



CREEPY CREATIONS Homeschool Lesson Plan

Overview

Raddish is designed by a dedicated team of teachers and chefs who believe the kitchen classroom is the tastiest place to learn. We love watching learning come alive when kids mix math, stir science, and taste culture!

Paired with the materials found in your CREEPY CREATIONS box, this lesson plan divides your box into three 45-90 minute lessons. You can use these lessons for students from pre-K – middle school and adapt them to suit your needs. Depending on your timeframe, child's age, and their engagement, these lessons can be taught together or separated.

Please refer to the curriculum provided in your box: recipe guides, activity card, and introduction card.

Happy cooking! Happy learning!



Lesson #1: SPIDER SLIDERS
& SPIDERS ALL AROUND
Activity Time: 45 minutes

LEARNING OUTCOMES

- Students will **learn** the difference between an insect and a spider.
- Students will **learn** that spiders are from the arachnid family.
- Students will **learn** the anatomy of a spider.
- Younger students will use a spidery graphic organizer to **record** spider facts.
- Younger students will **read fiction** and **non-fiction** books about spiders.
- Older students will **discuss** how spiders make them feel and why many people have arachnophobia or a fear of spiders.
- Older students will **practice note taking** while watching a video.
- Older students will **research** a spider fact that is curious to them and **share their findings**.
- Students will **read** and **practice** with **Featured Culinary Skill** - Cutting Fries.
- Students will **make** and **share** Spider Sliders



SPIDERS ALL AROUND

YOUNGER STUDENTS

Notes for the Teacher:

- Are you afraid of spiders? I sure hope not because this lesson is all about them. Perhaps by learning more about them you won't be as afraid. If you are afraid try not to project this fear while you are teaching your students, as they will pick up on it.

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Books about Spiders (see some recommendations at the end of this lesson)
 - For your information
 - The Body of a Spider information sheet (included)
 - For Spider Graphic Organizer
 - Large paper (11 x 17)
 - Markers
 - Go on a Spider Hunt
 - A magnifying glass
 - A notebook and pencil
 - Camera
- **Read**
 - Diary of a Spider by Doreen Cronin
- **Watch**
 - Diary of a Spider – Read Aloud (7:02)
<https://www.youtube.com/watch?v=tRYPEs6Sx74>

LESSON: SPIDERS ALL AROUND

- **Introduction:**
 - Read Diary of a Spider by Doreen Cronin
 - **Alternative:** Show students the Video Read aloud Diary of a Spider (7:02)
<https://www.youtube.com/watch?v=tRYPEs6Sx74>
 - **Discussion Questions:**
 - Are Spiders and flies normally friends? Why or why not?
 - What kind of things does Spider like to do with Fly, Worm, and Worm's sister? Are they things that you like to do? What things do you like to do with your friends and/or siblings?
 - When Spider's mom said he was getting too big for his own skin what happened? He molted. What does that mean? Do humans molt? Do other animals molt? (Snakes and some birds do.)
 - Tell the students that today they are going to be learning more about spiders.



- Information:
 - **Show** students
 - Spiders for Kids (5:52) <https://www.youtube.com/watch?v=WUx2qqPUyOI>
 - **Discuss** what the kids in the video saw.
 - Did they seem to be afraid of spiders? How could you tell?
 - What did they learn that was new? What about you?

ACTIVITY INSTRUCTIONS

- **Spider Web Graphic Organizer**
 - **Revisit** Diary of a Spider or **read** another book about spiders (there are a few suggestions in the listed books at the end of this lesson).
 - **Model** for the students how to **create** a spider web graphic organizer to **record** what they have learned about spiders.
 - Pre-writers can **dictate or draw** pictures to represent their understanding.
 - On a large sheet of paper, have the children **draw** a large oval in the center, to represent the abdomen, and a smaller circle or oval on top, to represent the Cephalothorax. This will be the body of the spider.
 - Ask the students to **draw** 8 lines (4 on each side) coming out from the Cephalothorax for the legs.
 - On the abdomen, have them **write** the title of the book and the author.
 - On each line they can **write or dictate or draw** a fact from the book about spiders.
- Go on a Spider Hunt
 - Just like the kids in the video take your students for a Spider Hunt.
 - **Walk** around your house, back yard, or park.
 - Be on the **lookout** for webs.
 - **Look closely and curiously** at what the spiders are doing.
 - **Ask:** Can you see the different body parts of the spider?
 - Have students **draw or make notes** in their notebook.
 - Optionally, take some **photos** to share later.

