Don’t Burn Your Feet

Shape Names | **Parts of Shapes** | **Shape Attributes**

Whole Group | **Small Group** | **Center Time**

Make large shapes on the floor. Describe a rule that focuses on the defining parts of shapes (sides and angles) and properties of shapes (relationships between parts). For example, “jump on a shape with four straight sides and four angles” or “jump on a shape with all sides equal length.” Then children quickly jump on appropriate shapes. Have children explain why the shapes they jumped on were correct examples of the shape (or discuss why they are not correct). State another rule and play again.

Primary Objectives

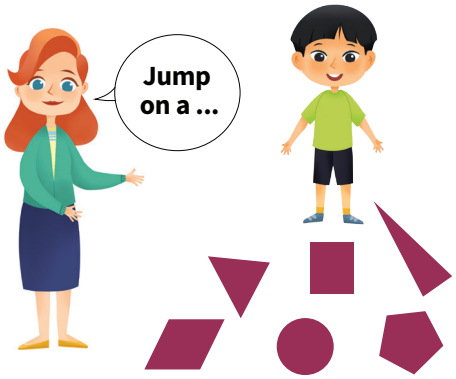
- Understand shape properties, or the relationship between parts of shapes (for example, a square has four *equal-length* sides)
- Use essential attributes to name and describe shapes (for example, a triangle has three straight sides and three angles)
- Understand angle size (for example, bigger or smaller angle, right angle)

Materials

- Painter’s tape or sidewalk chalk
- Sample shape layout handout with sample layouts of shapes to put or draw on the ground
- Suggested rules handout to read to students to tell them where to jump
- White board and marker (optional)

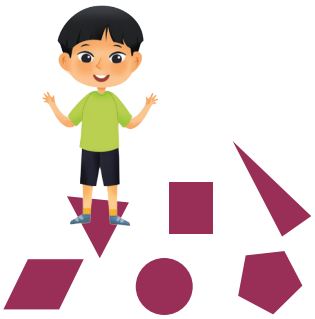
How to Play the Activity

The activity step icons below outline the steps of the activity to the whole group. Find a sample script for teachers to use below.



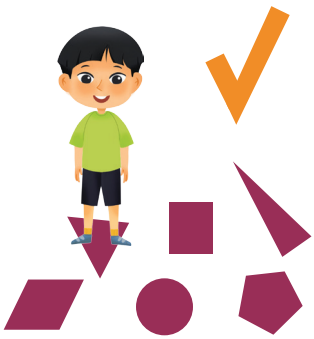
Step 1

Teacher states a rule indicating which shapes are “safe” to jump on.



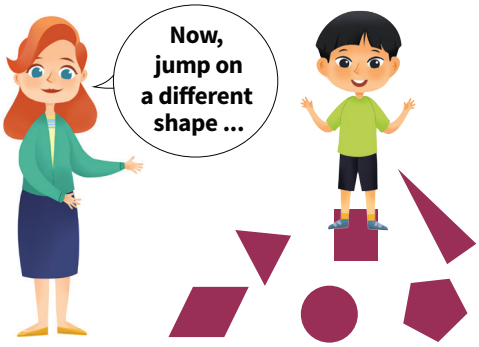
Step 2

Children jump on a shape based on the rule.



Step 3

Teacher checks children’s chosen shapes.



Step 4

Teacher states another rule and repeats steps 1-3.

Don't Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Teacher's Guide

Instructions for introducing the activity to the Whole Group

Activity Set-Up

- Outline or draw shapes on the floor or ground ahead of time, using the sample shape layout handout for shape ideas based on children's knowledge of shapes. We recommend including a minimum of 10 shapes, with one per child if you have more than 10 children in your group.
- **To make the math easier,** use familiar shapes (such as circles, triangles, squares, rectangles) or use only easier examples and non-examples (such as triangles vs. circles and squares) for shapes.
- **To make the math harder,** use less familiar shapes (such as hexagons, trapezoids) or use more challenging examples and non-examples.

Activity Warm-Up

- ***Let's practice some shapes! Ready… here we go!***

- Show examples of shapes you will be using during the activity (for example, from paper shape sets or drawings on a white board), name the shapes that will be included in the activity, and describe some of their key properties (such as four right angles, two pairs of parallel sides).
- If you're introducing new shapes to children, consider using the shape glossary for language and tips.

