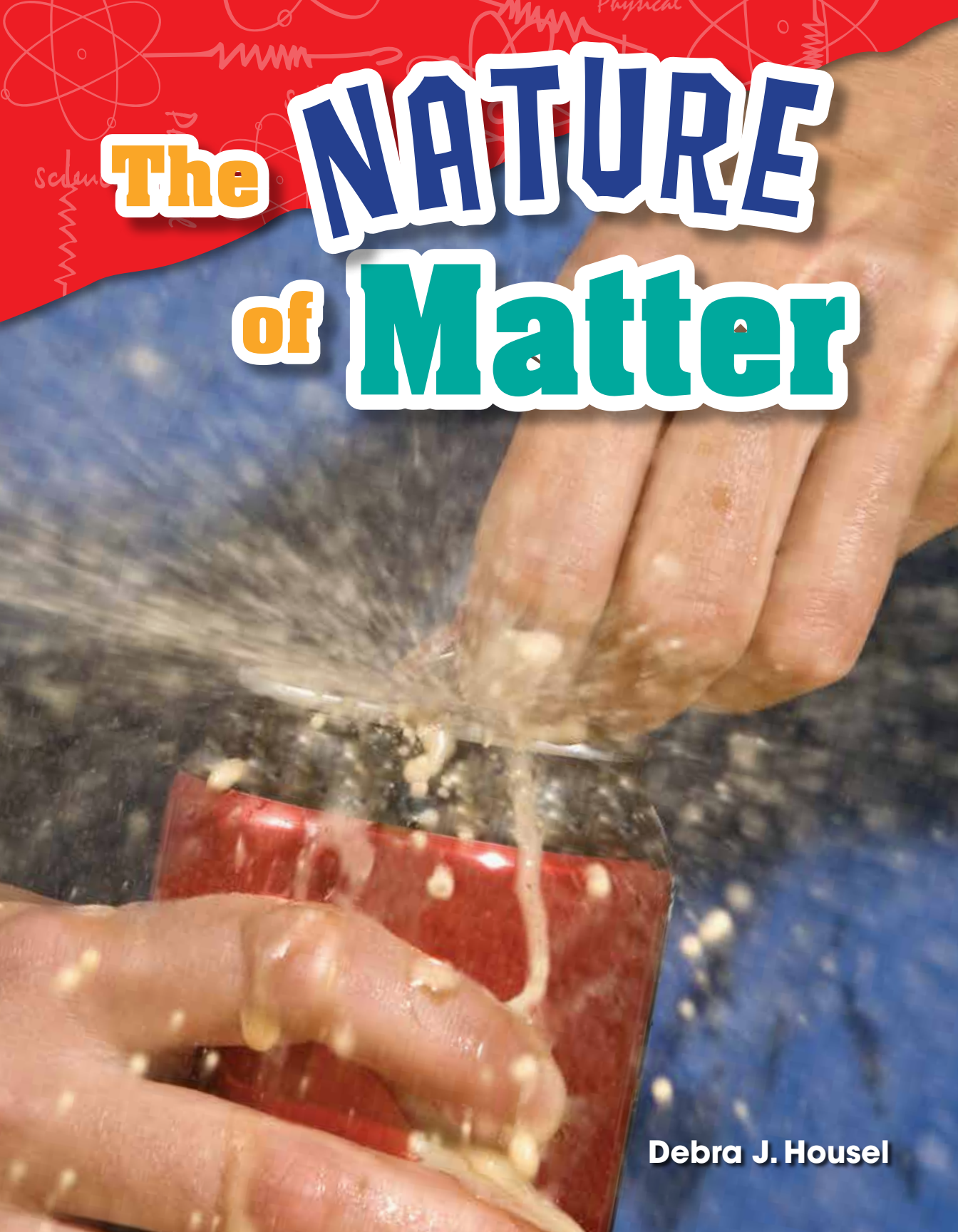
The NATURE of Matter



Debra J. Housel

For teachers' inspection ONLY

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Matter Is All Around You

Everything is made of matter. Everything! Matter can be something you see or something invisible.

You are made of matter. The air you breathe is matter. The water you drink is matter. The chair beneath you is made of matter, too.

Solids, liquids, and gases have **mass**. Mass is the amount of material in an object. They all have **volume**, too. That is the amount of space that an object takes up.



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This girl is made of matter. Her pinwheels and the air that makes them spin are matter, too.



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Solids Are Matter

A solid can be hard or soft. It can be big or small. Some solids are tiny. Salt, sand, and powder are tiny solids. Walls and roads are solids that are not so tiny. They are huge.

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Diamond is the hardest natural material.