Extension:

- Spider web craft ideas
 - <https://artfulparent.com/spider-web-crafts-activities/>
- Write and illustrate some more pages in Spider's Journal.



SPIDERS ALL AROUND

OLDER STUDENTS

Notes for the Teacher:

- One of the skills you will ask students to do in this lesson is to take notes. Note-taking is a skill that needs to be taught. Most students don't know how to differentiate between what is important or extraneous information, or how to organize the information that they do write down so that it makes sense.
 - A very helpful article with videos can be found here <http://www.coolcatteacher.com/note-taking-skills-21st-century-students/>
- In today's lesson you will help by narrowing the search of note taking for the students and providing them with a specific purpose.

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Pictures of spiders
 - Books about Spiders (see some recommendations at the end of this lesson)
 - Paper and writing utensils for note taking
 - Access to the internet or books for research
 - The Body of a Spider information sheet (included)
- **Read**
 - <http://www.coolcatteacher.com/note-taking-skills-21st-century-students/>
- **Watch**
 - 75 Facts About Spiders (8:45) <https://www.youtube.com/watch?v=SSEqQXX1rCI>

LESSON: SPIDERS ALL AROUND

- Introduction:
 - **Ask:**
 - When I say the word spider how do you **feel**?
 - Why do you **think** people have such strong reactions to spiders?
 - **Show** the students pictures of spiders.
 - How does this make you feel?
 - How do you react to the word "spider"? How do pictures feel different?
 - Do you know what a fear of spiders is called? Arachnophobia.
 - If you are curious in learning more check out this website
 - Why are we afraid of spiders <https://www.iflscience.com/brain/why-are-we-afraid-spiders/>
 - **Tell** the students that today they will have the learn about spider anatomy, watch a video, practice note-taking, and have the opportunity to do research about a cool lesser known spider fact.
- Information: Note Taking and Spiders



- Provide the students with some books about spiders and paper and writing utensils for note taking.
 - Model for them how to set up their note taking page:
 - with a heading or title
 - the date
 - the name of the book they are using for research
 - Tell them to focus their notes on the basic anatomy of spiders.
 - Ask them for ideas of how they could set up that information. Some ideas could be:
 - A diagram with labels.
 - A table with the name of the body part in one column and the definition in the other.
 - Etc.
 - Give students 10-20 minutes to complete this task and then have them share what they learned.
 - Provide them The Body of a Spider information sheet (included) so they can fill in any gaps.
- ACTIVITY INSTRUCTIONS: Cool Spider Facts- Note Taking and Research
 - Tell the students that they are going to get to watch a crazy video that includes 75 facts about spiders!
 - Inform them that they are again going to have to take notes.
 - The focus this time will be based on their interest.
 - Tell them that they will be choosing one fact to do further research on.
 - With 75 facts they will not be able to hold all of the possibilities in their heads until the end to be able to choose.
 - Ask them what they could do to help them remember enough to make a great choice?
 - Have them share their ideas with one another and evaluate how to carry out the suggestions and how effective it would be.
 - Show students 75 Facts About Spiders (8:45)
<https://www.youtube.com/watch?v=SSEqQXXIrCI>
 - Allow students to pause the video as necessary to take notes.
 - After watching the video have students share about their note taking experience and whether they think it worked well for them and what they might change the next time.
 - Provide students with time and resources to do their cool spider fact research.
 - Have students share their cool facts.

Extension:

- Research arachnophobia.
- Practice note taking in another subject.



COOKING SPIDER SLIDERS

Kitchen Prep

- Read the SPIDER SLIDERS recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - Cutting Fries**
- Discuss kitchen safety. Specifically, Knife safety (Visit Raddishkids.com/pages/safety).

Prepare SPIDER SLIDERS

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to cut, press, and build.
- When the SPIDER SLIDERS are ready, eat, taste and share!
- While your friends and family are eating, teach them about what you learned about spiders. Younger students can share their graphic organizers and older students can describe their note taking and what they learned. Both can share any cool spider facts that they have learned!



