

Review of Previous Lesson

- State as many Vocabulary words and Learning Objectives that you remember from the last lesson as you can.
- Remember to grade yourself from 0 - 3.

1

Electric Fields

Electrostatics

2

Learning Objectives

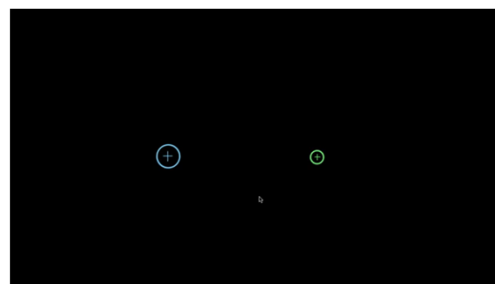
Content:	Start	End
Recognize field lines represent the force experienced by a positively charged particle.		
Diagram the electric field between two charged particles using field line conventions.		
Compare and contrast the force experienced by and motion of a charged particle in an electric field based on field lines.		
Explain the cause of electric fields.		
Qualitatively discuss electric field strength based on number of field lines and field line density.		

3

Electric field definition

[Khan Academy](https://www.khanacademy.org/science/physics/electric-charge-electric-force-and-voltage/electric-field/v/electric-field-definition)

<https://www.khanacademy.org/science/physics/electric-charge-electric-force-and-voltage/electric-field/v/electric-field-definition>

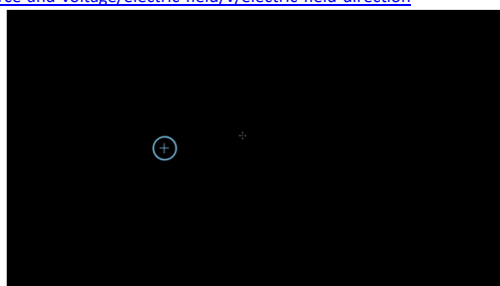


4

Electric field direction

[Khan Academy](https://www.khanacademy.org/science/physics/electric-charge-electric-force-and-voltage/electric-field/v/electric-field-direction)

<https://www.khanacademy.org/science/physics/electric-charge-electric-force-and-voltage/electric-field/v/electric-field-direction>

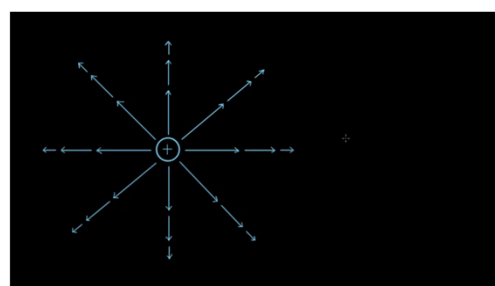


5

Magnitude of electric field created by a charge

[Khan Academy](https://www.khanacademy.org/science/physics/electric-charge-electric-force-and-voltage/electric-field/v/magnitude-of-electric-field-created-by-a-charge)

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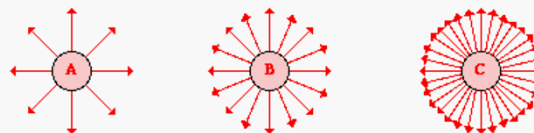
6

Electric Field Simulator

- <http://www.physicsclassroom.com/Physics-Interactives/Static-Electricity/Electric-Field-Lines/Electric-Field-Lines-Interactive>

7

Density of Lines in Patterns

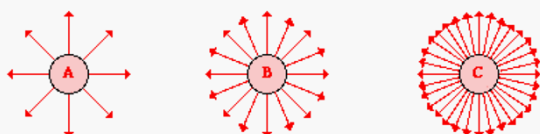


Which has the largest quantity of charge? A, B or C?
Which has the smallest quantity of charge?

<http://www.physicsclassroom.com/class/estatics/Lesson-4/Electric-Field-Lines>

8

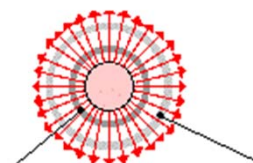
Density of Lines in Patterns



The density of electric field lines around these three objects reveals that the quantity of charge on C is greater than that on B which is greater than that on A.

<http://www.physicsclassroom.com/class/estatics/Lesson-4/Electric-Field-Lines>

9



Where is the electric field the greatest?

<http://www.physicsclassroom.com/class/estatics/Lesson-4/Electric-Field-Lines>

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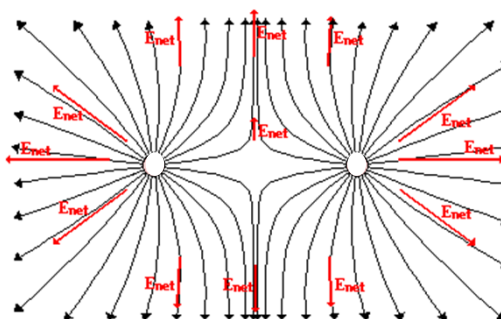
Field lines are
closer together
in this region.

Field lines are
further apart
in this region.

