

Light and Shadow

Learning Objective:

To investigate what shadows are and why they are formed.

NEXT

What
have we found out
so far about light
and dark?



BACK

NEXT



BACK

Where is the shadow in this picture?

Why is the shadow there?



NEXT



BACK

Where is the shadow in this picture?

Why is the shadow there?



NEXT



What's making this shadow?

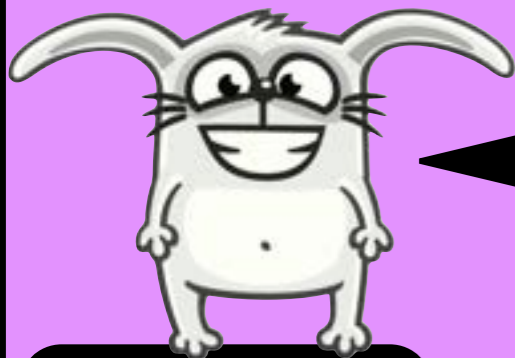
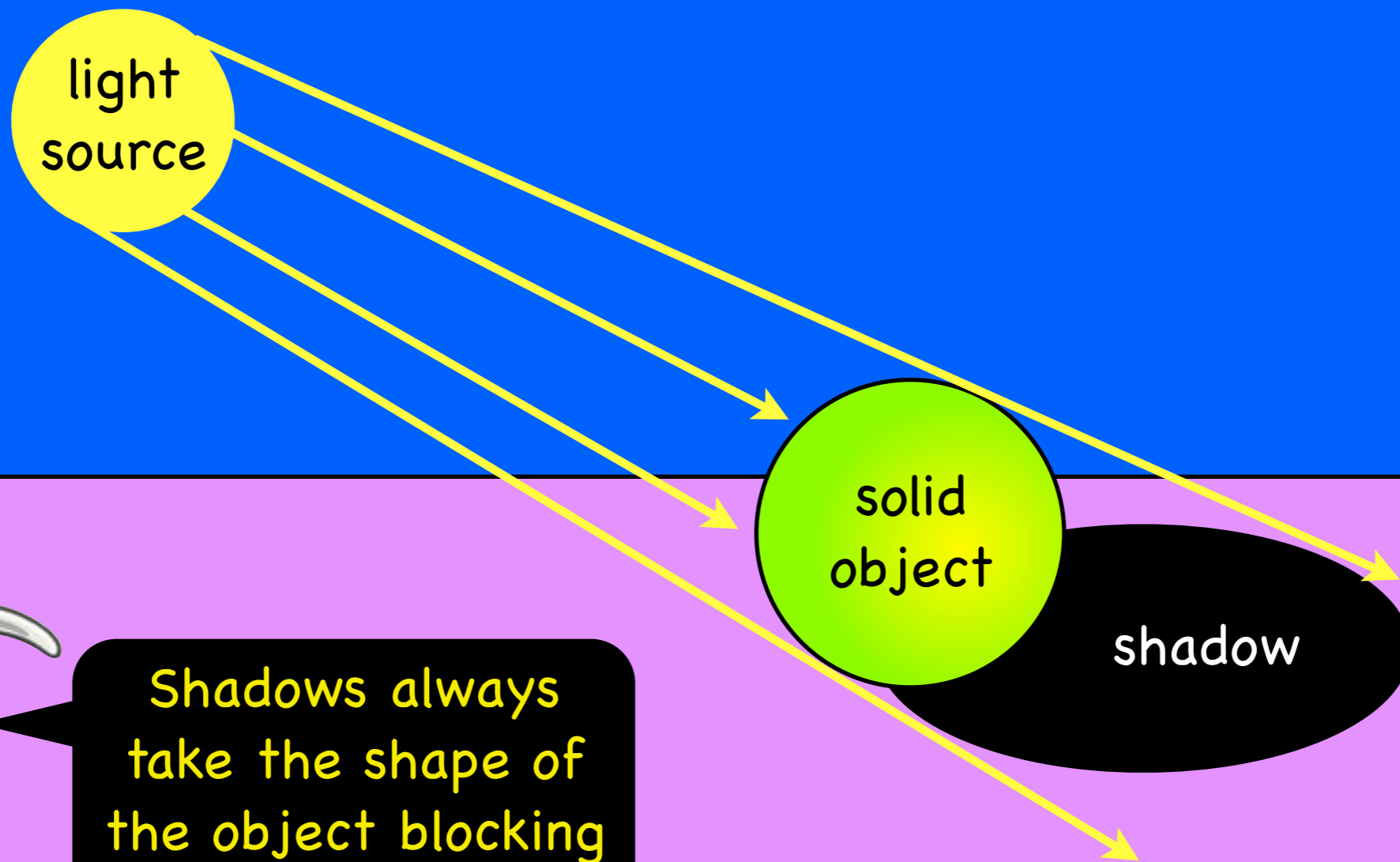
BACK

How did the shadow get there?