RESOURCES

- Books
 - Are You a Spider? by Judy Allen
 - Spiders by Gail Gibbons
 - Spinning Spiders by Melvin Berger
 - Diary of a Spider by Doreen Cronin
 - Aaaargghh! Spider! by Lydia Monks
 - Charlotte's Web by E.B White
 -
- Websites
 - <https://www.iflscience.com/brain/why-are-we-afraid-spiders/>
 - <http://lessonplanspage.com/sciencespiderwebsk5.htm/>
 - <http://www.kidzone.ws/lw/spiders/facts02.htm>
- Videos
 - Spiders for Kids (5:52) <https://www.youtube.com/watch?v=WUx2ggPUyOI>
 - 75 Facts About Spiders (8:45) <https://www.youtube.com/watch?v=SSEqQXXI rCl>
 - Diary of a Spider – Read Aloud (7:02)
<https://www.youtube.com/watch?v=tRYPEs6Sx74>



Lesson #2: EYE-POPPING TOMATO SOUP
& EYE FACTS
Activity Time: 45-60 minutes

LEARNING OUTCOMES

- Younger students will **observe** their eyes with their eyes.
- Younger students will **discuss** what their eyes help them to do.
- Younger students will **learn** a bit about what it is like to live without sight.
- Younger students will **discuss** what they see and **build descriptive** vocabulary.
- Younger students will **learn the anatomy** of their eye: *lashes, eye lid, eyebrow, iris, pupils, veins, and tear duct*.
- Younger students will use their sense of sight to closely **explore** the world around them.
- Older students will **learn** the anatomy of their eye: *iris, pupil, sclera, optic nerve, lens, retina*.
- Older students will discuss what it would be like to live without sight.
- Older students will be **challenged to create** a model of the eye using a set of materials.
- Older students will use their **model to demonstrate** how the optic nerve works.
- Students will **read and practice** with **Featured Culinary Skill** - Blender Safety
- Students will **make and share** Eye-Popping Tomato Soup.



EYE FACTS

Notes for the Teacher:

- Before this lesson, take close up pictures of every students' eyes (one or both). These can be stored in a digital file or printed out. They will be used for a matching activity later.
- **How to talk to your students about disabilities.**
 - **Address your student's curiosity**
 - If you notice a student staring, go ahead and say something to them like "I noticed you saw that child has a harder time walking than you do. She has cerebral palsy, which makes her muscles work a little differently."
 - If you know the person with the disability let your child ask them a question.
 - **Be straightforward**
 - When a student notices a person with a disability, avoid being emotional.
 - When a student asks you a question about a person with a disability, don't go into a lot of detail. Answer only the question asked as simply as possible. For example: "Why is that person in a wheelchair?" your answer might be "I imagine they may be having problems with their legs. They can't walk."
 - By only answering the question asked, you keep your answers at a developmentally appropriate level. Students can only form questions about concepts that they have an awareness of – so follow their lead. As their questions become more sophisticated or detailed, so can your answer. However, remember to still be brief and only answer what is asked.
 - **Know that your student is listening**
 - Be aware of how you describe people with disabilities. Avoid outdated and derogatory terms. Separate the person from the condition. For example, "Say the child who is deaf" versus "the deaf child."
 - Avoid referring to nondisabled kids as "normal" because that implies abnormality in others.
 - **Point out what is the same**
 - Talk to your students about what a child or person with a disability has in common with others. Maybe they go to the same school, like video games, celebrate the same holidays.
 - **Teach awareness and sensitivity**
 - Be sure to point out not only what people with disabilities can't do but also what they can.
 - Help students to understand that just because a child is physically impaired, it does not mean that they are mentally impaired. Speak to a disabled person just as you would another person of that same age.
 - Do not allow jokes or bullying. Take overhearing something like that as an opportunity to explain that those words hurt. Provide them with tools to experience empathy and express apology.



Teacher Prep:

- **Collect Materials:**

- Recipe Guide, tools and ingredients listed
- Chart paper and markers for KWL Chart
- Hand mirrors or a wall mirror
- Photos of students' eyes
- Eye diagrams for your help in drawing and labeling one with your students:
 - <https://www.education.com/worksheet/article/parts-of-an-eye/>
 - <https://www.pinterest.com/pin/469570698640703085/>
 - <https://kidshealth.org/en/kids/eyes.html>

YOUNGER STUDENTS

LESSON: EYE SPY

- **Introduction:**

- **Read** the Eye Spy Fun Bite on the Eye-Popping Tomato Soup recipe guide.
 - Do the activity together with the students
- **Discuss** the activity:
 - What part of your body helped you play? How did it help?
- Ask students what they know about eyes.
- **Create** a KWL chart (Know, Want to know, Learned) about what your students know about eyes and how they work.
- **Tell** the students that today they are going to learn about the different parts of their eyes and use their eyes to play a matching game.