<http://www.physicsclassroom.com/class/estatics/Lesson-4/Electric-Field-Lines>

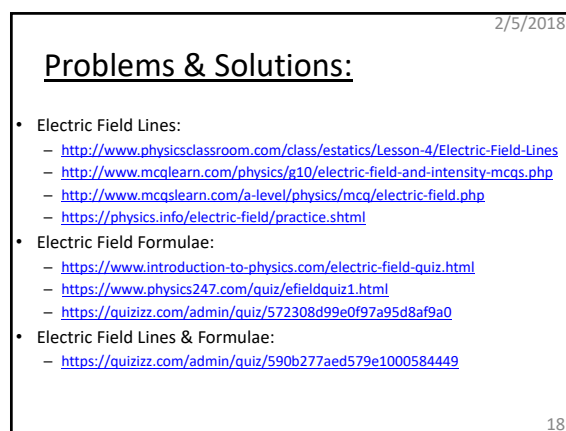
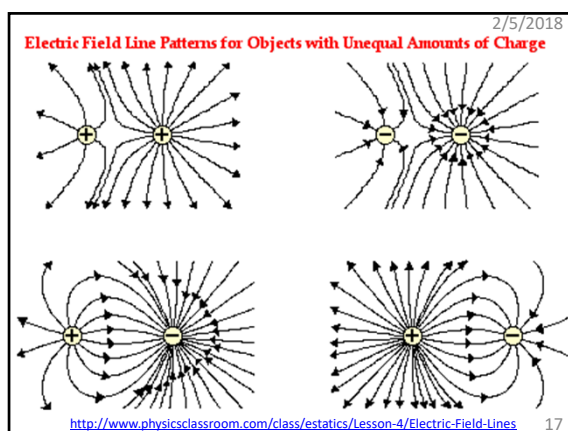
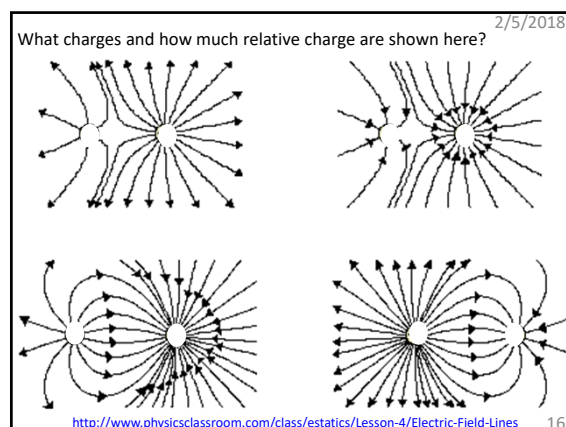
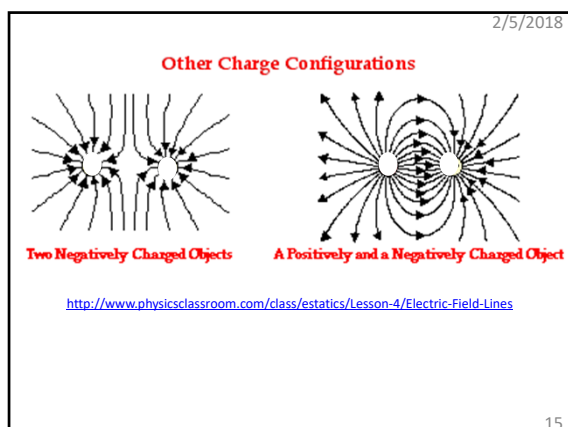
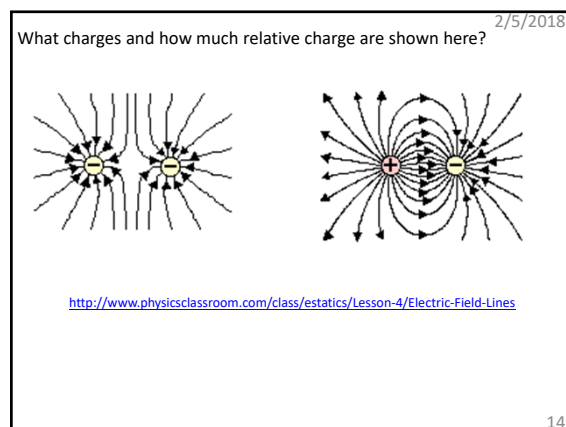
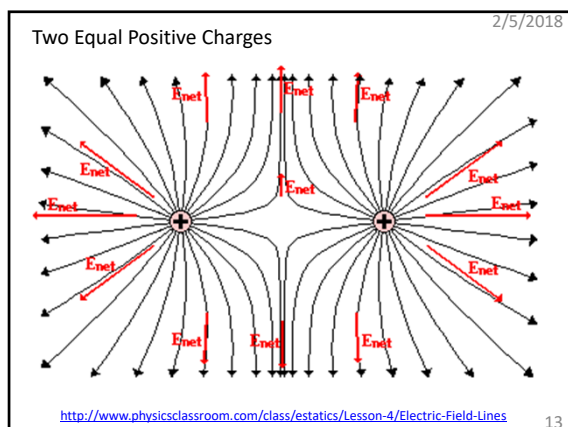
11

What charges and how much relative charge are shown here?



<http://www.physicsclassroom.com/class/estatics/Lesson-4/Electric-Field-Lines>

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2/5/2018

Grade yourself.

- Grade yourself on the vocabulary and learning objectives of the presentation.

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