Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Crystals Exp.-

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe/  notes | CHOICE Spoken script | No Choice Spoken Script | Slide/keyframe/  notes |
|  | Within the area of, **physical and chemical changes***,* please select a topic by clicking on a picture below. | Within the area of **physical and chemical changes***,* we will select the topic crystal growth.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the  amount of crystal growth on a string in water. You can test one of these variables in your experiment.  Water temperature  The type of crystals  The initial amount of crystals on the string  And the type of string | Below are some variables that might affect the  amount of crystal growth on a string in water. We can test one of these variables in the experiment.  Water temperature  The type of crystals  The initial amount of crystals on the string  And the type of string |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A glass jar  A calendar  A pencil  String  Distilled water  Crystals and a digital scale. | Here are all of the materials that may be necessary for this experiment:  A glass jar  A calendar  A pencil  String  Distilled water  Crystals and a digital scale. |  |
|  | We will mix a crystal salt or sugar in water so it dissolves. | We will mix a crystal salt or sugar in water so it dissolves. |  |
|  | We will continue to add the crystals and mix until not more crystals can be dissolved in the water. This is the saturation point. | We will continue to add the crystals and mix until not more crystals can be dissolved in the water. This is the saturation point. |  |
|  | Then we will put a string in the water. | Then we will put a string in the water. |  |
|  | We can measure the weight of the crystal growth after two weeks. | We can measure the weight of the crystal growth after two weeks. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the **amount of crystal growth on a string in water. These are the four variables you can test in this experiment: The water temperature which can be cool.** | In this experiment, there are only four things we can change. Any of these might make a difference in the **amount of crystal growth on a string in water. These are the four variables we can test in this experiment: The water temperature which can be cool.** |  |
|  | Or hot might make a difference. | Or hot might make a difference. |  |
|  | The type of crystal which can be salt | The type of crystal which can be salt |  |
|  | Or brown sugar might make a difference. | Or brown sugar might make a difference. |  |
|  | The initial amount of crystals on the string which can be none | The initial amount of crystals on the string which can be none |  |
|  | Or some might make a difference. | Or some might make a difference. |  |
|  | And the type of string which can be twine | And the type of string which can be twine |  |
|  | Or yarn. This might also make a difference. | Or yarn. This might also make a difference. |  |
|  | Select the variable you would like to test.  This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below. | This frame/slide acts differently than the choice version. |
|  | <water temperature> The research question you have chosen is: Does the water temperature affect the weight of the crystal growth on a string in water after two weeks? | <water temperature> Our research question is: Does the water temperature affect the weight of the crystal growth on a string in water after two weeks? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the water temperature affect the weight of the crystal growth on the string in water after two weeks? | OK!  We have chosen the following Research Question:  Does the water temperature affect the weight of the crystal growth on the string in water after two weeks? |  |
|  | <type of crystals> The research question you have chosen is: Does the type of crystal affect the weight of the crystal growth on a string in water after two weeks? | <type of crystals> Our research question is: Does the type of crystal affect the weight of the crystal growth on a string in water after two weeks? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of crystal affect the weight of the crystal growth on the string in water after two weeks? | OK!  We have chosen the following Research Question:  Does the type of crystal affect the weight of the crystal growth on the string in water after two weeks? |  |
|  | <initial amount of crystals on the string> The research question you have chosen is: Does the initial amount of crystals on the string affect the weight of the crystal growth on a string in water after two weeks? | <initial amount of crystals on the string> Our research question is: Does the initial amount of crystals on the string affect the weight of the crystal growth on a string in water after two weeks? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the initial amount of crystals on the string affect the weight of the crystal growth on the string in water after two weeks? | OK!  We have chosen the following Research Question:  Does the initial amount of crystals on the string affect the weight of the crystal growth on the string in water after two weeks? |  |
