

Glass is a favored building material for modern architecture, yet it is also very dangerous for wild birds. Because they often cannot distinguish between glass and open air, millions of birds are harmed every year when they try to fly through glass windows. There are, however, several solutions that responsible businesses can use to prevent injuries to birds.

One-Way Glass One solution is to replace the regular, clear glass with one-way glass that is transparent in only one direction. The occupants of the building can see out, but birds and others cannot see in. If birds cannot see through a window, they will understand that the glass forms a solid barrier and will not try to fly through it.

Colorful Designs A second solution is to paint colorful lines or other designs on regular window glass. For example, a window could have a design of thin stripes painted over the glass. People would still be able to see through the openings in the design where there is no paint, while birds would see the stripes and thus avoid trying to fly through the glass. Architects can be encouraged to include colorful painted patterns on glass as part of the general design of buildings.

Magnetic Field The third solution is to create an artificial magnetic field to guide birds away from buildings. Humans use an instrument called a magnetic compass to determine directions—either north, south, east, or west. Bird research has shown that birds have a natural ability to sense Earth's magnetic fields; this ability works just like a compass, and it helps birds navigate in the right direction when they fly. A building in a bird flight path can be equipped with powerful electromagnets that emit magnetic signals that steer birds in a direction away from the building.

Now listen to part of a lecture on the topic you just read about. None of the solutions you've read about will effectively stop birds from getting injured.

First, replacing regular glass with one-way glass. Well, the problem with one-way glass is that to the bird on the outside, a one-way glass surface reflects just like a mirror. And a surface that reflects like a mirror is just as bad as regular glass for birds because birds don't understand mirrors. If they see a reflection of the sky in a mirror or of a tree in a mirror, they think the reflection is the sky or is the tree, and they'll fly right into them.

The second solution—painting colorful patterns like stripes on regular glass—also has problems. As the reading said, these designs include openings so people inside the buildings can see out. But birds will perceive these unpainted openings as open holes. And if birds think that they're seeing holes, they will try to fly right through them. To prevent birds from doing this, the unpainted spaces in a window would have to be extremely small. But that would then make the rooms of the buildings too dark for the people inside them.

The third solution, creating an artificial magnetic field, won't work very well either. While it's true that birds use Earth's magnetic field to help them navigate, they use this only when they're traveling very long distances. For example, if a

bird is migrating from a cold country to a warm one before winter, it will use its magnetic sense to figure out which way it should fly. But this ability isn't used to go over short distances, such as going from one side of the city to another. For short trips, birds use their eyes and the brightness of light to determine where to go. So magnetic signals from buildings won't have much effect.

Summarize the points made in the lecture, being sure to explain how they cast doubt on the specific solutions proposed in the reading passage.

Do you agree or disagree with the following statement? Workers are more satisfied when they have many different types of tasks to do during the workday than when they do similar tasks all day long. Use specific reasons and examples to support your answer.