in a landfill, too.

Paper towels aren't so horrible. They make our lives easier and more sanitary. There are worse causes of global warming and climate change than cleaning up spills with handy and germ-free paper towels. We need to focus our energy on solving the bigger problems.

And unfortunately, recycling paper towels isn't an option because they can't be cleaned.

Paper towels can be composted, but not if they are bleached or too soiled. In addition, paper towels aren't just made of wood pulp. They have chemicals, such as dyes, in them to make them white and sturdy. These chemicals are harmful to humans and the environment over time.

The good news is that we don't have to use paper towels. We have other choices that are healthier for the planet and humans. Cloth towels are cheap and convenient. They can be used, washed, and reused. Natural sea sponges are another possibility. One of these sponges can replace about 3,000 paper towel sheets! If you simply must use paper towels, try using ones that are unbleached or made from recycled paper. At the very least, make an effort to use fewer paper towels overall.

oxide with fewer cows. That means less methane, another greenhouse gas, is being produced.

Improvements in breeding and nutrition make this possible.

Studies show avoiding meat altogether isn't the answer. Moving to other kinds of diets may do more harm than good. Cattle, sheep, and goat meat make greenhouse gas, but so do dairy products. Any major changes in how we eat could also keep our bodies from getting what they need to stay as healthy as possible. This could cause illnesses.

A better idea would be to decrease the amount of red meat we eat, but not quit it completely. You don't have to stop being a carnivore to save the planet.

plant-based options nowadays. Food companies have developed products that look like meat but are made from plants instead and often taste as good as real red meat.

Humans must make better decisions. We need to eat things that don't further harm our planet. Saying no to meat will allow us to say yes to fighting global warming.

Global warming is
Making just one hambur
billion hamburgers each
gas than foods such as
hamburgers is to stop e

Raising animals such as cattle and sheep requires large pieces of cleared land. About 260 million acres are used for these purposes. The loss of tropical forests is becoming endangered on the air. More carbon dioxide is released by clearing this land. This release

These animals also
meat. Producing wheat,

More and more people are realizing that something is happening. Glaciers are melting, sea levels are rising, and the atmosphere is warming. The solution is to stop eating meat, but that's not always easy.

There are bigger problems. Transportation causes 27% of the greenhouse gases caused by making energy. Getting pigs to eat, however, is only 1% of the greenhouse gases from animals for food. You'd be better off eating steak dinner.

In the past, beef production is friendlier to the forests and the wildlife living in the area. It takes less water to make one pound of beef than it does to make one pound of chicken.

does
oxide

with fewer cows. That means less methane, another greenhouse gas, is being produced.

Improvements in breeding and nutrition make this possible.

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Graphic Organizers

name: _____ date: _____

RESEARCH ORGANIZER

Topic: _____

Benefits or positive effects of this specific topic: _____

Disadvantages or negative effects of this specific topic: _____

from reliable sources. Gather evidence, not opinions.

EXAMPLE ARGUMENT

opposed to the use of plastic

TOPIC: _____

The use of plastic

MAIN IDEA: _____

The use of plastic is harmful to the environment, animals, and humans. In order to decrease the production of plastic, we need to refuse to use it.

STANCE (PRO/CON/OTHER):

CON- opposed to the use of plastic

TALKING POINTS:

talking point #1: _____

specific evidence to support talking point #1:

- 8 million tons of plastic end up in oceans every single year.
- Plastic survives in the environment for hundreds of years and doesn't decompose.

OPPOSING VIEWS:

opposing view #1: _____

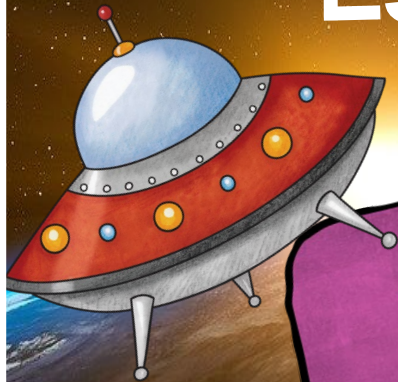
Plastic negatively impacts the environment.



4th Grade Math

Earth Day Alien Rescue

Escape Room



Print & Digital



Greetings, Earthlings!

My comrades and I have traveled from far, far away in our spaceship to help your planet. We hear you haven't been taking care of it properly! But now, four of my crew have gotten stuck in your planet's pollution.

Can you help my fellow aliens escape the pollution?

Crew members to help:

1. Commander Glibnar
2. Petty Officer Globnix
3. Lieutenant Ipsix
4. Exploration Officer Fibrar

After each challenge, put the alien back in the spaceship!