|  | <type of string> The research question you have chosen is: Does the type of string affect the weight of the crystal growth on a string in water after two weeks? | <type of string> Our research question is: Does the type of string affect the weight of the crystal growth on a string in water after two weeks? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of string affect the weight of the crystal growth on the string in water after two weeks? | OK!  We have chosen the following Research Question:  Does the type of string affect the weight of the crystal growth on the string in water after two weeks? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Soda Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken Script | No Choice Spoken Script | Slide/keyframe |
|  | Within the area of , **physical and chemical changes***,* please select a topic by clicking on a picture below. | Within the area of, **physical and chemical changes***,* we will select the topic soda/mint reactions.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the reaction between soda and mints. You can test one of these variables in your experiment.  The type of sweetener in the soda  The amount of caffeine in the soda  The surface area of the mint  And the amount of carbon dioxide in the soda. | Below are some variables that might affect the reaction between soda and mints. We can test one of these variables in the experiment.  The type of sweetener in the soda  The amount of caffeine in the soda  The surface area of the mint  And the amount of carbon dioxide in the soda. |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A mint, a bottle of soda and a ruler. | Here are all of the materials that may be necessary for this experiment:  A mint, a bottle of soda and a ruler. |  |
|  | We will put a single mint into a bottle of soda. | We will put a single mint into a bottle of soda. |  |
|  | Bubbles forming a soda geyser may come out of the bottle. | Bubbles forming a soda geyser may come out of the bottle. |  |
|  | We can measure the height of the soda geyser. | We can measure the height of the soda geyser. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the **reaction between the soda and mint. These are the four variables you can test in this experiment: The type of sweetener which can be sugar** | In this experiment, there are only four things we can change. Any of these might make a difference in the **reaction between the soda and mint. These are the four variables we can test in this experiment: The type of sweetener which can be sugar** |  |
|  | Or aspartame might make a difference. | Or aspartame might make a difference. |  |
|  |  |  |  |
|  |  |  |  |
|  | The amount of caffeine in the soda which can be some, | The amount of caffeine in the soda which can be some, |  |
|  | Or none might make a difference. | Or none might make a difference. |  |
|  | The surface texture of the mint, which can be rough, | The surface texture of the mint, which can be rough, |  |
|  | Or smooth might make a difference. | Or smooth might make a difference. |  |
|  | And the amount of carbon dioxide in the soda which can be higher | And the amount of carbon dioxide in the soda which can be higher |  |
|  | Or lower. This might also make a difference. | Or lower. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below. | This frame/slide acts differently than the choice version. |
|  | <type of sugar > The research question you have chosen is: Does the type of sweetener in the soda affect the strength  of the reaction between soda and mints? | <type of sugar > Our research question is: Does the type of sweetener in the soda affect the strength  of the reaction between soda and mints? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of sweetener in the soda affect the strength  of the reaction between soda and mints? | OK!  We have chosen the following Research Question:  Does the type of sweetener in the soda affect the strength  of the reaction between soda and mints? |  |
|  | <type of crystals> The research question you have chosen is: Does the type of crystal in the soda affect the strength  of the reaction between soda and mints? | <type of crystals> Our research question is: Does the type of crystal in the soda affect the strength  of the reaction between soda and mints? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of crystal in the soda affect the strength  of the reaction between soda and mints? | OK!  We have chosen the following Research Question:  Does the type of crystal in the soda affect the strength  of the reaction between soda and mints? |  |
|  | <surface texture of the mint> The research question you have chosen is: Does the surface texture of the mint affect the strength of the reaction between soda and mints? | <surface texture of the mint> Our research question is: Does the surface texture of the mint affect the strength of the reaction between soda and mints? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the surface texture of the mint affect the strength of the reaction between soda and mints? | OK!  We have chosen the following Research Question:  Does the surface texture of the mint affect the strength of the reaction between soda and mints? |  |
|  | <amount of carbon dioxide in the soda> The research question you have chosen is: Does the amount of carbon dioxide in the soda affect the strength of the reaction between soda and mints? | <amount of carbon dioxide in the soda> Our research question is: Does the amount of carbon dioxide in the soda affect the strength of the reaction between soda and mints? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of carbon dioxide in the soda affect the strength of the reaction between soda and mints? | OK!  We have chosen the following Research Question:  Does the amount of carbon dioxide in the soda affect the strength of the reaction between soda and mints? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Ice Melting Exp