- **Information:**

- **Provide** each student with a mirror.
- **Ask** the students to look closely at their own eyes.
 - What do they notice? Color, shape, parts of their eye?
- **Talk with** the students about the parts of their eye:
 - *eye lashes* - help to tell your eyelids when they need to shut; protect the eyes
 - *eye brows* - protect our eyes from moisture and light; move wetness from sweat and rain away from our eyes
 - *eyelids* - protect the eye and keep it moist
 - *iris* - the colored part
 - *pupil* - the black hole at the middle of the eye that lets in light
 - *tear duct* - in the inside corner; keeps our eyes from getting dry; helps to wash away dirt that gets in
- **Draw** a large diagram of an eye and label it with the parts that the students notice.
- **Focus** the next part of the investigation on supporting student inquiry into the questions the students posed on the KWL chart of things they wanted to know.
- A helpful **description** of how our eyes work from <https://learning-center.homesciencetools.com/article/early-childhood-eyes-sight-science-lesson/>
 - How do our eyes work?



- The little dark circle in the center of each of your eyes lets light in. It is called a pupil. If you are in a dark place where no lights at all are on, can you see anything? No, you can't because our eyes need light to be able to see! Once the light goes in, it hits a part inside at the back of your eye that is very sensitive to light. This part is called the retina. When light touches the retina, it makes an upside-down picture of whatever you are looking at. A large nerve called the optic nerve carries the image to your brain where it gets turned around so that you see it the right way instead of upside-down!
- Thinking Scientifically: Your eyes and your brain work together very quickly to flip images around so that you see them right side up. It happens automatically whenever your eyes are open. Seeing is like breathing, you don't even have to think about it, but you do it all the time!
- Prompt further discussion with these questions:
 - What if you did not have the sense of sight?
 - Could your other senses give you the information about your surroundings that you need? Discuss each one.
 - Some people need glasses or contact lenses to help them see well. Some people cannot see very much, or nothing at all.
 - Do you think they could read a book?
 - Do you think they could hear music?
 - Do you think they could taste a strawberry?
 - People who don't see well even with glasses or lenses can use Braille by touching the words with their fingers to read books and newspapers.
 - Why do you think we have 2 eyes, and not 1 or 3?
 - Accept all answers, then explain that each of the eyes sees objects just a little bit differently, so things look round or 3-dimensional instead of flat.
 - The different perspectives from each eye help us to decide how far or close things are.
- ACTIVITY INSTRUCTIONS: Play with Sight
 - Eye Match
 - **Print out or organize** the photos of the student's eyes that you took earlier. Number them sequentially so that students can guess which photo belongs to which student.
 - **Explain** to students that they are going to play a matching game but instead of flipping over cards to look for a pair they will look at a photo and then at their classmates faces to find the match.
 - **Provide** students with access to the eye photos and some way of **recording** their guesses.

Extension:

- Do the **Chef's Challenge** from the Eye Spy! fun bite.



- Choose a different category, like toys in a toy room, or clothes in the laundry basket, etc.
- Plan a visit to the eye-doctor.



EYE FACTS

OLDER STUDENTS

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Optional: Walk in a Blind Person's Shoes
 - Blindfold
 - Parts of the Eye
 - Parts of the Eye Information (included)
 - Chart paper and marker for vocabulary and definitions
 - An eye diagram that can be labeled
 - <https://kidshealth.org/en/kids/eyes.html>
 - <https://www.webmd.com/eye-health/amazing-human-eye>
 - How Your Eyes Work (5:09)
<https://www.youtube.com/watch?v=syaQgmxb5i0>
 - Our Eyes do Flips! Experiment
 - Round (sphere-like) glass bowl
 - Magnifying glass
 - Clay/play dough
 - Flashlight
 - White paper
 - Dark-colored cardstock with a cut out image
 - Science Experiment- How the Eye Works (1:50)
https://www.youtube.com/watch?v=8uAy_G4RPPE
- **Read**
 - Parts of the Eye Information (included)
- **Watch**
 - For your understanding of the parts of the eye:
 - How Your Eyes Work (5:09)
<https://www.youtube.com/watch?v=syaQgmxb5i0>
 - To understand the set up and representation of different parts of equipment in the science experiment
 - How the Eye Works (1:50)
https://www.youtube.com/watch?v=8uAy_G4RPPE