Print & Digital Options

Printable Directions



Materials:

- Printed cards for each team
- Computer or Tablet for Videos (optional)
- Scrap Paper (optional)

Duration: Approximately 90 minutes. You can also split this up into activities over four days, having students complete one challenge per day.

Prep: Print challenge cards and recording sheets for each team and envelopes.

Directions:

1. Split your class into teams of 4-5 students. Ensure teams are balanced.
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. (Optional) Teacher may show completion certificates.
5. The first team to complete all four challenges receives the Castle Certificate.
6. Assign "oops" cards to help create equity. Give students a lead, to encourage them to step back and give up.

Digital Directions

Materials:

- Google Slides link for each student
- Google Sheets link for each student



Duration: Approximately two sixty-minute sessions. You can also split this up into four 20-minute activities, having students complete one challenge per day.

Directions

Assign your students the Google Slides and Google Sheets Digital Room challenge. Students work through each challenge in the slides. Students input their code into the Google Sheet to self-check their answers. The Google Sheet will prompt students to check their work and move forward to the next challenge. Complete all four challenges to receive your Escape from the Castle Certificate.

Print Friendly Version

Challenge #1



1. Solve each multiplication or division problem.
2. Record answers on your brochure.
3. Check your answers in the Alien Rescue Decoder.
4. Put Commander Glibnar in the spaceship.
5. Scan the QR code in the corner of the next page.
6. Move on to challenge #2.

1. Smog City has lots of factories and, as a result, it is very smoggy. There are 8 automobile factories in Smog City. There are 6 times as many electronics factories as automobile factories. How many factories are there in total?

- a. 48 factories
- b. 56 factories
- c. 40 factories
- d. 62 factories

2. The petroleum refining plant in Smog City is made up of 7 different buildings. There are 28 smokestacks in total in the plant. If each building has an equal number of smokestacks, how many smokestacks are on each building?

- a. 3 smokestacks
- b. 4 smokestacks
- c. 5 smokestacks
- d. 8 smokestacks

3. None of the residents of Smog City walk, bike, or take public transportation. They all drive their own cars. Commander Glibnar sees 39 cars drive by in Smog City. There are 12 blue cars and an equal number of red cars. How many yellow cars are there?

Challenge #2



1. Solve each place value problem.
2. Record answers on your brochure.
3. Check your answers in the Alien Rescue Decoder.
4. Put Petty Officer Globnix in the spaceship.
5. Scan the QR code in the corner of the next page.
6. Move on to challenge #3.

1. An oil tanker ran ashore on a coral reef causing many of its oil barrels to fall into the ocean! The number comparison below compares the number of barrels that fell into the water to the number of barrels that stayed on the ship. Which symbol correctly completes the number comparison?

4,632 ? 3,956
number of barrels in the water number of barrels on the ship

- a. <
- b. >
- c. =
- d. +

2. A bunch of volunteers have come to the beach to help clean up the oil spill. There are 256 volunteers in total. Which of the options below correctly shows the number of volunteers in expanded form?

- a. $2 + 5 + 6$
- b. $20 + 50 + 6$
- c. $200 + 56$
- d. $200 + 50 + 6$

3. Petty Officer Globnix descends from the spaceship to observe the clean-up. When Officer Globnix lands, 13,039 gallons of oil have already leaked into the water. Which statement correctly describes the relationship between the underlined digits below?

13,039

- a. The left 3 is 100 times greater than the right 3
- b. The left 3 is 10 times less than the right 3
- c. The left 3 is 1,000 times greater than the right 3
- d. The left 3 is 10 times greater than the right 3

Digital Webscape™ & Google Slides



Challenge #1

Click on each clue and answer the questions. Answer carefully, because the right answers will give you the clues to solve the challenge!

Where was Commander Glibnar hiding?