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken script | No Choice Spoken Script | Slide/keyframe |
|  | Within the area, **heat and temperature***,* please select a topic by clicking on a picture below. | Within the area of, **heat and temperature***,* we will select the topic ice melting time.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the time it takes for an ice cube to melt in water. You can test one of these variables in your experiment.  The initial temperature of the ice cube  The initial temperature of the water  The pattern on the glass  And the shape of the glass. | Below are some variables that might affect the time it takes for an ice cube to melt in water. We can test one of these variables in the experiment.  The initial temperature of the ice cube  The initial temperature of the water  The pattern on the glass  And the shape of the glass. |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A thermometer  Glass cups  Ice cubes and ice bucket  Water  And a digital clock. | Here are all of the materials that may be necessary for this experiment:  A thermometer  Glass cups  Ice cubes and ice bucket  Water  And a digital clock. |  |
|  | We will place an ice cube in a glass filled with 237 milliliters  of water. | We will place an ice cube in a glass filled with 237 milliliters  of water. |  |
|  | The ice cube will eventually completely melt. | The ice cube will eventually completely melt. |  |
|  | We can measure the time it takes for the ice cube to  melt in water. | We can measure the time it takes for the ice cube to  melt in water. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the **time it takes for the ice cube to melt in water. These are the four variables you can test in this experiment: the initial temperature of the ice cube which can be zero degrees Celsius** | In this experiment, there are only four things we can change. Any of these might make a difference in the **time it takes for the ice cube to melt in water. These are the four variables we can test in this experiment: the initial temperature of the ice cube which can be zero degrees Celsius** |  |
|  | Or negative twenty degrees Celsius might make a difference. | Or negative twenty degrees Celsius might make a difference. |  |
|  | The initial temperature of the water which can be cold | The initial temperature of the water which can be cold |  |
|  | Or hot might make a difference. | Or hot might make a difference. |  |
|  | The pattern on the glass which can be striped | The pattern on the glass which can be striped |  |
|  | Or plain might make a difference. | Or plain might make a difference. |  |
|  | And the shape of the glass which can be shorter or | And the shape of the glass which can be shorter or |  |
|  | Taller. This might also make a difference. | Taller. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below | This frame/slide acts differently than the choice version. |
|  | <the initial temperature of the ice cube> The research question you have chosen is: Does the initial temperature of the ice cube affect the time it takes for an ice cube to melt in water? | <the initial temperature of the ice cube> Our research question is: Does the initial temperature of the ice cube affect the time it takes for an ice cube to melt in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the initial temperature of the ice cube affect the time it takes for an ice cube to melt in water? | OK!  We have chosen the following Research Question:  Does the initial temperature of the ice cube affect the time it takes for an ice cube to melt in water? |  |
|  | <initial temperature of the water> The research question you have chosen is: Does the initial temperature of the water affect the time it takes for an ice cube to melt in water? | <initial temperature of the water> Our research question is: Does the initial temperature of the water affect the time it takes for an ice cube to melt in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the initial temperature of the water affect the time it takes for an ice cube to melt in water? | OK!  We have chosen the following Research Question:  Does the initial temperature of the water affect the time it takes for an ice cube to melt in water? |  |
|  | <pattern on the glass > The research question you have chosen is: You have chosen as your Research Question:  Does the pattern on the glass affect the time it takes for an ice cube to melt in water? | <pattern on the glass > Our research question is: You have chosen as your Research Question:  Does the pattern on the glass affect the time it takes for an ice cube to melt in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the pattern on the glass affect the time it takes for an ice cube to melt in water? | OK!  We have chosen the following Research Question:  Does the pattern on the glass affect the time it takes for an ice cube to melt in water? |  |
|  | <shape of the glass> The research question you have chosen is: Does the shape of the glass affect the time it takes for an ice cube to melt in water? | <shape of the glass> Our research question is: Does the shape of the glass affect the time it takes for an ice cube to melt in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the shape of the glass affect the time it takes for an ice cube to melt in water? | OK!  We have chosen the following Research Question:  Does the shape of the glass affect the time it takes for an ice cube to melt in water? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Balloon Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice-Spoken script | No- Choice Spoken Script | Slide/keyframe |
