

TUMMY TIME EXPLORATIONS: INFANTS (0-12 months)

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child to increase tummy time. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first before beginning or trying tummy time and/or tummy time activities with your child.



Tummy time is a wonderful opportunity for young infants to develop upper body muscles and learn about and explore the world around them. You can introduce STEM ideas and vocabulary as you support their physical development.

Children learn new things when they practice them in everyday routines. Try one or two of the following activities during tummy time. With a little bit of practice, tummy time can become a natural place to build the foundation for STEM learning. Use these ideas to set up the environment and materials to best suit your child's needs.

Recommendations for Tummy Play Time (American Academy of Pediatrics) *:

- First day home: 3-5 minutes 2-3 times daily (15 minutes total)
- By three/four months: Increase length and frequency of tummy time (at least an hour total per day)
- Until they are crawling: Increase length and frequency of tummy time (at least an hour and a half total per day)



***Note:** Infants at any age should not be left alone facing down. An adult should always guide tummy time. Additionally, while tummy time is a wonderful opportunity for babies' development and exploration, babies should still sleep on their backs and not stomach.

Key STEM Learning:*Science**Computational Thinking**Engineering**Math*

Note: STEM concepts are highlighted in **bold** and *italicized*. At the STEMIE center, technology refers to computational thinking.

Technology is the introduction of underlying concepts of building or creating technology, including computational thinking, which is the basic logic underlying computer science (U.S. Department of Ed/U.S. Department of Health and Human Services, 2016).

Adaptations:***What can I do to support my child's learning?*****Access/Environment:**

You can use roll-up towel/blanket, pillow, or wedge to give them extra support during tummy time.

Dim the light, if using light-up toys during tummy time.

If your child really dislikes tummy time, start by trying short periods (1-2 minutes) several times throughout the day and then gradually extending the tummy time.

Or if you are able, lay them on your stomach instead of the floor or walk around with them cradled in your arm on their tummy to help them lift their head and push up.

Learn how to do tummy time in various positions:

- <https://www.youtube.com/watch?v=sKJE0HqIMGQ&feature=youtu.be>
- https://www.youtube.com/watch?time_continue=135&v=M3rCtW9DMD4&feature=emb_logo



Adaptations:

What can I do to support my child's learning?

Materials:

Use objects that make sounds, with different textures, or with lights, such as rattles, scarves, and/or crinkly paper.



Adaptations:

What can I do to support my child's learning?

Interactions/Instruction:

Note: Communication may include the use of words, signs, gestures, and different types of cues (e.g., touch, movement, visual, etc.)

Smile and communicate with your child at eye level.

Speak/sign slowly, emphasize keywords, and wait for a response.

Praise your child's efforts with words, facial expression, or body language.

Encourage older siblings to join tummy time.

Use your child's preferred toys to distract them in order to increase time on their tummy.



Exploration: *Little Texture Explorer*

Key STEM
Learning:

Science

Description: Provide household items with different **textures** on the floor for your infants to explore, such as sponges, small paper bags, or towels. Allow your infants to explore those items in their own way and using **different senses**. Narrate the actions and experiences as they **explore** the items. You may say, "What are you **grabbing**? You like something **soft** and **squishy**, don't you?"

What My Child Is Learning!

Tummy time could help your infants develop upper body muscles, but it could be unbearable for them. Using objects or interacting with them could motivate them to hold their heads up longer.

Children at this age learn through **exploring** the objects/environments and interacting with adults. Narrating children's experiences helps them make a connection between words, concepts, and real-life experiences. For example, using words to describe **textures** (e.g., **soft, hard, squishy, smooth, rough**) could help your children develop fundamental science concept: **physical properties**.



Exploration: *Where is the Ball?*

Key STEM
Learning:

Science

Math

Description: Provide *small* balls with varied *sizes, colors, or textures* and allow children to play with balls in their own way. While interacting with a ball, talk about the *textures, sizes, colors, or movements* of the ball.

What My Child Is Learning!

Tummy time could help your infants develop upper body muscles, but it could be unbearable for them. Using objects or interacting with them could motivate them to hold their heads up longer.

There are multiple STEM learning opportunities for your infants as they play with the balls. You can talk about the **properties of balls**. For example, you may say, "Looks like you like the **yellow** one. The **red** one is too **big** for you, huh?" You can also talk about how **balls can move** in different ways. For example, you may say, "You **dropped** the ball! The ball is **rolling/bouncing**."



Exploration: *Who/What is That in the Mirror?*

Key STEM
Learning:

Science

*Computational
Thinking*

Math

Description: Place your infants on tummy in front of a **mirror**. Encourage your infants to look at their own **reflections** in the mirror during tummy time. Point to different **body parts** and say, "What is this? It is your **nose!**"

You can also embed relational words (e.g., **up, around**) while praising your infants' efforts in holding their head up. You may say, "You work so hard to **lift up** your **head** and **look around**."

What My Child Is Learning!

Tummy time could help your infants develop upper body muscles, but it could be unbearable for them. Using objects or interacting with them could motivate them to hold their heads up longer.

Mirror play. Doing tummy time in front of a mirror can encourage your infants to develop self-awareness of their **bodies**. It can also be a wonderful opportunity to introduce STEM words (e.g., naming **different body parts**) and fundamental concepts (e.g., **spatial relationships**). Besides narrating the STEM words, you can play an imitation game with your infants in front of a mirror to make it more fun. For example, blink your eyes and say and have them imitate you. You may say, "You are blinking your eyes, like mommy. Let's do it again!" Make sure to give them some time to respond.



Exploration: What Am I Noticing?

Key STEM
Learning:

Science

Computational
Thinking

Math

Description: Make tummy time fun with peekaboo! Cover your face with hands or cover objects with a cloth and then remove it. Use questions throughout the game to help your infants build thinking skills. For example, as you cover the objects with a cloth, you may ask **"Where did it go?" "Where is it?"** Then, embed basic **number** concepts as your infants try to find the object. For example, **count 1-2-3** aloud before removing the cloth or hands. For example, **"1, 2, 3, here it is!"** After revealing the objects, allow them to take their time to play with the objects and/or encourage them to do it again. Once your infants are familiar with the game, they might initiate the game by pulling the cloth on top of the objects and look forward to trying it again and again!

What My Child Is Learning!

Tummy time could help your infants develop upper body muscles, but it could be unbearable for them. Using objects or interacting with them could motivate them to hold their heads up longer.

Babies like peekaboo. Playing games like peekaboo is not only fun but is full of STEM learning opportunities. It helps children develop **object permanence**, which is also an early understanding of science. As they start developing an understanding of the objects exist even when they cannot see them, they begin to **experiment** by initiating the game themselves, which is part of the scientific inquiry. The exploration can also help children develop foundational computational thinking concepts such as repeating an action over and over again and intentionally doing something more than once.