Clue #1



Clue #2



Clue #3



Clue #4



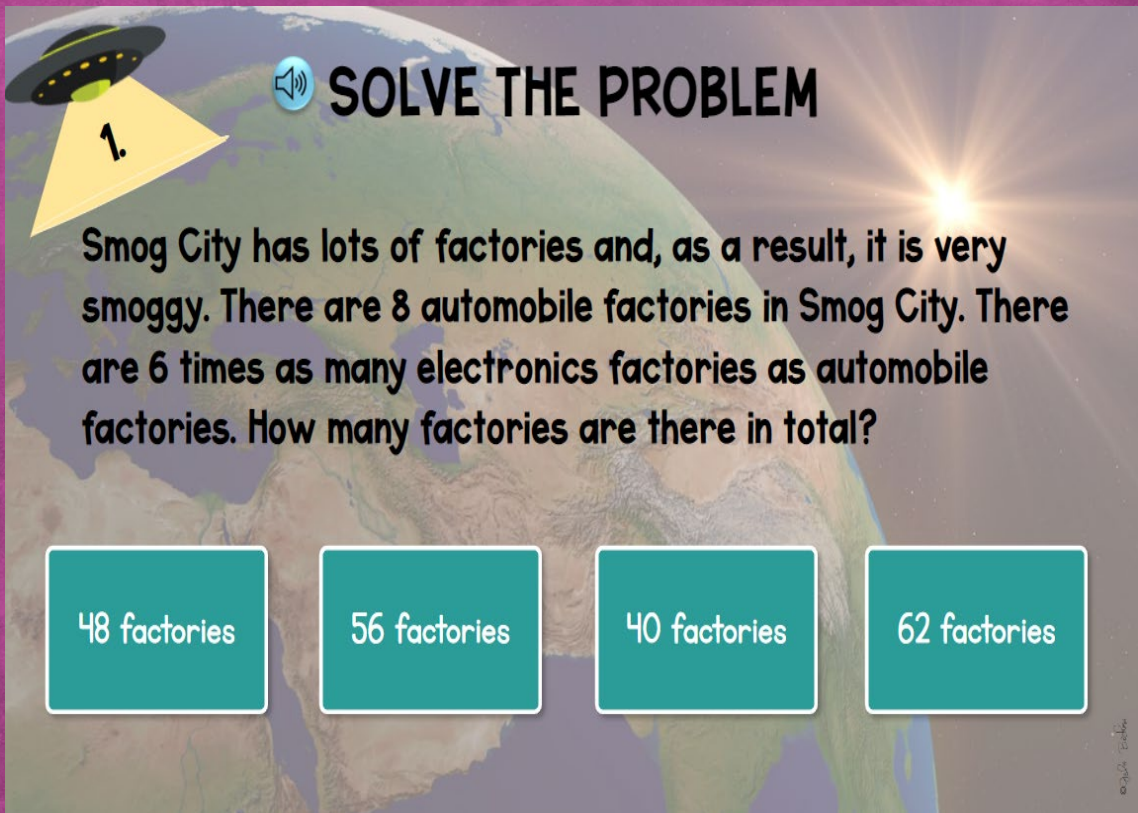
Clue #5



Clue #6

Submit

Webscape™ is Interactive & Self-Correcting!



1.

SOLVE THE PROBLEM

Smog City has lots of factories and, as a result, it is very smoggy. There are 8 automobile factories in Smog City. There are 6 times as many electronics factories as automobile factories. How many factories are there in total?

48 factories 56 factories 40 factories 62 factories

Webscape™ Includes Audio Option!



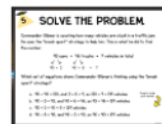
Videos Tell the Story



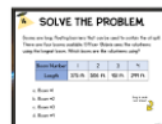
4 Standards-Based Math Challenges

EARTH DAY ALIEN RESCUE

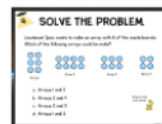
1. Challenge #1: Solve the addition and subtraction problems to save Commander Glibnar.



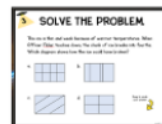
2. Challenge #2: Solve the place value problems to help Petty Officer Globnix.



3. Challenge #3: Solve the problems with arrays to evacuate Lieutenant Ipsix.



4. Challenge #4: Solve the geometry problems to rescue Exploration Officer Fiblar.



©2018 Bobbs

Challenges are Quick



SOLVE THE PROBLEM.

Booms are long, floating barriers that can be used to contain the oil spill. There are four booms available. When rounded to the nearest hundred, which two booms are the same length?

Boom Number	1	2	3	4
Length	1,914 ft.	1,965 ft.	2,071 ft.	2,049 ft.