|  | Within the area, **heat and temperature***,* please select a topic by clicking on a picture below. | Within the area of, **heat and temperature***,* we will select the topic temperature of a gas.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the temperature of gas in a balloon. You can test one of these variables in your experiment.  The color of the balloon  The material the balloon is made of  The amount of sunlight exposure the balloon gets  The type of chair the balloon is tied to. | Below are some variables that might affect the temperature of gas in a balloon. We can test one of these variables in the experiment.  The color of the balloon  The material the balloon is made of  The amount of sunlight exposure the balloon gets  The type of chair the balloon is tied to. |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A balloon  A wireless temperature reader and sensor  A chair  A stopwatch  A helium tank  And an umbrella | Here are all of the materials that may be necessary for this experiment:  A balloon  A wireless temperature reader and sensor  A chair  A stopwatch  A helium tank  And an umbrella |  |
|  | We will pump 5 grams of Helium at 15 degrees Celsius into a balloon. | We will pump 5 grams of Helium at 15 degrees Celsius into a balloon. |  |
|  | Then we will place the balloon outside for 30 minutes. | Then we will place the balloon outside for 30 minutes. |  |
|  | The temperature of the outside air is 27 degrees Celsius. | The temperature of the outside air is 27 degrees Celsius. |  |
|  | We can measure the temperature of the gas after 30 minutes. | We can measure the temperature of the gas after 30 minutes. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the **temperature of gas in the balloon. These are the four variables you can test in this experiment. The color of the balloon, which can be lighter.** | In this experiment, there are only four things we can change. Any of these might make a difference in the **temperature of gas in the balloon. These are the four variables we can test in this experiment. The color of the balloon, which can be lighter.** |  |
|  | Or darker might make a difference. | Or darker might make a difference. |  |
|  | The material the balloon is made of which can be foil | The material the balloon is made of which can be foil |  |
|  | Or latex might make a difference. | Or latex might make a difference. |  |
|  | The amount of sunlight exposure the balloon gets, which can be full sun | The amount of sunlight exposure the balloon gets, which can be full sun |  |
|  | Or shade might make a difference. | Or shade might make a difference. |  |
|  | And the type of chair the balloon is tied to, which can be a wooden chair | And the type of chair the balloon is tied to, which can be a wooden chair |  |
|  | Or a canvas chair. This might also make a difference. | Or a canvas chair. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below | This frame/slide acts differently than the choice version. |
|  | <color of the balloon > The research question you have chosen is: Does the color of the balloon affect the gas temperature  within the balloon after 30 minutes? | <color of the balloon > Our research question is: Does the color of the balloon affect the gas temperature  within the balloon after 30 minutes? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the color of the balloon affect the gas temperature  within the balloon after 30 minutes? | OK!  We have chosen the following Research Question:  Does the color of the balloon affect the gas temperature  within the balloon after 30 minutes? |  |
|  | <material the balloon is made of> The research question you have chosen is: Does material the balloon is made of affect the gas temperature  within the balloon after 30 minutes? | <material the balloon is made of> Our research question is: Does material the balloon is made of affect the gas temperature  within the balloon after 30 minutes? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does material the balloon is made of affect the gas temperature  within the balloon after 30 minutes? | OK!  We have chosen the following Research Question:  Does material the balloon is made of affect the gas temperature  within the balloon after 30 minutes? |  |
|  | <amount of sunlight exposure > The research question you have chosen is: You have chosen as your Research Question:  Does the amount of sunlight exposure the balloon gets  affect the gas temperature within the balloon after 30 minutes? | <amount of sunlight exposure > Our research question is:  Does the amount of sunlight exposure the balloon gets  affect the gas temperature within the balloon after 30 minutes? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of sunlight exposure the balloon gets  affect the gas temperature within the balloon after 30 minutes? | OK!  We have chosen the following Research Question:  Does the amount of sunlight exposure the balloon gets  affect the gas temperature within the balloon after 30 minutes? |  |
|  | <type of chair> The research question you have chosen is: Does the type of chair the balloon is tied to  affect the gas temperature within the balloon after 30 minutes? | <type of chair> Our research question is: Does the type of chair the balloon is tied to  affect the gas temperature within the balloon after 30 minutes? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of chair the balloon is tied to  affect the gas temperature within the balloon after 30 minutes? | OK!  We have chosen the following Research Question:  Does the type of chair the balloon is tied to  affect the gas temperature within the balloon after 30 minutes? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Ramps Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken script | No Choice Spoken Script | Slide/keyframe |