LESSON: A World Without Sight

- Introduction:
 - Ask your students to close their eyes, and **imagine** a world without sight. Some discussion questions might include:
 - What would the world be like without sight?
 - What would you miss seeing?
 - What do you think would be more difficult?
 - What do you think wouldn't change?
 - What are some things that sight allows us to do?
- Optional: Walk in a Blind Person's Shoes
 - Put students into partner groups.
 - One student in each pair will wear a blindfold. Ask the student's permission to wear a blindfold and make sure the student is comfortable doing this!
 - The sighted student acts as a **guide**. Be clear that they are **responsible** for the safety of their partner!
 - Have the students **explore** this way for about ten minutes.
 - Students could take a **walk around** the room or go outside.
 - After 10 minutes ask the "blind" students to **describe** how it felt to be without sight.
 - Did they find that they used more of their other senses?
 - Which senses helped the most?
 - Did anything about the experience surprise you?
 - Switch places and repeat the activity.
- Tell your students that today, they will be learning about 7 important parts of the eye, how they work together so that we can see the world around us, and they will create an experiment.
- Information: Parts of the Eye and their Jobs
 - Tell the students, that as they have just **experienced**, that without our eyes, the world as we each knew it would seem like a very different place. Although our eyes are small, they each have different parts that work together to allow each of us to see.
 - Ask the students:
 - What parts of the eye can you name?
 - Which part determines the color of our eyes?
 - What is the black dot at the center of our eyes called? Etc
- Parts of the Eye
 - **Pupil:** The pupil is the black hole in the eye, which takes in light and allows a person to focus on an object in their line of vision.
 - **Iris:** The iris is responsible for giving the eye its color. The iris also shrinks the pupil when it is bright, and widens the pupil when it is dark. Demonstrate how this works by turning on and off your classroom lights, and having students record how they see their classmates' eyes change.



- **Sclera:** The sclera is the white part of the eye, which protects the inside of the eye and allows people to move their eyes to find objects.
- **Cornea:** The cornea is the outer covering of the eye, which protects and prevents harmful substances from entering the eye.
- **Lens:** The lens sits behind the pupil, and it allows the eye to change shape so it can focus on the object that the pupil takes in.
- **Retina:** The retina is in the back of the eye and contains rods and cones. The rods let us see black and white and the cones let us see color.
- **Optic Nerve:** The optic nerve transfers the visual information from the back of the eye to the brain.
- In order to help visual learners, **watch** How Your Eyes Work (5:09)
<https://www.youtube.com/watch?v=syaQgmx5i0>
- Instructions for Experiment: Our Eyes do Flips!
 - **Collect** the materials listed above for the Our Eyes do Flips! Experiment.
 - **Review** with students the idea outlined in the video How Your Eyes Work, specifically about how the optic nerve transmits visual information.
 - **Tell** the students that they are going to use the materials you have collected to create an eyeball!
 - **Ask** them what they **think** that each material **represents**. Give them hands on time to **explore** with the materials.
 - Glass bowl- eye ball/sclera
 - Magnifying glass- lens
 - White paper- the part of the brain that the optic nerve projects its information
 - The dark paper cut out- something that our eye sees
 - Flashlight- we need light to see!
 - **Challenge** them to set the experiment up so that the light can shine on the paper cut out and our “eye” can see it.
 - **Allow** students time to **experiment** with set up. Step in and support where necessary.
 - If students get completely stuck **show** them the video:
 - How the Eye Works (1:50)
https://www.youtube.com/watch?v=8uAy_G4RPPE

Extension:

- All kinds of cool optical illusions and how to find your blind spot!
 - http://www.abc.net.au/science/surfingscientist/pdf/lesson_3_eyesight.pdf
- What is it like to be blind?
 - Blind Children UK (4:38) <https://www.youtube.com/watch?v=aBsYy4woSwg>
 - What it's like to go blind? (3:33) <https://www.youtube.com/watch?v=PPGTfUr6O8o>
 - Blind People Tell Us Which Questions Annoy Them the Most (4:04)
<https://www.youtube.com/watch?v=oVR8NckJOY>



COOKING EYE-POPPING TOMATO SOUP

Kitchen Prep

- Read the EYE-POPPING TOMATO SOUP recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - Blender Safety**
- Discuss kitchen safety. Specifically, Blender safety (Visit Raddishkids.com/pages/safety).

Prepare EYE-POPPING TOMATO SOUP

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to cut, stir, and make eyeballs.
- When the EYE-POPPING TOMATO SOUP IS ready, eat, taste and share!
- While your friends and family are eating, teach them about the parts of the eye and how it works for them to be able to see right side up!

