Ages 4+	10-15 n	nin
-	-	
o-large items (ε	.g., boxes, furni	ture)
item" (e.g. toy	book)	Choose or create spatial word cards.
		UNDER UNDER AROUND
Y		QUESTIONS
Into	Across	Can you go over?
		Can you go under?
Between		Can you go around?
	o-large items (e item" (e.g., toy,	Into Across Through

- 2. Arrange the items for the obstacle course in a path. *Optional*: Use masking tape, washable marker, or sticks to mark the path through the obstacle course.
- 3. Hide the "mystery item" at the end of the obstacle course.

Say, "I made an obstacle course! I hid a mystery item at the end. You get to choose cards that tell you what to do on the obstacle course. At the end, you can find the mystery item. But first, let's practice our spatial words."

4. Choose one item (e.g., a pillow) from the course to use when practicing the spatial words.

Hold up the "over" card and say, "What do you think this card means? This card means that you jump **over** something! Can you show me how you jump **over** the pillow?" Wait for the child to demonstrate **over**.



5. Then, practice the remaining spatial words. Hold up each spatial card, and wait for children to demonstrate its direction.

"Can you show me how you go under the pillow?"
 "Can you show me how you go around the pillow?"
 "Can you show me inside the pillow?"

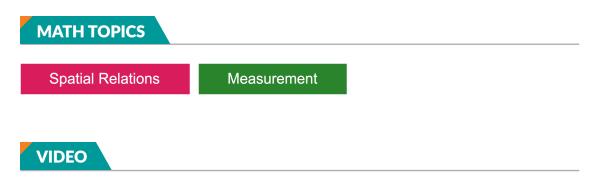
6. Let children be creative in how they model each card (e.g., slithering *under* the pillow on the floor like a snake, poking the stuffing of the pillow to show *inside*, etc.). Once children have practiced each spatial word, move on to *Obstacle Course Part 2*: *The Course*!

#### **TIPS FOR PLAYING**

• You can also play this game by creating a mini obstacle course out of smaller objects, such as toys, books, or clothing. Instead of having the children navigate the course themselves, they can guide a small figurine or toy animal through the course to find the mystery item. Playing this way saves space and can allow more children to play at the same time.

## WHAT CHILDREN ARE LEARNING

- Early spatial skills predict children's later success in science, engineering, technology, and math.
- Spatial language helps us describe where things (or people) are in space: try using words like "above," "under," "between," "beside," "around," "up," and "down" when you describe the location of a person or object!
- Hearing, learning, and using spatial language helps children develop the spatial skills they need in elementary school.





# Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play *Obstacle Course Part 1*.



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Obstacle Course Part 1 | 3

	+ 10-15 min	
Players 1-4 Ages 4	+ : 10-15 min	
GOAL		
Children use spatial langua	ge to move through an obstacle c	ourse.
MATERIALS		
Any medium-to-large items	s (e.g., boxes, furniture)	
One "mystery item" (e.g., to	oy, book) Spatial word ca	ards
VOCABULARY	QUESTIONS	
Over	How did you know where	
Under Around	Can you describe where y	you walked?
Inside		
HOW TO PLAY		

- 2. Say, "Now it's time for you to go through the obstacle course! There is a mystery item at the end of the obstacle course for you to find. You get to choose how to move through the obstacle course by choosing a spatial card at each step."
- 3. Have the child approach the first item in the obstacle course. Hold out the four spatial cards, and ask the child to choose one card. The child navigates the obstacle according to the spatial word.

"You chose *around*! Can you show me how you go *around* the chair?"



- 4. Once the child completes the motion on the spatial card, have them go to the next step of the obstacle course. At each remaining step, have the child choose a spatial word card and navigate the step according to the card.
- 5. At the final step, have the child look for and retrieve the mystery item. Ask,
- Where was the mystery item? Was it inside, next to, or between? Can you describe your path through the obstacle course using spatial words?"

*Note*: You can help children by asking questions like, "Did you jump **over** or **under** the pillow?"

6. Once all children have had a turn in the obstacle course, move on to *Obstacle Course Part 3: The Map*!

#### **TIPS FOR PLAYING**

• Children can use the spatial word cards more than once or not use them at all. Either way, encourage them to talk about how they are moving through the obstacle course.

## WHAT CHILDREN ARE LEARNING

- Hearing, learning, and using spatial language helps children develop the spatial skills they need in elementary school and beyond.
- When children say spatial words *and* act out spatial motions, they are practicing both their mathematics and their language skills.
- Use more challenging spatial descriptions as children are ready.
   For example, use multiple spatial words in the same sentence:
   "Can you pick up the sock? It is *under* the table that is *next to* the window."

MATH TOPICS	
Spatial Relations	Measurement
VIDEO	
	<b>Watch Game Video</b> View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play <i>Obstacle Course Part 2</i> .



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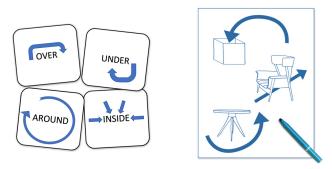




<b>Obstacle Cou</b> The Map	Irse Part 3	YOUNG MATHEMATICIA
Players 1–6 Age	es 4+ 15-20 min	
GOAL		
Draw a map of your obs	tacle course.	
MATERIALS		
Art materials	Spatial word o	cards
✓ ↓ \ \ \ ★★		
	-	
VOCABULARY	QUESTIONS	
Мар	How did you know when	re on your paper to draw that?
Course	Can you describe your n	nap?
Path		
HOW TO PLAY		
<ol> <li>Make sure the obsta set up.</li> </ol>	cle course from Obstacle Course Pai	rt 1 is still
still do the mapping	able to make a large obstacle cour activity! Just create a mini-obstacle using figurines, blocks, spoons, or o	course
away. Say, "You finisl a map of the obstacl	t the entire obstacle course from 1 ned the obstacle course! Now, can e course on paper? Once you draw us walk through the course one las	you draw your map,



3. Children can use the spatial cards to describe their path through the course. Suggest they draw lines or arrows on their paper to show their path.



4. Finally, have children use their maps to walk through the obstacle course. At each step, prompt children to use spatial language to describe the step (e.g., "Now you're at the chair. Where does your map say to go?").

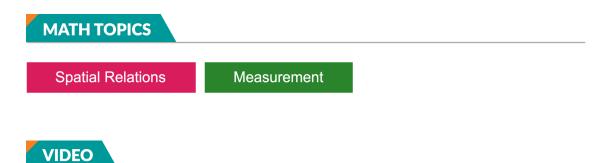
#### **TIPS FOR PLAYING**

• Drawing a map takes a lot of practice and experience. Let children gain this experience without helping too much. As children get more experience, you can talk with them about making a plan for their map before they start drawing.

#### WHAT CHILDREN ARE LEARNING

• Mapmaking is an important skill for preschoolers to practice! Help children learn what maps are by pointing out the maps at bus stops, in stores, and in parks. As you walk around, help children see how the objects and landmarks in front of them correspond to points on a map.

• When children create their own maps, they are representing their 3-D world in a 2-D picture. This helps them build spatial reasoning skills. Encourage them to keep practicing!





## Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play *Obstacle Course Part 3*.



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