Don't Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Introduce the Activity

- ***We're going to pretend that our classroom floor (or playground if outside) and some of these shapes are hot lava! So you don't burn your feet, you have to jump (step) on the safe shapes. This activity gets you thinking more about the parts that make up a shape, for example, whether the sides are the same length, what kind of angles the shape has, and other things like that.***
- ***I will describe which shapes are safe. You figure out which shapes fit the rule and then jump on them so you don't burn your feet!***

- Choose two to three children to help demonstrate the activity.

Don't Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Model the Activity

- ***As an example*, Shapes with four right angles are the safe shapes! Jump on all the shapes that have four right angles so you don't burn your feet!**

- Present a rule focused on shape properties and attributes for children to jump on a particular shape. Use the suggested rules handout for recommended rule ideas based on children's knowledge of shapes.
- Children respond by jumping on the appropriate shapes. There may be more than one child on each shape. If, after children choose a shape, there are still shapes available that fit the rule, encourage some children to find another shape.
- To make the executive function (EF) easier, before jumping, have children point to which shape(s) they will jump on and which will "burn their feet."
- You can also use Stop and Go Mediator Cards to separate "planning" time (when children state the rule) from "action" time (when children start to move to shapes). Hold up the red stop card while children plan their next move to their next shape, and hold up the green card to cue children to move.
- **To make the EF harder,** in addition to giving a rule about what shape to jump on, tell children to move in a certain way (for example, Tiptoe to the circles or Hop on the squares).
- Use a NOT rule (for example, *Jump on shapes that are not triangles*).
- **To make the math and EF harder,** use an AND rule with two property descriptions (for example, *Jump on shapes with more than three sides and two* or *more right angles*).
- Use an EITHER/OR rule (for example, *Jump on shapes with more than three sides* or *all right angles*).

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▪ ***The rest of us need to watch them to make sure they are not burning their feet. Let's tell them if they do!***	▪ To keep the children who are not in the activity engaged, ask them to make sure the children jumping are jumping on the correct shapes, and encourage them to tell them if they are. ▪ **To make the math easier,** talk about the attributes and properties of the shape focused on in the rule and show examples (for example, with drawings on a white board). ▪ **To make the math and EF easier,** draw a few examples of shapes to jump on (that fit the rule) and some to avoid jumping on (that don't fit the rule) on a white board and have children tell you if the drawn shapes fit the description or not. Refer to the shape glossary handout for specific shape ideas. ▪ **To make the math harder,** challenge children to tell you exactly why the shape they chose is appropriate, naming some of the attributes of the shape class (for example, *I know it's a triangle because it has three sides*).
	▪ Continue with different groups of children and different shape rules until all children have had a turn or as time allows.

Don’t Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Summary of Activity Adaptations

For quick reference, here is a summary of all the available adaptations to make Don’t Burn Your Feet easier or harder to accommodate the needs of your students. Whether the adaptation is easier or harder depends on each student’s math or executive function skills.

	Make It Easier	Make It Harder
Math	■ Use familiar shapes (such as circles, triangles, squares, rectangles). ■ Use only easier examples and nonexamples (such as triangles vs. circles and squares) for shapes. ■ Talk about the properties and attributes of the shape focused on in the rule and show examples (for example, from paper shape sets or drawings on a white board).	■ Use less familiar shapes (such as hexagons, trapezoids). ■ Use more challenging examples and non-examples. ■ Challenge children to tell you exactly why the shape they chose is appropriate, naming some of the attributes of the shape class (for example, *I know it’s a triangle because it has three sides*).
EF	■ Before jumping, have children point to which shape(s) they will jump on and which will “burn their feet.” ■ Use Stop and Go Mediator Cards to separate “planning” time (when children state the rule) from “action” time (when children start to move to shapes). Hold up the red stop card while children plan their next move to their next shape, and hold up the green card to cue children to move.	■ In addition to giving a rule about what shape to jump on, tell children to move in a certain way (for example, *Tiptoe to the circles* or *Hop on the squares*). ■ Use a rule with negation: a NOT rule (for example, *Jump on shapes that are not triangles*).
Math & EF	■ Draw a few examples of shapes to jump on (that fit the rule) and some to avoid jumping on (that don’t fit the rule) on a white board and have children tell you whether or not the drawn shapes fit the description.	■ Use an intersection rule: an AND rule with two property descriptions (for example, *Jump on shapes with more than three sides and two or more right angles*). ■ Use a union rule: an EITHER/OR rule (for example, *Jump on shapes with more than three sides or all right angles*).