RESOURCES

- **Books**
 - Seeing by Rebecca Rissman
 - See, Hear, Smell, Taste and Touch: Using Your Five Senses National Geographic
 - I Can Read with My Eyes Shut by Dr Seuss
 - My Travelin' Eye by Jenny Sue Kostecki-Shaw
 - Eye to Eye: How Animals See The World by Steve Jenkins
 - Color and Vision- The Evolution of Eyes and Perception by Steve Parker
 - A comprehensive list of non fiction books about blindness:
 - https://www.goodreads.com/list/show/77624.Blindness_Loss_of_Vision_NO_NFICTION
- **Websites**
 - <https://kidshealth.org/en/kids/eyes.html>
 - <https://www.webmd.com/eye-health/amazing-human-eye>
 - <https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/127798-exploring-our-sense-of-sight/>
 - <https://www.teachpreschoolscience.com/exploring-the-sense-of-sight.html>
 - <https://www.education.com/worksheet/article/parts-of-an-eye/>
 - Eye Diagram- <https://www.pinterest.com/pin/469570698640703085/>
- **Videos**
 - How Your Eyes Work (5:09) <https://www.youtube.com/watch?v=syaQgmb5i0>
 - Blind Children UK (4:38) <https://www.youtube.com/watch?v=aBsYy4woSwg>
 - What it's like to go blind? (3:33) <https://www.youtube.com/watch?v=PPGTfUr6O8o>
 - Blind People Tell Us Which Questions Annoy Them the Most (4:04) <https://www.youtube.com/watch?v=oVR8NckJ0Y>



Lesson #3: CHOCOLATE CREATURE COOKIES
& SCARED OR EXCITED?
Activity Time: 60-90 minutes

LEARNING OUTCOMES

- Students will **experience** being frightened (BOO!) and describe how it makes their body feel.
- Students will **learn** what happens physiologically, in their bodies, when they get scared.
- Students will **learn** why some people like to be frightened.
- Students will be **introduced** to some of the history behind modern day scary creatures.
- Students will **design** age appropriate ways to scare friends and family.
- Students will **read** and **practice** with **Featured Culinary Skill** - Making Cutout Cookies.
- Students will **make** and **share** Chocolate Creature Cookies.



SCARED OR EXCITED?

Notes for the Teacher:

- Use your judgement when it comes to what is an appropriate level of scariness for your students.
- Please read the notes below and pre-watch the videos to ensure that they are a good fit for your students.
- Having discussions about fear and being scared may bring up some of your student's fears.
 - Practice active listening to their concerns and don't immediately jump to dismissing or "fixing" the problem.
 - Maybe through the learning in the lesson they might discover why they feel afraid and maybe even be able to turn it into a good or excited response.
 - A list of books is included in the resources that address some common childhood fears and anxieties.

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Intro
 - Whatever you choose to use to scare your students
 - Spooky music
 - Mask
 - Costume etc.
 - Materials below are based on the activity chosen.
 - Mask Making
 - Paper plates
 - Hole punch
 - Scissors
 - Glue
 - Yarn or thin elastic
 - Paint or markers
 - Other decorations such as feathers, sparkles etc.
 - <https://artfulparent.com/how-to-make-paper-plate-masks/>
 - Haunted house design
 - For planning- Paper, markers, ruler, book or internet resources
 - Optional execution of plan: Whatever spooky materials are dictated by the plan.
 - Sensory Bags
 - Check out this website for ideas and materials
 - <http://www.growingajeweledrose.com/2012/10/halloween-sensory-bag-fun.html>



- Watch
 - This video is a cartoon and shows scary situations that kids of all ages can relate to but the language is still sophisticated.
 - **A heads up if this is a concern to you:** At minute 1:20 when the narrator is explaining how our brain reacts to fear is similar to how we experience in positive high arousal states like excitement, happiness, and even during sex."
 - Why is being scared so fun? (4:28)
<https://www.youtube.com/watch?v=oetVvR5RQUs&t=185s>
 - Why do we enjoy being scared? Fun Science (4:20 – after that it is an ad)
<https://www.youtube.com/watch?v=UH-JDPdNws>

LESSON: BOO!

