



WHOOSH! Patrol- Blackhawks

	Austin Adams	Ethan Northup	Evan White	Ian Kerby	Nathen Hebert	Nicko Moran	Noah Dynka	Ryan Dynka
1. Choose A or B or C and complete ALL the requirements.								
A. Watch about three hours total of engineering-related shows or documentaries that involve motion or motion-inspired technology. Then do the following:								
1. Make a list of at least five questions or ideas from the show(s) you watched.								
2. Discuss two of the questions or ideas with your counselor.								
B. Read (about three hours total) about motion or motion-inspired technology. Then do the following:								
1. Make a list of at least two questions or ideas from each article.								
2. Discuss two of the questions or ideas with your counselor.								
C. Do a combination of reading and watching (about three hours total). Then do the following:								
1. Make a list of at least two questions or ideas from each article or show.								
2. Discuss two of the questions or ideas with your counselor.								
2. Choose ONE merit badge from the following list. (Choose one you have not already used for another Nova award.) After completion, discuss with your counselor how the merit badge you earned uses engineering.								
Archery								
Inventing								
Aviation								
Model Design and Building								
Composite Materials								
Railroading								
Drafting								
Rifle Shooting								
Electronics								
Robotics								
Engineering								
Shotgun Shooting								
3. Do ALL of the following:								
A. Make a list or drawing of the six simple machines.								
B. Be able to tell your counselor the name of each machine and how each machine works.								
C. Discuss the following with your counselor:								
1. The simple machines that were involved with the motion in your chosen merit badge (Hint: Look at the moving parts of an engine to find simple machines.)								
2. The energy source causing the motion for the subject of your merit badge								
3. What you learned about motion from earning your merit badge								
4. Choose A or B and complete ALL the requirements.								
A. Visit an amusement park. Then discuss the following with your counselor:								
1. The simple machines present in at least two of the rides								
2. The forces involved in the motion of any two rides								
B. Visit a playground. Then discuss the following with your counselor:								
1. The simple machines present in the playground equipment								



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	Austin Adams	Ethan Northup	Evan White	Ian Kerby	Nathen Hebert	Nicko Moran	Noah Dynka	Ryan Dynka
2. The forces involved in the motion of any two playground fixtures								
5. Do the following:								
A. On your own, design one of the following and include a drawing or sketch: an amusement park ride OR a playground fixture OR a method of transportation.								
B. Discuss with your counselor:								
1. The simple machines present in your design								
2. The energy source powering the motion of your creation								
6. Discuss with your counselor how engineering affects your everyday life.								



WHOOSH! Patrol- Blue Pheonix

1. Choose A or B or C and complete ALL the requirements.

A. Watch about three hours total of engineering-related shows or documentaries that involve motion or motion-inspired technology. Then do the following:

1. Make a list of at least five questions or ideas from the show(s) you watched.

2. Discuss two of the questions or ideas with your counselor.

B. Read (about three hours total) about motion or motion-inspired technology. Then do the following:

1. Make a list of at least two questions or ideas from each article.

2. Discuss two of the questions or ideas with your counselor.

C. Do a combination of reading and watching (about three hours total). Then do the following:

1. Make a list of at least two questions or ideas from each article or show.

2. Discuss two of the questions or ideas with your counselor.

2. Choose ONE merit badge from the following list. (Choose one you have not already used for another Nova award.) After completion, discuss with your counselor how the merit badge you earned uses engineering.

Archery

Inventing

Aviation

Model Design and Building

Composite Materials

Railroading

Drafting

Rifle Shooting

Electronics

Robotics

Engineering

Shotgun Shooting

3. Do ALL of the following:

A. Make a list or drawing of the six simple machines.

B. Be able to tell your counselor the name of each machine and how each machine works.

C. Discuss the following with your counselor:

1. The simple machines that were involved with the motion in your chosen merit badge (Hint: Look at the moving parts of an engine to find simple machines.)