Don’t Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Are some students ready for more challenge? Try the adaptations provided for Whole Group.

Don't Burn Your Feet

Shape Names | Parts of Shapes | **Shape Attributes**

Whole Group | **Small Group** | Center Time

Make large shapes on the floor. Describe a rule that focuses on the defining parts of shapes (sides and angles) and properties of shapes (relationships between parts). For example, "jump on a shape with four straight sides and four angles" or "jump on a shape with all sides equal length." Then children quickly jump on appropriate shapes. Have children explain why the shapes they jumped on were correct examples of the shape (or discuss why they are not correct). State another rule and play again.

Primary Objectives

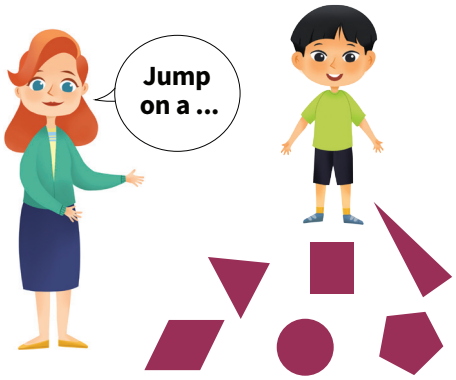
- Understand shape properties, or the relationship between parts of shapes (for example, a square has four *equal-length* sides)
- Use essential attributes to name and describe shapes (for example, a triangle has three straight sides and three angles)
- Understand angle size (for example, bigger or smaller angle, right angle)

Materials

- Painter's tape or sidewalk chalk
- Sample shape layout handout with sample layouts of shapes to put or draw on the ground
- Suggested rules handout to read to students to tell them where to jump
- White board and marker (optional)

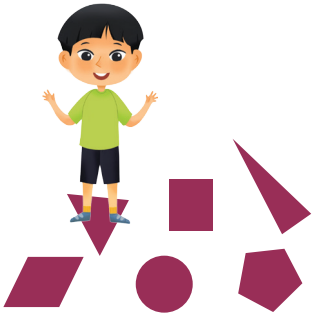
How to Play the Activity

For small groups, we suggest four children arranged groups of four with a teacher present to provide guidance. The activity step icons below outline the steps of the activity to the whole group. Find a sample script for teachers to use below.



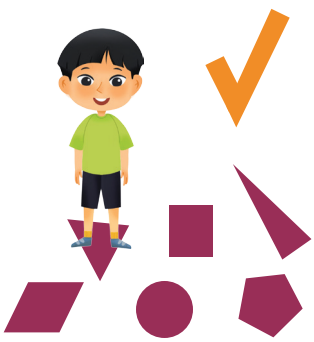
Step 1

Teacher states a rule indicating which shapes are "safe" to jump on.



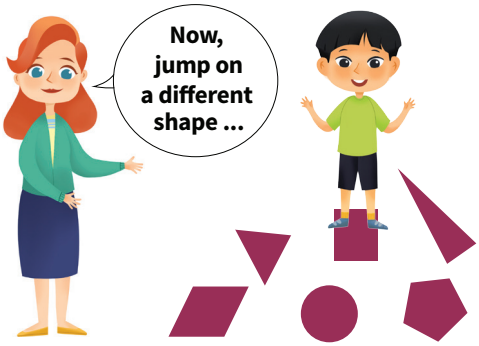
Step 2

Children jump on a shape based on the rule.



Step 3

Teacher checks children's chosen shapes.



Step 4

Teacher states another rule and repeats steps 1-3.