|  | Within the area, **forces and motion***,* please select a topic by clicking on a picture below. | Within the area of, **forces and motion***,* we will select the topic the speed of balls at the bottom of ramps.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the speed of balls at the bottom of ramps. You can test one of these variables in your experiment.  The Slope of the Ramp  The Color of the Ball  The Starting Position of the Ball  The Surface Texture of the Ramp | Below are some variables that might affect the speed of balls at the bottom of ramps. We can test one of these variables in the experiment.  The Slope of the Ramp  The Color of the Ball  The Starting Position of the Ball  The Surface Texture of the Ramp |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A speedometer  A ramp  And a ball | Here are all of the materials that may be necessary for this experiment:  A speedometer  A ramp  And a ball |  |
|  | We will place a ball on the ramp. | We will place a ball on the ramp. |  |
|  | The ball will roll down the ramp. | The ball will roll down the ramp. |  |
|  | We will measure the balls speed at the bottom of the ramp. | We will measure the balls speed at the bottom of the ramp. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the speed of the ball at the bottom of the ramp. **These are the four variables you can test in this experiment. The slope of the ramp, which can be steep,** | In this experiment, there are only four things we can change. Any of these might make a difference in the speed of the ball at the bottom of the ramp. **These are the four variables we can test in this experiment. The slope of the ramp, which can be steep,** |  |
|  | Or not steep might make a difference. | Or not steep might make a difference. |  |
|  | The color of the ball which can be yellow | The color of the ball which can be yellow |  |
|  | Or pink might make a difference. | Or pink might make a difference. |  |
|  | The starting position of the ball, which can be higher | The starting position of the ball, which can be higher |  |
|  | Or lower might make a difference. | Or lower might make a difference. |  |
|  | And the surface texture of the ramp, which can be rough | And the surface texture of the ramp, which can be rough |  |
|  | Or smooth. This might also make a difference. | Or smooth. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below | This frame/slide acts differently than the choice version. |
|  | <slope of the ramp > The research question you have chosen is: Does the slope of the ramp affect the speed of the ball  at the bottom of the ramp? | <slope of the ramp > Our research question is: Does the slope of the ramp affect the speed of the ball  at the bottom of the ramp? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the slope of the ramp affect the speed of the ball  at the bottom of the ramp? | OK!  We have chosen the following Research Question:  Does the slope of the ramp affect the speed of the ball  at the bottom of the ramp? |  |
|  | <color of the ball> The research question you have chosen is: Does the color of the ball affect the speed of the ball at the bottom of the ramp? | <color of the ball> Our research question is: Does the color of the ball affect the speed of the ball at the bottom of the ramp? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the color of the ball affect the speed of the ball at the bottom of the ramp? | OK!  We have chosen the following Research Question:  Does the color of the ball affect the speed of the ball at the bottom of the ramp? |  |
|  | <starting position of the ball> The research question you have chosen is: Does the starting position of the ball affect the speed of the ball at the bottom of the ramp? | <starting position of the ball> Our research question is: Does the starting position of the ball affect the speed of the ball at the bottom of the ramp? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the starting position of the ball affect the speed of the ball at the bottom of the ramp? | OK!  We have chosen the following Research Question:  Does the starting position of the ball affect the speed of the ball at the bottom of the ramp? |  |
|  | <surface texture of the ramp> The research question you have chosen is: Does the surface texture of the ramp affect the speed of the ball at the bottom of the ramp? | <surface texture of the ramp> Our research question is: Does the surface texture of the ramp affect the speed of the ball at the bottom of the ramp? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the surface texture of the ramp affect the speed of the ball at the bottom of the ramp? | OK!  We have chosen the following Research Question:  Does the surface texture of the ramp affect the speed of the ball at the bottom of the ramp? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Sinking Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken script | No Choice Spoken script | Slide/keyframe |