- a. Booms #1 and 3
- b. Booms #2 and #4
- c. Boom #2 and 3
- d. Boom #1 and 2

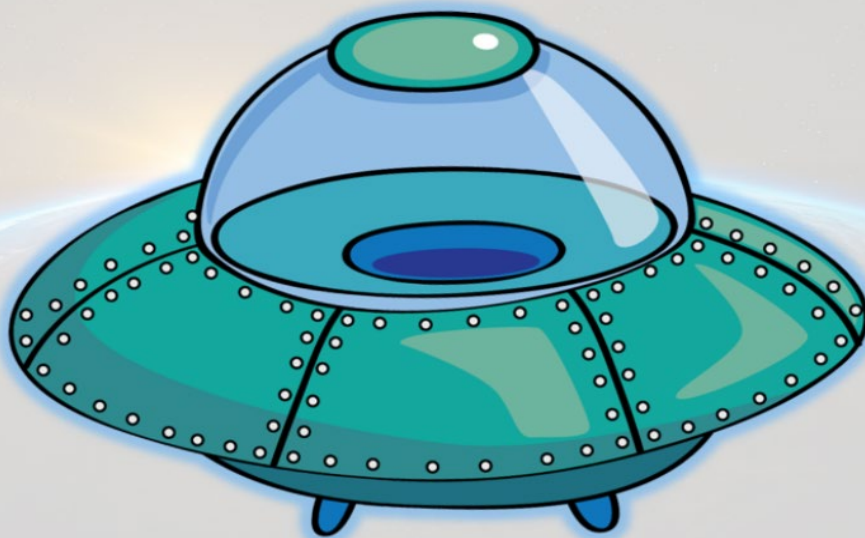
Drag to circle
your answer



©2015 Fisher

Interactive

After each challenge, cut out the alien (Ctrl + X)
and paste them (Ctrl + V) into this spaceship.
Can you rescue all four aliens?



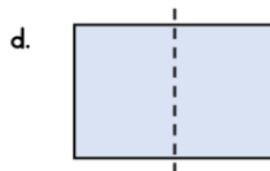
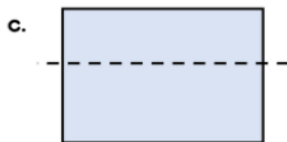
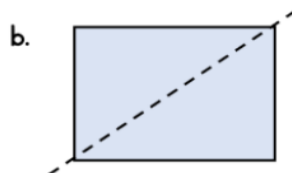
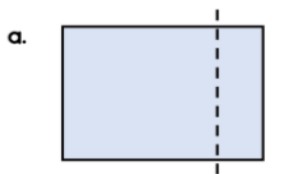
Variety of Skills



3

SOLVE THE PROBLEM.

The ice is thin and weak because of warmer temperatures. When Officer Fiblar touches down, the chunk of ice breaks along a line of symmetry. Which diagram shows how the ice might have broken?



Drag to circle
your answer



©2010 Peter

Google Slides Prompt Students to use Decoder



CAN YOU RESCUE PETTY OFFICER GLOBNIX?

Enter your answers into the decoder to see if you can
clean the oil off Officer Globnix.



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

©2016 Fisher

Decoder in Digital Version is Self-Checking

Earth Day Math Alien Rescue Escape Room Decoding Tool

File Edit View Insert Format Data Tools Extensions Help Last edit was made on March 16 by Patrick Mateo

100% \$ % 0.00 123 Verdana 16 B I A

Question #	1	2	3	4	5	6
Your Answers						
Where was Commander Glibnar hiding?	A B C D					

KEEP LOOKING! DO NOT MOVE ON TO THE NEXT SLIDE.

Challenge 1 - Save Commander Glibnar! Challenge 2 - Help Petty Officer Globnxi! Challenge 3 - Evacuate Lieutenant Ipsix! Challenge 4 - Rescue Exploration Officer Fiblar!

Printable Version

Includes "Ooops!"

Challenges



Printable Version

Includes Recording

Brochure & Decoder

 **Alien Rescue 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 = We were b = He was c = He had d = There was	a = going b = hiding c = into d = called	a = near b = because c = among d = underneath	a = when the b = smokesack c = pollution d = a pile	a = of old b = to his c = when the d = since	a = factory b = spaceship c = times d = windows	
a = He was b = With a c = First you d = Not until	a = water b = cleaning c = him d = toothbrush	a = dish soap b = volunteer c = oil spill d = walks	a = because b = and c = washing d = but then	a = a little b = sometimes c = lots of d = he goes	a = all for b = on it c = bar d = at	
a = Beam b = Send c = Take him d = Before you	a = waste barrel b = in the c = him d = tunnel	a = take b = up c = because d = until	a = underground b = radioactive c = chasing d = into	a = the b = out c = help him d = running		
a = Take him b = Quickly c = Throw him d = The water	a = cold b = icy c = a pool float d = polar bear	a = until b = rectangle c = because I d = so he	a = afterwards b = can c = float d = breaks apart	a = tower b = first c = on it d = at		

CHALLENGE 1 

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

CHALLENGE 2

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

How can you clean all the oil off Petty Officer Globnix?

Where was Commander Glibnar hiding?



CHALLENGE 3 

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

How can you help Lieutenant Ipsix escape from the nuclear plant?