Don’t Burn Your Feet

Shape Names
Parts of Shapes
Shape Attributes

Whole Group
Small Group
Center Time

Teacher’s Guide

Instructions for introducing the activity to Small Groups and preparing to play in groups of four

Activity Set-Up

- Outline or draw shapes on the floor or ground ahead of time, using the Don’t Burn Your Feet shapes handout for shape ideas based on children’s knowledge of shapes. We recommend including a minimum of 10 shapes. Both pairs of children will use the same shapes during play.
- **To make the math easier,** use familiar shapes (such as circles, triangles, squares, rectangles) or use only easier examples and non-examples (such as triangles vs. circles and squares) for shapes.
- **To make the math harder,** use less familiar shapes (such as hexagons, trapezoids) or use more challenging examples and non-examples.

Introduce the Activity

- ***We’re going to pretend that our classroom floor (or playground if outside) and some of these shapes are hot lava! So you don’t burn your feet, you have to jump (step) on the safe shapes. This activity gets you thinking more about the parts that make up a shape, for example whether the sides are the same length, what kind of angles the shape has, and other things like that.***
- ***I will describe which shapes are safe. You figure out which shapes fit the rule and then jump on them so you don’t burn your feet!***

Don't Burn Your Feet

Shape Names | Parts of Shapes | **Shape Attributes**

Whole Group | **Small Group** | Center Time

Model the Activity

■ ***As an example*, Shapes with four sides of equal lengths are the safe shapes! Jump on all the shapes that have four sides of equal lengths so you don't burn your feet!**	■ Present a rule that focuses on the *shape properties and attributes*. Use the Don't Burn Your Feet rules handout for recommended rule ideas based on children's knowledge of shapes. ■ For this version, focus on the properties and attributes of shapes. Properties are the *relationships between parts*, such as sides *the same length*, vertices all *the same size*, sides that *make a right angle*, and *parallel sides*. ■ Children respond by jumping on the appropriate shapes. There may be more than one child on each shape. If, after children choose a shape, there are still shapes available that fit the rule, encourage some children to find another shape. ■ **To make the executive function (EF) easier,** before jumping, have children point to which shape(s) they will jump on and which will "burn their feet." ■ You can also use Stop and Go Mediator Cards to separate "planning" time (when children state the rule) from "action" time (when children start to move to shapes). Hold up the red stop card while children plan their next move to their next shape, and hold up the green card to cue children to move. ■ **To make the EF harder,** in addition to giving a rule about what shape to jump on, tell children to move in a certain way (for example, *Tiptoe to the circles* or *Hop on the squares*). ■ Use a rule with negation: a NOT rule (for example, *Jump on shapes that are not triangles*). ■ To make the math and EF harder, use an intersection rule: an AND rule with two property descriptions (for example, *Jump on shapes with more than three sides and two or more right angles*). ■ Use a union rule: an EITHER/OR rule (for example, *Jump on shapes with more than three sides or all right angles*).
■ ***Now, freeze in place!***	■ Have children remain on the shapes they chose.

Don't Burn Your Feet

Shape Names | Parts of Shapes | **Shape Attributes**

Whole Group | **Small Group** | Center Time

■ ***How do you know the shape you jumped on is a safe shape?*** ■ ***Does this shape have [the property or attribute stated in the rule]?***	■ Have children explain why the shapes they jumped on were correct. ■ If children are incorrect, ask other children to discuss which shapes fit the rule and why, and allow children to attempt to self-correct and try again. If you need to intervene, direct their attention to what does and does not fit the description, gesturing to specific parts of the shape. ■ **To make the math easier,** talk about the attributes and properties of the shape focused on in the rule and show examples (for example, from paper shape sets or drawings on a white board). ■ **To make the math and EF easier,** draw a few examples of shapes to jump on (that fit the rule) and some to avoid jumping on (that don't fit the rule) on a white board and have children tell you if the drawn shapes fit the description or not. Refer to the shape examples and non-examples handout for specific shape ideas. ■ **To make the math harder,** challenge children to tell you exactly why the shape they chose is appropriate, naming some of the attributes of the shape class (for example, I know it's a triangle because it has three sides).
	■ Repeat with additional rules.

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Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Did some students need more support or more challenge? Try some of the adaptations provided for Small Group. Continue working in small groups with teacher support until students can comfortably play with minimal teacher guidance. Then have students practice the activity independently in Centers.