|  | Within the area, **forces and motion***,* please select a topic by clicking on a picture below. | Within the area of, **forces and motion***,* we will select the topic the time for objects to sink.  Please click the highlighted  picture below. | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the time it takes  for objects to sink in water. You can test  one of these variables in your experiment.  Density of the Water  Shape of the Object  Volume of the Object  Density of the Object | Below are some variables that might affect the time it takes  for objects to sink in water. We can test  one of these variables in your experiment.  Density of the Water  Shape of the Object  Volume of the Object  Density of the Object |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A stopwatch  A lead or glass object  A graduated cylinder  And water | Here are all of the materials that may be necessary for this experiment:  A stopwatch  A lead or glass object  A graduated cylinder  And water |  |
|  | We will place an object into a graduated cylinder filled with water. | We will place an object into a graduated cylinder filled with water. |  |
|  | It will sink to the bottom. | It will sink to the bottom. |  |
|  | We can measure the time it takes for the object to sink in water. | We can measure the time it takes for the object to sink in water. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the time of it takes for objects to sink in water. **These are the four variables you can test in this experiment. The density of the water, which can be lower** | In this experiment, there are only four things we can change. Any of these might make a difference in the time of it takes for objects to sink in water. **These are the four variables we can test in this experiment. The density if the water, which can be lower** |  |
|  | Or higher might make a difference. | Or higher might make a difference. |  |
|  | The shape of the object which can be a sphere | The shape of the object which can be a sphere |  |
|  | Or tear-shaped might make a difference. | Or tear-shaped might make a difference. |  |
|  | The volume of the object which can be smaller | The volume of the object which can be smaller |  |
|  | Or larger might make a difference. | Or larger might make a difference. |  |
|  | And the density of the object which can be higher | And the density of the object which can be higher |  |
|  | Or lower. This might also make a difference. | Or lower. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below | This frame/slide acts differently than the choice version. |
|  | <densityofwater > The research question you have chosen is: Does the density of water affect the time it takes for an object to sink in water? | <densityofwater > Our research question is: Does the density of water affect the time it takes for an object to sink in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the density of water affect the time it takes for an object to sink in water? | OK!  We have chosen the following Research Question:  Does the density of water affect the time it takes for an object to sink in water? |  |
|  | <shapeofobject> The research question you have chosen is: Does the shape of the object affect the time it takes for  objects to sink in water? | <shapeofobject> Our research question is: Does the shape of the object affect the time it takes for  objects to sink in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the shape of the object affect the time it takes for  objects to sink in water? | OK!  We have chosen the following Research Question:  Does the shape of the object affect the time it takes for  objects to sink in water? |  |
|  | <volumeofobject> The research question you have chosen is: Does the volume of the object affect the time it takes for objects to sink in water? | <volumeofobject> Our research question is: Does the volume of the object affect the time it takes for objects to sink in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the volume of the object affect the time it takes for objects to sink in water? | OK!  We have chosen the following Research Question:  Does the volume of the object affect the time it takes for objects to sink in water? |  |
|  | <densityof object > The research question you have chosen is: Does the density of the object affect the time it takes for objects to sink in water? | <densityof object > Our research question is: Does the density of the object affect the time it takes for objects to sink in water? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the density of the object affect the time it takes for objects to sink in water? | OK!  We have chosen the following Research Question:  Does the density of the object affect the time it takes for objects to sink in water? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Sunflower/Greenhouse Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken script | No Choice Spoken Script | Slide/keyframe |
|  | Within the area, **Plant Growth***,* please select a topic by clicking on a picture below. | Within the area of P**lant growth***,* we will select the topic flower reproduction.  Please click the highlighted  picture below | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the number of seeds produced by flowers in a greenhouse. You can test  one of these variables in your experiment.  The Number of honey bees in the greenhouse  The Amount of sunlight the greenhouse lets in  The Amount of Fertilizer  The Type of Water | Below are some variables that might affect the number of seeds produced by flowers in a greenhouse. We can test  one of these variables in your experiment.  The Number of honey bees in the greenhouse  The Amount of sunlight the greenhouse lets in  The Amount of Fertilizer  The Type of Water |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A greenhouse  Twelve sunflower plants  A beehive with bees  Fertilizer  And water. | Here are all of the materials that may be necessary for this experiment:  A greenhouse  Twelve sunflower plants  A beehive with bees  Fertilizer  And water. |  |