Carbon Is Unusual

Carbon is a solid. It can be a hard diamond or a soft pencil lead.

A solid has its own shape. If you put it into a container, it will not **conform** to the shape of the container. So if you fill a jar with plastic beads, each bead keeps its own shape.

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Solids Can Change

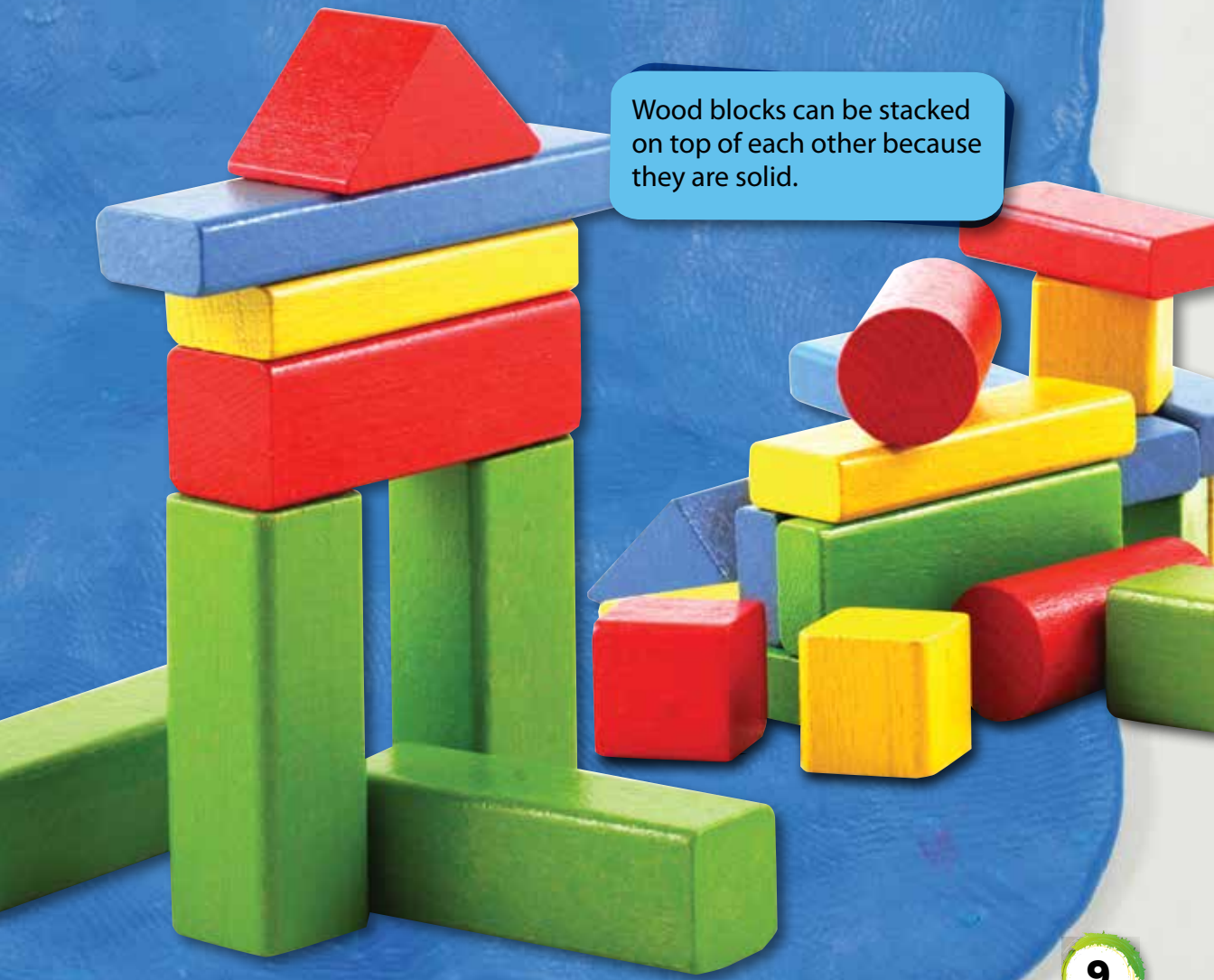
Cutting a solid changes its size and shape. Some solids can be bent or twisted. For example, a rope is a solid. You can make it curved or straight. Clay can be made into a shape. Then, it keeps that shape until you change it again.



Play dough can be molded into many different shapes.

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Solids can be joined to form a new solid. This happens when you put building blocks together to make a tower. Solids can be taken apart, too. This happens when you knock down the tower.



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Let's Do Science!

What states of matter can you observe? See for yourself!

What to Get

- ❍ drinking glass
- ❍ large bowl
- ❍ paper napkin
- ❍ water