- Introduction:
 - **Enter** the classroom and scare your students. This could range from simply shouting "boo!", to putting on a mask, playing eerie sounds, or set up something more elaborate.
 - **Ask** your students:
 - How did your body feel when I scared you?
 - How did it make you feel emotionally? Shocked, angry, worried?
 - Did you like those feelings? Why or why not?
 - Why do you think your body reacts this way to being scared?
 - **Inform** your students that today they will be **learning** about what happens inside of their body's when they get scared, **inquire** as to why some people like the sensation of getting frightened, and **design** something to scare their friends and family.
- Information: The Science of Fear
 - **Share** that humans have been scaring themselves and each other since the beginning of humankind.
 - **Ask:**
 - In what ways do you think they scared each other 2000 years ago?
 - Spooky storytelling
 - Jumping off of cliffs
 - Popping out to frighten a friend from a dark cave
 - Etc.
 - What reason do you think people have for scaring themselves and others?
 - To prepare children for life in a scary world
 - To build a strong group cohesion
 - To warn and control people's behavior
 - **Inform** students that it's only in recent times, the last 200 years or so, that people have started scaring themselves and others for fun and to make money.
 - **Share** the history of how some spooky creatures and traditions began:



- **Mummies**- In ancient Egypt, mummification was used to preserve bodies from decaying. Beginning in the 19th century with the discovery of Pharaoh tombs, the popularity of Egyptian history spread throughout Europe and North America. At that time, the idea of living mummies and their curse started to show up in books by authors like Sir Arthur Conan Doyle (Sherlock Holmes) and Bram Stoker (Dracula).
- **Trolls**- These creatures come from Norse mythology and folk stories in Scandinavia. Some Paleoanthropologists even think that it comes from when Cro-Magnon man met Neanderthals thousands of years ago!
- **Dragons** - Cultures all around the world have stories that include dragons. Some people believe that dinosaur fossils were once mistaken for the bones of dragons.
- **Want to learn more?** These websites contain some scary pictures.
 - <http://mentalfloss.com/article/505066/origins-25-monsters-ghosts-and-spooky-things>
 - <https://the-line-up.com/creepy-mythical-creatures>
 - <https://www.pitt.edu/~slavic/courses/vampires/images/bats/vambat.html>
- **Ask:** In what ways do you think people seek out being scared today?
 - Roller coasters, drop zone, high in the air spinning rides
 - Bungy jumping, sky diving, paragliding, etc.
 - Scary movies, haunted houses, etc.
- How can scaring yourself feel good?
 - **Watch**
 - Select the appropriate video or neither for your students please SEE NOTE IN TEACHER PREP
 - Why is being scared so fun? (4:28)
<https://www.youtube.com/watch?v=oetVvR5RQUs&t=185s>
 - Why do we enjoy being scared? Fun Science (4:20 – after that it is an ad) <https://www.youtube.com/watch?v=UH-JDPdNws>
 - Discuss the videos and **review** what is going on in the human body and mind when people get scared
- **ACTIVITY INSTRUCTIONS:** Your Turn to Scare!
 - Decide which activities to offer to your students based on appropriate level, interest, time available and materials on hand.
 - Mask Making
 - Collect materials as listed above.
 - Discuss with your student's what kind of mask they want to make.
 - Provide an opportunity to research in books or elsewhere what features they would want to include on the mask.



- Check out the following website for great instruction
<https://artfulparent.com/how-to-make-paper-plate-masks/>
- Sensory Bags (the ideas included are Halloween-themed but do not need to be)
 - <http://www.growingajeweledrose.com/2012/10/halloween-sensory-bag-fun.html>
- Haunted House Design
 - Tell students to think about what scares them.
 - Survey their friends and family about their fears and phobias.
 - Watch Why Do We Like Being Scared? (3:21)
<https://www.youtube.com/watch?v=UZRIjIwmggk>
 - Ask: What tips did you learn from the video that you can use in designing your haunted house?
 - Make changes in sensory cues:
 - From dark to light
 - From big to little
 - Vary the stimuli:
 - Visual- different monsters, spooky drawings etc.
 - Auditory- creepy soundtrack, moaning, creaky floor boards etc.
 - Feel- create a “chilly mist”
 - Play into people’s unique fears:
 - This goes back to taking a survey of what your friends and family are afraid of.
 - Spiders
 - The dark etc., snakes
 - Have students **create a design** for their haunted house which includes:
 - A theme
 - Drawings or sketches of characters/monsters etc.
 - A map of the haunted house with the planned route and where various “scares” will occur
 - Music or sound track
 - Anything else they think of!
 - Have students **present** their planned haunted house for **review** and **feedback**.
 - Have they kept in mind the tips listed above?
 - Optionally, **carry out** the plans and **host** a haunted house!

