

What Can this Material Do?

Use this tool to introduce children to new materials.

Step 1

Introduce a new material to the group in a playful way (see Tips and Variations).

Step 2

Give a small piece or part of the material to each child to explore. Invite children to share observations or connections. Record what they say. Some questions you might ask are:

- *What do you already know about this material?*
- *What does it look, sound, or feel like? Explore with all your senses.*
- *Have you seen it before? Where?*
- *What have you used it for?*

Step 3

Invite children to use their hands and bodies as tools to find out as much as they can about all the things the materials can do. Model a playful, curious tone. Ask children to use their scientists' and poets' eyes. What about the material would they like to share with someone else?

Step 4

As children explore the material, highlight the novel ways children use it.

- *What do you call what you just did to the material?*
- *What else might you do?*
- *What might happen if...?*

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Step 5

Encourage children to try the methods, or direct them to the discoveries, of other children (using the children's words), e.g.:

Child: *It crinkles!*

Teacher: *Did anyone else hear that crinkle? How did you move the material to make that sound? Share it with us so we can try it too.*

Child: *Look at this!*

Teacher: *What did you do to make it do that? Teach us how you did it. What do you want to call what you just made the material do? Invite children to name their new shapes or discoveries (e.g., a snake, a spiral, etc.).*

Emphasize that you are not focusing on making things, but rather on finding out all that a material can do.

Step 6

Record children's discoveries and language (descriptive words, attributes, verbs, made-up words) on a large piece of paper. Leave space for additional discoveries as children explore over time. This documentation serves as a record of the endless ways in which a single material can be described or transformed, and a visual reference for future exploration.

Step 7

Reflect on the learning experience. Gather children before clean-up, while they are still thinking about the experience. Ask what surprised them about the material.

- *What do you know now that you didn't know before about ____ ?*
- *How can you imagine using this material now that we've seen what it can do?*
- *What are you excited to try next with this material?*

For video examples and reflections on practices that inspire inventiveness, become an Opal School Online Sustaining Member at learning.opalschool.org.



Children need to be able to think outside the box and to make new discoveries by exploring the possibilities of materials.

Exploring a material together involves searching for possibilities, sharing provisional ideas, listening to one another, taking risks, and collaborating in the face of uncertainty. It is often as much about establishing the value of collaboration as learning about what a material can do. This kind of play extends beyond the use of paper and pencil to communicating and expressing oneself with a variety of materials.

Suggested Time Frame

45 minutes - 1 hour



When and How

Use this tool at the beginning of the year, or whenever you introduce a material that is new to most of the group.

Tips and Variations

- Create a chart as a reference for children's discoveries about what the material can do. Consider starting with one of the following materials:
 - cardboard
 - blocks
 - aluminum foil
 - clay
 - paper
 - wire
 - pastels
 - tape
 - fabric
- Build excitement or surprise by introducing the material in a playful way, e.g.,
 - I'd like you to meet a new material ____.
 - I brought a special treasure to play with today!
 - In this basket, I have something that you may have seen before — ____.
 - Today we are going to explore even more things it can do!
- Another option for reflection is to use the Project Zero thinking routine: *I used to think... but now I think...*

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