|  | We will plant twelve sunflowers in the ground in a greenhouse at the beginning of Spring. | We will plant twelve sunflowers in the ground in a greenhouse at the beginning of Spring. |  |
|  | The flowers will produce seeds then die by the end of the season. | The flowers will produce seeds then die by the end of the season. |  |
|  | We can measure the number of seeds produced by the flowers at the end of the season. | We can measure the number of seeds produced by the flowers at the end of the season. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the number of seeds produced by the flowers at the end of the season. **These are the four variables you can test in this experiment. The number of honey bees in the greenhouse, which can be zero** | In this experiment, there are only four things we can change. Any of these might make a difference in the number of seeds produced by the flowers at the end of the season. **These are the four variables we can test in this experiment. The number of honey bees in the greenhouse, which can be zero** |  |
|  | Or a whole hive might make a difference. | Or a whole hive might make a difference. |  |
|  | The amount of sunlight the greenhouse lets in, which can be full sunlight | The amount of sunlight the greenhouse lets in, which can be full sunlight |  |
|  | Or partial sunlight might make a difference. | Or partial sunlight might make a difference. |  |
|  | The amount of fertilizer, which can be none | The amount of fertilizer, which can be none |  |
|  | Or some might make a difference. | Or some might make a difference. |  |
|  | And the type of water, which can be rain water | And the type of water, which can be rain water |  |
|  | Or tap water. This might also make a difference. | Or tap water. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below. | This frame/slide acts differently than the choice version. |
|  | <number of honey bees > The research question you have chosen is: Does the number of honey bees in the greenhouse affect the number of seeds produced by flowers at the end of the season? | <number of honey bees > Our research question is: Does the number of honey bees in the greenhouse affect the number of seeds produced by flowers at the end of the season? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the number of honey bees in the greenhouse affect  the number of seeds produced by flowers at the end of the season? | OK!  We have chosen the following Research Question:  Does the number of honey bees in the greenhouse affect  the number of seeds produced by flowers at the end of the season? |  |
|  | <amount of sunlight> The research question you have chosen is: Does the amount of sunlight the greenhouse lets in affect  the number of seeds produced by flowers at the end of the season? | <amount of sunlight> Our research question is: Does the amount of sunlight the greenhouse lets in affect  the number of seeds produced by flowers at the end of the season? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of sunlight the greenhouse lets in affect  the number of seeds produced by flowers at the end of the season? | OK!  We have chosen the following Research Question:  Does the amount of sunlight the greenhouse lets in affect  the number of seeds produced by flowers at the end of the season? |  |
|  | <type of water > The research question you have chosen is: Does the type of water affect the number of seeds  produced by flowers at the end of the season? | <type of water > Our research question is: Does the type of water affect the number of seeds  produced by flowers at the end of the season? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the type of water affect the number of seeds  produced by flowers at the end of the season? | OK!  We have chosen the following Research Question:  Does the type of water affect the number of seeds  produced by flowers at the end of the season? |  |
|  | <amount of fertilizer > The research question you have chosen is: Does the amount of fertilizer affect the number of seeds  produced by flowers at the end of the season? | <amount of fertilizer > Our research question is: Does the amount of fertilizer affect the number of seeds  produced by flowers at the end of the season? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of fertilizer affect the number of seeds  produced by flowers at the end of the season? | OK!  We have chosen the following Research Question:  Does the amount of fertilizer affect the number of seeds  produced by flowers at the end of the season? |  |

Menu:

|  |  |  |  |
| --- | --- | --- | --- |
| [crystals](#Crystals) | [soda](#Soda) | [sinking](#Sinking) | [Ramps](#Ramps) |
| [greenhouse](#Sunflower) | [algae](#Algae) | [Ice melting](#IceMelting) | [balloon](#BalloonExp) |

Algae Exp.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide/keyframe | Choice Spoken script | No Choice Spoken Script | Slide/keyframe |
|  | Within the area, **Plant Growth***,* please select a topic by clicking on a picture below. | Within the area of P**lant growth***,* we will select the topic algae growth.  Please click the highlighted  picture below | This frame/slide acts differently than the choice version. |