Extension:

- Research further histories of spooky creatures.
- Investigate more deeply the structures of the brain and nervous system responsible for human fear responses.
- Visit a haunted house and **evaluate** its success at scaring people. Did they incorporate some of the tips from the video?



COOKING CHOCOLATE CREATURE COOKIES

Kitchen Prep

- Read the CHOCOLATE CREATURE COOKIES recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - Making Cutout Cookies**
- Discuss kitchen safety. Specifically, OVEN safety (Visit Raddishkids.com/pages/safety).

Prepare CHOCOLATE CREATURE COOKIES

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to crack, roll, and cut out.
- When the CHOCOLATE CREATURE COOKIES are ready, eat, taste and share!
- While your friends and family are eating, share your activity (mask, sensory bags, haunted house design), after they are done give them a scare! Then explain to them why a scare can feel good.

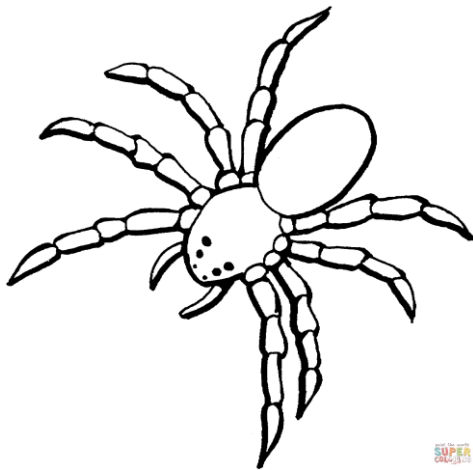


RESOURCES

- Books
 - Who Feels Scared? By Sue Graves
 - Little Mouses Big Book of Fears by Emily Gravett
 - The Darkest Dark by Astronaut Chris Hadfield
 - Monster, Be Good! by Natalie Marshall
 - Go Away, Big Green Monster by Ed Emberley
 - Spider Sandwiches by Claire Freedman
 - Elmer and the Monster by David McKee
 - Scaredy Boo! by Claire Freedman
 - Where the Wild Things Are by Claire Freedman
 - Where the Wild Things Are by Maurice Sendak
- Websites
 - <http://mentalfloss.com/article/505066/origins-25-monsters-ghosts-and-spooky-things>
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The Body of a Spider

- **Cephalothorax**
 - Spiders have two parts to their body. The front part has the spider's eyes, mouth, fangs, stomach, brain, and the glands that can make poison. This part is called the *cephalothorax*. All 8 legs are connected to this part as well, 4 on each side.
 - Most spiders have 8 eyes but some have less.
 - They also have two little leg-like things beside their fangs that act like hands to help hold onto their prey while they eat it. They are called *pedipalps*.
- **Abdomen**
 - The other part of a spider's body is called the *abdomen*. At the back of the abdomen there are something called *spinnerets*, where spiders make the silk to build their webs.
- **Legs**
 - Spiders' legs are hairy. Any idea why? Those hairs pick up vibrations so they can tell when something has gotten stuck in their web. Those hairs are their "spidey senses".
- **Exoskeleton**
 - Spiders don't have a skeleton inside of their bodies! How do they not just turn into a pile of jelly? Well they have something called an *exoskeleton*, which is a hard outer shell.
 - Exoskeletons are hard and do not grow and stretch with a spider as it grows like your skin does. So young spiders need to *shed or molt* their exoskeleton as they grow. They climb out of their own cephalothorax and then stretch themselves out before the new exoskeleton hardens.



Parts of the Eye

- **Pupil:** The pupil is the black hole in the eye, which takes in light and allows a person to focus on an object in their line of vision.
- **Iris:** The iris is responsible for giving the eye its color. The iris also shrinks the pupil when it is bright, and widens the pupil when it is dark. Demonstrate how this works by turning on and off your classroom lights, and having students record how they see their classmates' eyes change.
- **Sclera:** The sclera is the white part of the eye, which protects the inside of the eye and allows people to move their eyes to find objects.
- **Cornea:** The cornea is the outer covering of the eye, which protects and prevents harmful substances from entering the eye.
- **Lens:** The lens sits behind the pupil, and it allows the eye to change shape so it can focus on the object that the pupil takes in. Pass around a camera and ask students to focus on the black hole to take a picture. Explain that the lens is similar to the lens of the camera that we look at while taking a picture.
- **Retina:** The retina is in the back of the eye and contains rods and cones. The rods let us see black and white and the cones let us see color.
- **Optic Nerve:** The optic nerve transfers the visual information from the back of the eye to the brain.

Notes