2. The energy source causing the motion for the subject of your merit badge

3. What you learned about motion from earning your merit badge

4. Choose A or B and complete ALL the requirements.

A. Visit an amusement park. Then discuss the following with your counselor:

1. The simple machines present in at least two of the rides

2. The forces involved in the motion of any two rides

B. Visit a playground. Then discuss the following with your counselor:

1. The simple machines present in the playground equipment

Chase Seeberger

Conner Godfrey

Conner Maxey

Dexter Siroky

Kyle Hardy

Luke Farrell

Sam Burch

Sean Taylor

Trey Oletski

Zane McClish



WHOOSH! Patrol- Blue Pheonix

2. The forces involved in the motion of any two playground fixtures

5. Do the following:

A. On your own, design one of the following and include a drawing or sketch: an amusement park ride OR a playground fixture OR a method of transportation.

B. Discuss with your counselor:

1. The simple machines present in your design

2. The energy source powering the motion of your creation

6. Discuss with your counselor how engineering affects your everyday life.

Chase Seeberger

Conner Godfrey

Conner Maxey

Dexter Siroky

Kyle Hardy

Luke Farrell

Sam Burch

Sean Taylor

Trey Oletski

Zane McClish



WHOOSH! Patrol- Raven

	Aaron Sauer	Brian Guiana	Cameron Uli	Chase Sullivan	Joshua Lindgren	Mark Szobonya	Mathew Kemper	Ryan Morgan
1. Choose A or B or C and complete ALL the requirements.								
A. Watch about three hours total of engineering-related shows or documentaries that involve motion or motion-inspired technology. Then do the following:								
1. Make a list of at least five questions or ideas from the show(s) you watched.								
2. Discuss two of the questions or ideas with your counselor.								
B. Read (about three hours total) about motion or motion-inspired technology. Then do the following:								
1. Make a list of at least two questions or ideas from each article.								
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A. Visit an amusement park. Then discuss the following with your counselor:								
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1. The simple machines present in the playground equipment								



WHOOSH! Patrol- Raven

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5. Do the following:								
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B. Discuss with your counselor:								
1. The simple machines present in your design								
2. The energy source powering the motion of your creation								
6. Discuss with your counselor how engineering affects your everyday life.								



WHOOSH! Patrol- Troll

1. Choose A or B or C and complete ALL the requirements.

A. Watch about three hours total of engineering-related shows or documentaries that involve motion or motion-inspired technology. Then do the following:

1. Make a list of at least five questions or ideas from the show(s) you watched.

2. Discuss two of the questions or ideas with your counselor.

B. Read (about three hours total) about motion or motion-inspired technology. Then do the following:

1. Make a list of at least two questions or ideas from each article.

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1. Make a list of at least two questions or ideas from each article or show.

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3. What you learned about motion from earning your merit badge

4. Choose A or B and complete ALL the requirements.

A. Visit an amusement park. Then discuss the following with your counselor:

1. The simple machines present in at least two of the rides

2. The forces involved in the motion of any two rides

B. Visit a playground. Then discuss the following with your counselor:

1. The simple machines present in the playground equipment

[illegible]



WHOOSH! Patrol- Troll

2. The forces involved in the motion of any two playground fixtures

5. Do the following:

A. On your own, design one of the following and include a drawing or sketch: an amusement park ride OR a playground fixture OR a method of transportation.

B. Discuss with your counselor:

1. The simple machines present in your design

2. The energy source powering the motion of your creation

6. Discuss with your counselor how engineering affects your everyday life.

Braden Dykstra

Braeden Chadwell

Brandon Derr

Brandon Foster

Gavin Culbertson	
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Hunter Sparks

Jack Akers

Jake Kerby

Jared Kerby

Jonathan Porter

Mason Cheney

Michael George



WHOOSH! Patrol- Viper

	Aaron Northup	CJ Hamann	DJ Claiborne	Koby Wheeler	Mathew Thompson	Thomas Hunt	Tim Brackus	Wesley Runner
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