|  | Below are some variables that might affect the amount of  algae growth in water. You can test one of these variables in your experiment.  The Temperature of the Water  The Amount of Exposure to Music  The Amount of Carbon Dioxide in the Water  The Amount of Direct Sunlight Exposure | Below are some variables that might affect the amount of  algae growth in water. We can test one of these variables in your experiment.  The Temperature of the Water  The Amount of Exposure to Music  The Amount of Carbon Dioxide in the Water  The Amount of Direct Sunlight Exposure |  |
|  | Let’s see how this experiment works. | Let’s see how this experiment works. |  |
|  | Here are all of the materials that may be necessary for this experiment:  A radio  A calendar  A digital scale  A fish tank heater  Fifty grams of algae  A fish tank filled with 16 liters of water  A thermometer  And a carbon dioxide machine. | Here are all of the materials that may be necessary for this experiment:  A radio  A calendar  A digital scale  A fish tank heater  Fifty grams of algae  A fish tank filled with 16 liters of water  A thermometer  And a carbon dioxide machine. |  |
|  | We will add fifty grams of algae to a fish tank filled with 16 liters of distilled water. | We will add fifty grams of algae to a fish tank filled with 16 liters of distilled water. |  |
|  | We can measure the weight of the algae growth after one week. | We can measure the weight of the algae growth after one week. |  |
|  | Push the button in the middle of the screen to see how this experiment works. | Push the button in the middle of the screen to see how this experiment works. |  |
|  | In this experiment, there are only four things we can change. Any of these might make a difference in the weight of the algae after one week.  **These are the four variables you can test in this experiment. The temperature of the water, which can be room temperature.** | In this experiment, there are only four things we can change. Any of these might make a difference in the weight of the algae after one week.  **These are the four variables we can test in this experiment. The temperature of the water, which can be room temperature.** |  |
|  | Or a warmer might make a difference. | Or a warmer might make a difference. |  |
|  | The amount of exposure to music which can be constant music | The amount of exposure to music which can be constant music |  |
|  | Or no music might make a difference. | Or no music might make a difference. |  |
|  | The amount of carbon dioxide , which can be a lot | The amount of carbon dioxide , which can be a lot |  |
|  | Or none might make a difference. | Or none might make a difference. |  |
|  | And the amount of direct sunlight exposure, which can be some | And the amount of direct sunlight exposure, which can be some |  |
|  | Or none. This might also make a difference. | Or none. This might also make a difference. |  |
|  | Select the variable you would like to test. This variable is the independent variable of your experiment. | We will test the following variable: <insert variable>  This variable is the independent variable of the experiment. Please click on the highlighted button below. | This frame/slide acts differently than the choice version. |
|  | <temperature of the water > The research question you have chosen is: Does the temperature of the water affect  the weight of the algae growth after one week? | <temperature of the water > Our research question is: Does the temperature of the water affect  the weight of the algae growth after one week? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the temperature of the water affect  the weight of the algae growth after one week? | OK!  We have chosen the following Research Question:  Does the temperature of the water affect  the weight of the algae growth after one week? |  |
|  | <exposure to music> The research question you have chosen is: Does the exposure to music affect  the weight of the algae growth after one week? | <exposure to music> Our research question is: Does the exposure to music affect  the weight of the algae growth after one week? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the exposure to music affect  the weight of the algae growth after one week? | OK!  We have chosen the following Research Question:  Does the exposure to music affect  the weight of the algae growth after one week? |  |
|  | <amount of carbon dioxide > The research question you have chosen is: Does the amount of carbon dioxide in the water affect  the weight of the algae growth after one week? | <amount of carbon dioxide > Our research question is: Does the amount of carbon dioxide in the water affect  the weight of the algae growth after one week? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of carbon dioxide in the water affect  the weight of the algae growth after one week? | OK!  We have chosen the following Research Question:  Does the amount of carbon dioxide in the water affect the weight of the algae growth after one week? |  |
|  | <amount of direct sunlight exsposure > The research question you have chosen is: Does the amount of direct sunlight exposure affect  the weight of the algae growth after one week? | <amount of direct sunlight exsposure > Our research question is: Does the amount of direct sunlight exposure affect  the weight of the algae growth after one week? | This frame/slide acts & looks differently than the choice version. |
|  | OK!  You have chosen as your Research Question:  Does the amount of direct sunlight exposure affect  the weight of the algae growth after one week? | OK!  We have chosen the following Research Question:  Does the amount of direct sunlight exposure affect the weight of the algae growth after one week? |  |