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Shadows are formed when light is blocked by an object. This is because light can only travel in straight lines. It cannot bend. If an object gets in the light's path, a shadow will form because the light cannot get through the object.



BACK

Shadows always take the shape of the object blocking the light.

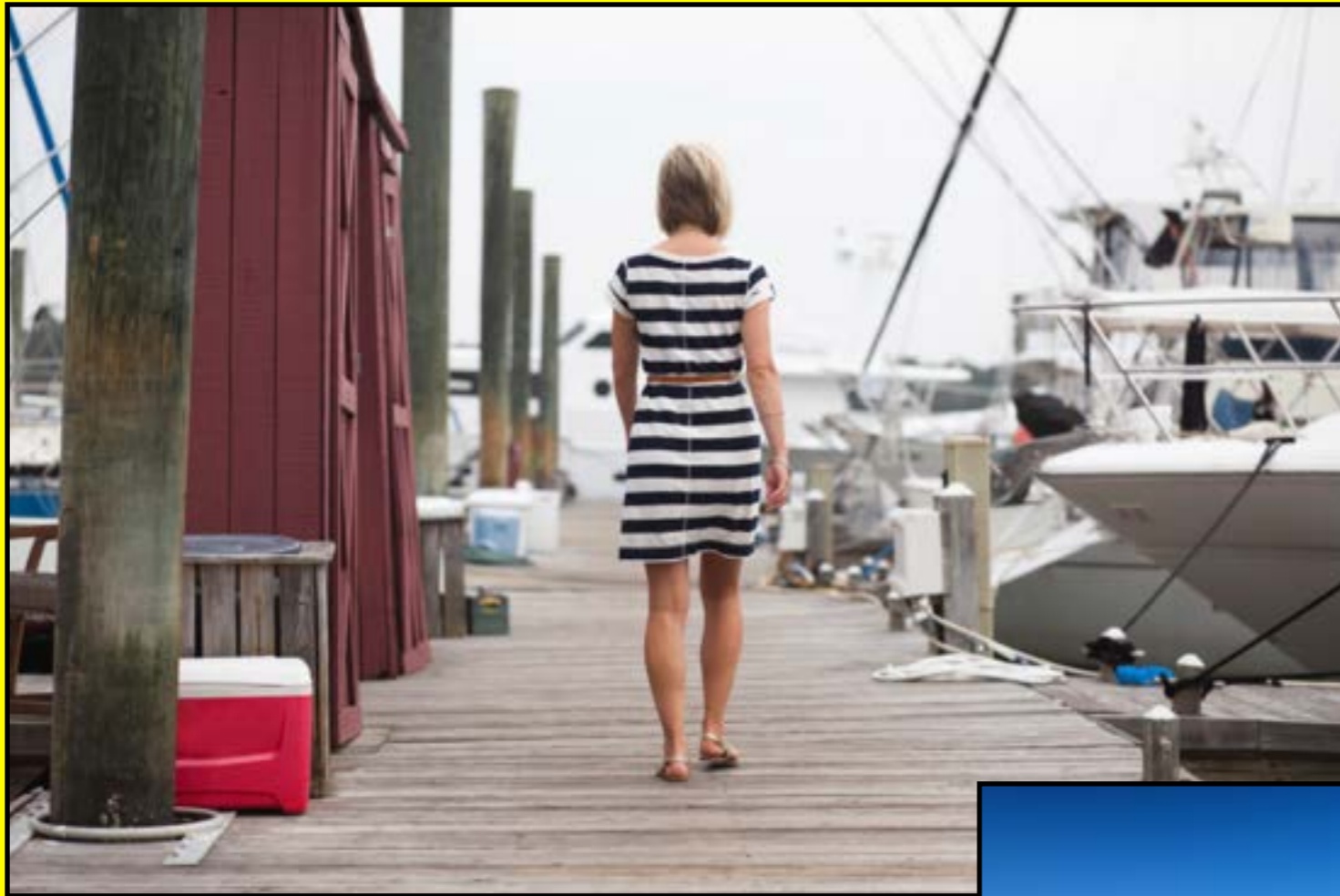
NEXT

Do you think
you would have more
shadows on a cloudy
day or on a sunny
day? Why?



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On very cloudy days there are no shadows as the light from the Sun has already been blocked by the clouds.

There are shadows on sunny days when there is nothing else to block the Sun's light.



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Do you think
all objects cast a
shadow?

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OPAQUE

If an object is opaque it means that it will not allow any light to pass through it. This means that it will cast a dark shadow because it blocks all of the light.

TRANSPARENT

If an object is transparent it means that it allows light to pass through it. A transparent object does not cast a shadow because it does not block the light.

TRANSLUCENT

If an object is translucent it means that it does allow a little light to pass through it. A translucent object will cast a faint shadow because it only partially allows the light to pass through it.

Can you think of any objects that are transparent, translucent and opaque?



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